technopolis group

International Science Partnerships Fund (ISPF)

Evaluation Framework

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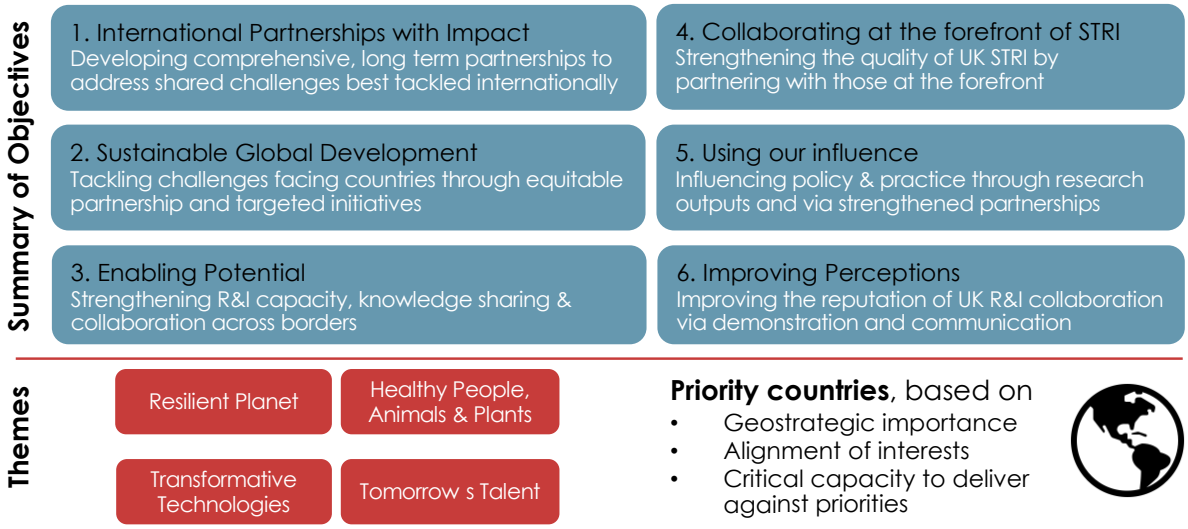
1 Executive Summary

This document presents the Evaluation Framework for **The International Science Partnerships Fund (ISPF**), an international science, research, technology and innovation (SRTI) initiative, funded and managed by the UK Department for Science, Innovation and Technology (DSIT).

The Fund was created to support international research and innovation (R&I) partnerships between the UK and other countries, and brings together **DSIT international funding – Official Development Assistance (ODA) and non-ODA – under a single structure**.

ISPF is delivered by a consortium of research and innovation bodies (ISPF Partner Organisations), who work with international partners in the design, funding and delivery of ISPF activities.

ISPF in a nutshell



ISPF will be comprehensively evaluated over multiple stages. The current study (and this evaluation framework) establishes the foundations and plans for the subsequent evaluation work. Given the long-estimated timescales for the full benefits of R&I to be realised, DSIT considers it too early to specify the details of stage 5 (impact evaluation), and so the focus of the current evaluation framework is just stages 2-4.

1. Evaluation Framework & Baseline	2. Process Evaluation	3. VfM Assessment	4. Summative / Effectiveness Evaluation	5. Impact Evaluation

The **Evaluation Framework has the following key features and characteristics:**

- It proposes a mixed-methods approach, underpinned by the **Theory of Change (ToC)** for the Fund (see Section 3). The ToC provides a "programme theory" that explains how an intervention (in this case the Fund) is expected to produce its intended results.

  It has a **logic model** as a starting point, which presents how the inputs to, and activities of ISPF are expected to result in a series of immediate outputs. The outputs should then lead to a series of intended short-to-medium term outcomes, and in turn contribute to wider and longer-term expected impacts.

- All elements of the ToC have then been translated into a set of **performance metrics,** for future monitoring and evaluation (M&E). This includes suggested indicators and evidence sources (qualitative and quantitative), plus recommendations for baselines and possible benchmarks (see Section 6.2).

  These performance metrics make maximum use of the existing evidence base and M&E efforts (i.e. data collected via the Annual Commission) while also identifying additional sources of information (**data sources** are described in Section 6.3).

- The evaluation framework also sets up three additional **synthesis methods** to estimate effectiveness and VfM, including a **Rubric-based Value for Money** approach, a **Qualitative Comparative Assessment** (QCA), and a **Return on Investment** approach (see Section 6.4).

  Most of the performance metrics feed into these methods, while others will still be analysed and reported on within the wider effectiveness evaluation.

- The framework includes a recommendation to develop **~20 longitudinal in-depth case studies,** each covering a specific ISPF programme and drawing on multiple sources to provide evidence across the ToC.

  The **in-depth case studies** will provide evidence to inform the effectiveness assessment following a **Contribution Analysis** approach (along with evidence on the mechanism that led to the achievement of benefits and contextual factors that hindered or enabled those). They will also provide the data needed to perform the VfM and QCA.

  The case study programmes have been selected using a multi-stage sampling framework approach to guarantee a good coverage across ODA/Non-ODA, budget sizes, ISPF theme and primary activity type. The sample also includes 15 of the 22 POs, and programmes with 13 ODA and 10 non-ODA partner countries (see Section 6.5).

Note that the approach set out in this document is intended to be **iterative, and to evolve** as the evaluation of ISFP progresses and more evidence becomes available. This could then lead to an update of the ToC and performance metrics (e.g., to capture effects not originally foreseen), and / or a change on the sampling strategy for in-depth cases studies.

2 Introduction

2.1 The Fund

The International Science Partnerships Fund (ISPF) is an international science, research, technology and innovation (SRTI) initiative, funded and managed by the UK Department for Science, Innovation and Technology (DSIT). It was created in 2022 to support international research and innovation (R&I) partnerships between the UK and other countries, and brings together DSIT international funding – Official Development Assistance (ODA) and non-ODA – under a single structure, enabling strategic alignment and coherence. The Fund is delivered by a group of UK Partner Organisations (POs), working bilaterally and multilaterally with international partners in the design, funding and delivery of ISPF activities.

2.2 The study

DSIT is committed to embedding evaluation into every facet of its work, ensuring policies and programs are driven by evidence and continuous improvement, that interventions deliver maximum impact, and that public funding is spent as effectively as possible. Monitoring, evaluation and learning (MEL) is important for the long-term success of ISPF. It ensures that there is robust evidence available to assess Fund performance and value for money (VfM), for learning and accountability purposes and to inform improvements to design and delivery of this or other initiatives. The approach, as set out in the ISPF MEL Plan, includes:

- Monitoring – regular and systematic data collection and reporting of performance data
- Evaluation – fund-level, commissioned by DSIT and conducted by independent evaluators
- Learning – dissemination of evidence and learning, to feed into continuous improvement

ISPF will be comprehensively evaluated across multiple stages, to understand how it was delivered and experienced (process), the extent to which it represents VfM, the extent to which it achieved intended outcomes (effectiveness) and an assessment of its impact.

Figure 1 Summary of ISPF Evaluation Stages

The current study covers the preliminary stage (Evaluation Framework & Baseline), establishing the foundations and plans for subsequent evaluation work. Given the long estimated timescales for the full benefits of R&I to be realised, DSIT considers it too early to specify the details of stage 5 (impact evaluation), and so the focus of the current study is stages 2-4.

2.3 This report

This report presents the **evaluation framework** (including finalised Theory of Change (ToC), performance metrics and methods) that will ensure an appropriate and robust process for data collection, monitoring and evaluation is established, agreed, and planned from the start. It also provides first insights into the Fund itself, through an initial mapping of the ISPF portfolio.

The Evaluation Framework and portfolio analysis seek to address the following questions:

1. Have ISPF activities been designed to achieve the Fund's objectives?
2. Are the right KPIs and reporting processes in place to effectively monitor ISPF performance and achievements, to assess VfM and answer evaluation questions?
3. What does VfM look like in ISPF? How can DSIT and POs contribute to good VfM?
4. How should ISPF evaluation in stages 2-4 be designed to answer the evaluation questions? What evaluation methods should be used?

The study will also include a separate **baseline assessment** of key indicators (and an updated mapping and analysis of the ISPF portfolio), to be delivered later in 2025.

2.4 The approach

This evaluation framework represents the culmination of a series of different workstreams that have been undertaken over the past year (as summarised in Figure 2). The report incorporates the intermediate outputs developed through these various activities and combines them to provide a comprehensive and cohesive framework for future evaluation activity.

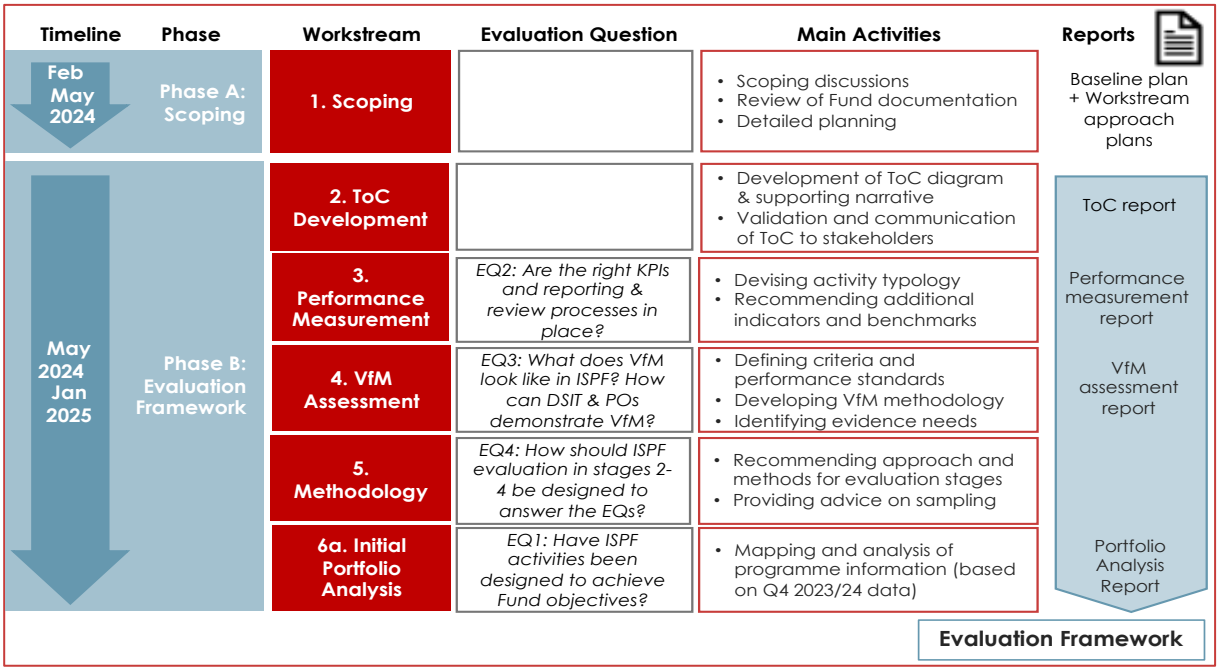
Following an initial scoping phase, the main workstreams have involved the development of:

- A **Theory of Change** (diagram and narrative) for the Fund (see **Section 4**)
- An analysis of the current **ISPF portfolio** (programmes, awards, funding) (see **Section 5**)
- A set of **performance metrics** (indicators and evidence sources, plus recommendations for baselines and possible benchmarks) for future monitoring and evaluation (see **Section 6.2**)
- A proposed **approach and methods**, plus relevant data collection approaches and sources, for evaluation (covering effectiveness, process and VfM) (**Section 6.3 onwards**)
- A rubric (criteria, dimensions, standards and sources) for the assessment of **Value for Money** across the ISPF portfolio (introduced in **Section 6.4.2** and presented in **Appendix E**)

Across the workstreams, we have combined desk-based research (of Fund documentation and data, plus wider literature), with stakeholder consultation (interviews, workshops, meetings, presentations and correspondence with DSIT analyst, policy and portfolio management teams, plus representatives from all Partner Organisations), and extensive development and analysis work by the study team, to arrive to the various outputs that now form part of this evaluation framework. Further details on the approach to each workstream are provided in Appendix A.

There are two further workstreams to be undertaken following the production of the evaluation framework. These are an updated analysis of the ISPF portfolio (based on latest data) and a baseline assessment of key indicators. These will be delivered later in 2025.

Figure 2 Summary of activities



3 The International Science Partnerships Fund (ISPF)

3.1 The Fund

Through a global, partnership-based approach, ISPF seeks to deliver on three key missions within the Integrated Review (2021): establishing the UK as a science superpower; being a force for global good; and putting science and technology at the heart of UK international relations.

As summarised in Figure 3 (with further detail provided in Appendix B), the Fund **aims** to address global challenges best tackled collaboratively, by empowering individuals, institutions, and systems to deliver enhanced outcomes and impacts, as well as positive international influence and improved perceptions for the UK. It addresses four **main themes** that relate to major challenges ('resilient planet', 'healthy people, animals & plants', 'transformative technologies') and supporting the talent necessary to address these ('tomorrow's talent'). It does so through equitable partnerships with **partner countries** selected for their geostrategic importance, alignment, and critical capacity to deliver against the Fund's objectives and Themes.

ISPF is designed to be a long-term fund, but with an initial **£337m in the current Spending Review (SR) period** (FY 2022/23 to 2024/25), of which £218m is ring fenced for ODA to deliver research and innovation partnerships with low- and middle-income countries (LMICs) (and, within this, at least 20% delivered for the benefit of Least Developed Countries (LDCs).

Figure 3 Summary of ISPF objectives, scope and themes

3.2 Implementation

ISPF was announced during a ministerial visit to Japan in December 2022. The first phase was launched in April 2023, utilising £119m non-ODA funding over a two-year SR period. Then in July 2023 it was confirmed that ISPF would have up to £218m additional ODA funding, for research and innovation partnerships with LMICs. As such, the Fund combines **ODA and non-ODA** funded SRTI activities within a single portfolio. As shown in the portfolio analysis (Section 5), during the initial three-year period, 62% of budget allocations and 33% of programmes relate to ODA funding, with 38% and 67% respectively therefore relating to non-ODA funding, and with 15 of the 22 POs delivering across both.

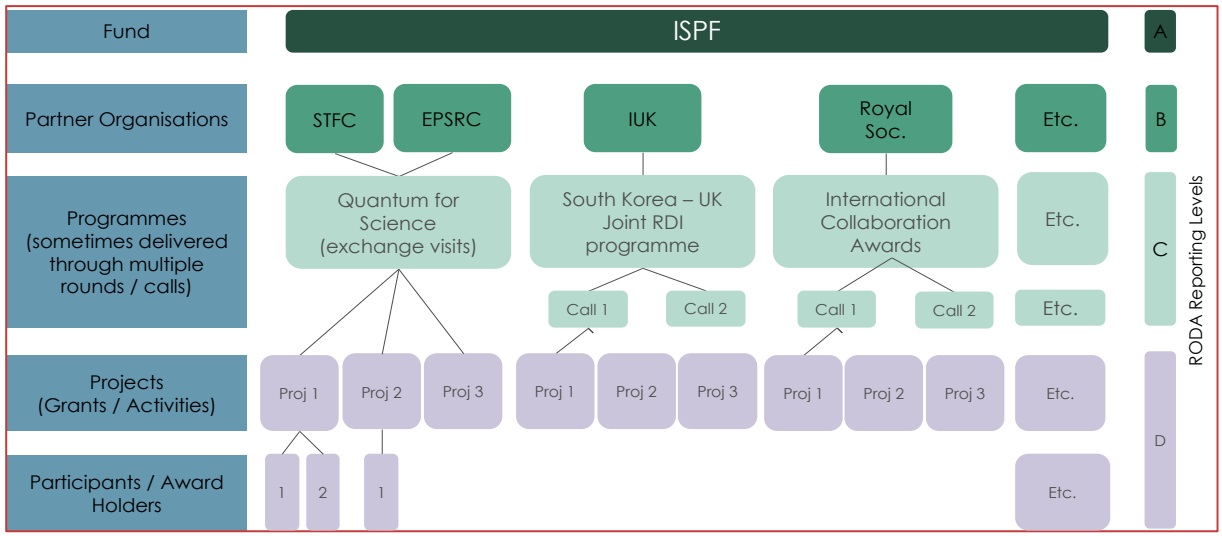
The Fund is managed by DSIT, but **implementation is decentralised** to a consortium of leading research and innovation bodies (see Figure 4).

Figure 4 ISPF Partner Organisations

It is at this PO level that the Fund is translated into **programmes**, which are then managed as coherent packages of work. The Fund is designed to respond to priorities identified by Government, with DSIT setting the strategic direction through objectives, research themes and priority countries. However, ISPF POs are then empowered to design relevant calls, investments and other activities to reflect these priorities and any emerging demands they identify.

Across the resulting portfolio, ISPF supports all stages of research and innovation, from early stage, foundational research, through to applied research and commercialisation, as well as skill, talent and capacity development.

Figure 5 Overview of the ISPF portfolio structure



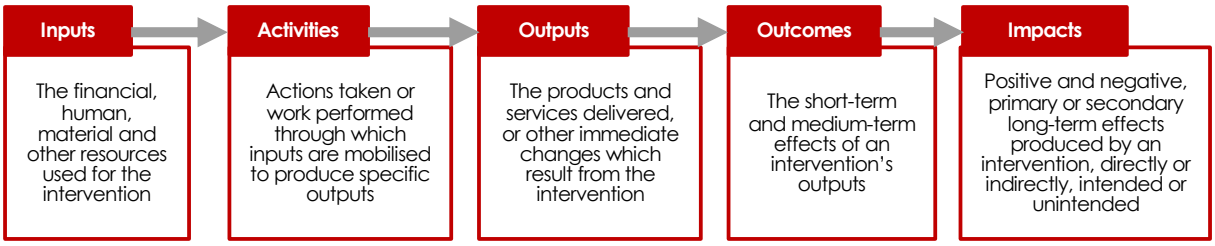
Additional to research grant funding, and reflecting the "dual support" model of research funding in the UK for investment via UKRI, ISPF also makes available an equivalent amount of **unhypothecated institutional support funding** (also known as Quality Research funding). This funding (£55.8m over 2023/24-2024/25) is delivered through Research England, the Scottish Funding Council, the Commission for Tertiary Education and Research Wales (MEDR) and the Northern Ireland Department for the Economy. Though unhypothecated, the ODA-funded institutional support must be used for ODA-eligible outcomes, and is allocated proportionally to the level of ODA-eligible activity undertaken by a given Higher Education Partner.

4 ISPF Theory of Change

4.1 Introduction

A Theory of Change (ToC) is a "programme theory" that explains how an intervention (in this case the Fund) is expected to produce its intended results. It has a **logic model** as a starting point, which presents how the inputs to, and activities of ISPF are expected to result in a series of immediate outputs, which should then lead to a series of intended short-to-medium term outcomes, which in turn should contribute wider and longer-term intended expected impacts.

Figure 6 Summary of Logic chain



A preliminary Logic Model (Appendix B.3) was developed by DSIT for the ISPF Business Case. This presented the objectives of the Fund, as well as planned inputs and activities, and the outputs, outcomes and impacts that these were expected to contribute to. This diagram needed to be reviewed, updated and further developed as part of the current study to reflect more recent changes to the design and intentions of the Fund, including updated objectives.

The approach to ToC development incorporated a desk-based review of relevant ISPF documentation (Business Case, MEL Plan, Fund Strategy, etc.), consultation with DSIT Policy and Analyst Teams and ISPF Partner Organisations (POs) via three workshops, and development work by the evaluation team. An early version of the new ToC diagram was shared with DSIT and Partner Organisations for comments and feedback, while the full draft ToC diagram and narrative that was developed was further iterated with DSIT before being finalised.

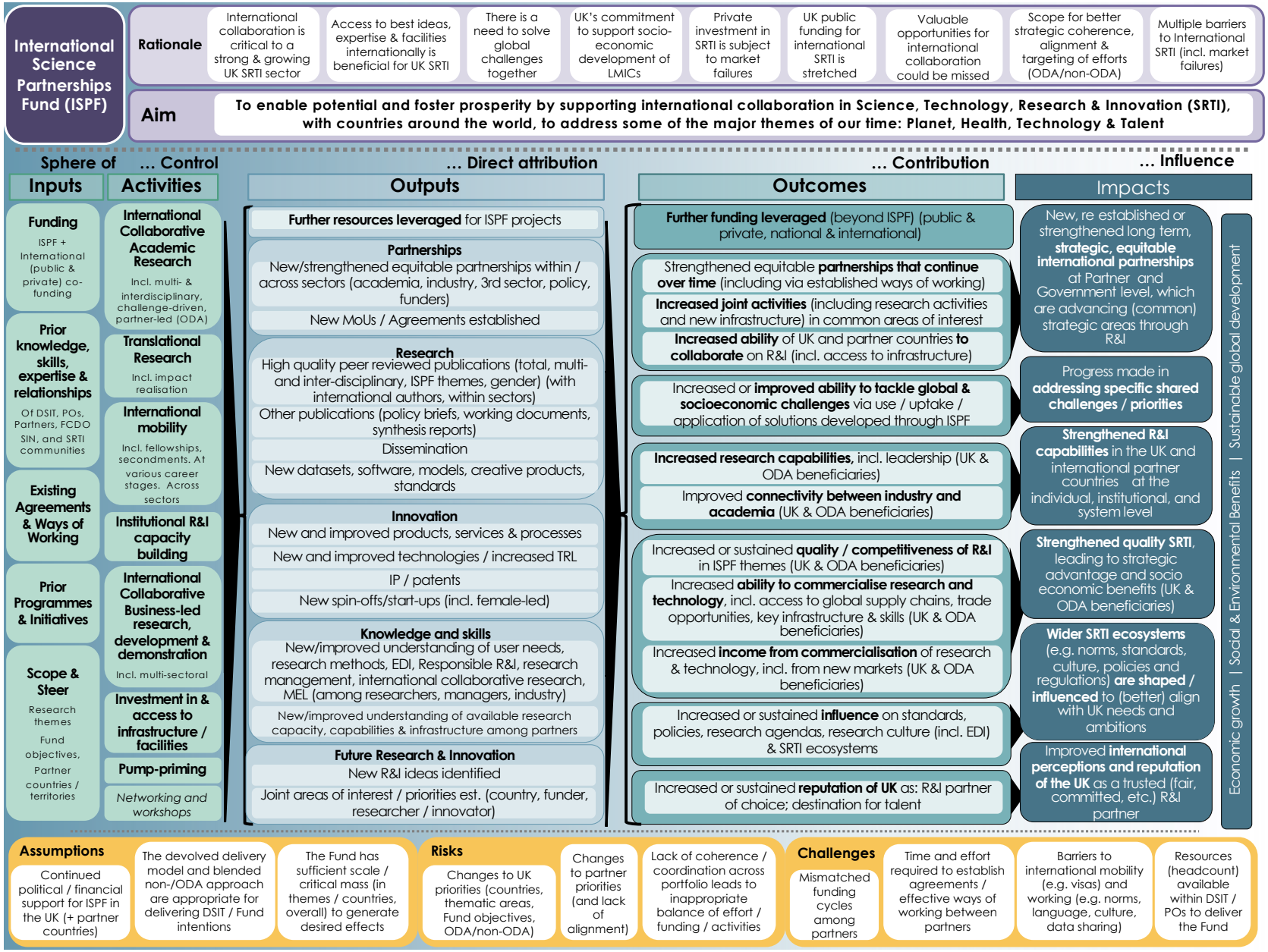
The new ToC (set out in the remainder of this section) has served as the foundation for many of the other elements then developed for this evaluation framework (e.g. the proposed indicators and value for money rubric). As such, it provides the framework against which the Fund itself will be evaluated in future (e.g. as the basis for assessing progress and achievements). It is also envisaged that the new ToC may be useful in communicating the Fund to different audiences, and in helping to increase understanding and engagement with ISPF and its intentions.

4.2 ISPF ToC diagram

Figure 7 presents the high-level **ToC diagram for ISPF**. This seeks to capture the main intentions and expectations for the Fund, in a structured way within a single diagram, and allow for these to be easily understood and communicated.

Given the complex nature of ISPF, not all elements of the ToC are presented in the diagram. Specifically, the diagram does not show how the different components (activities, outputs, outcomes and impacts) relate to each other. These connections (impact pathways and assumptions) are further discussed in the pages that follow.

Figure 7 ISPF ToC Diagram



4.3 ISPF ToC Narrative

4.3.1 Rationale for ISPF

Science, research, technology and innovation (SRTI) have long been identified as key engines of economic growth, prosperity and wellbeing. The UK's future success as a strong, influential country, whose citizens enjoy prosperity, security, and fulfilled, healthy and sustainable lives, will depend on its ability to build on existing SRTI strengths. **International collaboration is critical to ensuring a strong and growing UK SRTI sector**; it can enhance the efficiency, effectiveness and quality of SRTI, and can deliver better outcomes. Citation impact is measurably higher for internationally co-authored papers, relative to national-only ones, while collaborating internationally produces outputs that are 1.1-1.8x more impactful than UK-only collaboration.[1]

Access to the best ideas, expertise and facilities internationally is beneficial for UK SRTI. With over 95% of R&I conducted outside the UK[2], much knowledge, expertise and infrastructure sit elsewhere. Increasing access to global opportunities and talent will help the UK to remain at the forefront of cutting-edge SRTI, in particular providing access to:

- A range of opportunities for UK researchers and innovators to engage in international collaboration that would not otherwise occur
- A global talent pool and facilities to capitalise on and strengthen those of the UK

By pooling resources, the UK can do bigger, better science than it can alone; by sharing knowledge we avoid reinventing the wheel and have access to more expertise; and by working collectively we take more diverse approaches and deliver more creative solutions.

Another increasing driver of international collaboration is **the nature of the challenges themselves, and the need to solve these together**. Key issues such as carbon emissions and extreme weather, global pandemics, or new and emerging technologies do not respect national boundaries. They increasingly happen at a global scale, and require a global response. For this reason, it is important to make sure UK scientists, researchers and innovators can access not just other UK-based researchers and institutions, but act through global partnerships and networks. Through establishing these international partnerships, we are better positioned to address challenges head-on and systematically, as opposed to piecemeal. By working together on challenges we share with other countries, we are also better able to address these at home.

The UK is also committed to being a force for global good and to **supporting the socio-economic development of LMICs**. With the majority of the world's population living in these countries, and the impacts of global challenges being disproportionately felt by those who have the least, it is imperative that the UK act to safeguard those most in need, and commit its fair share of funding and expertise to solving these challenges. As was highlighted in the October 2023 International Development White Paper[3] there is a need for a collective global

[1] HMG (2022). International comparison of the UK research base

[2] NCSES Indicators 2022: https://ncses.nsf.gov/pubs/nsb20221/u-s-and-global-research-and-development

[3] HMG (2023) International development in a contested world: ending extreme poverty and tackling climate change, a white paper on international development.

mobilisation of scientific expertise, research and innovation at the midpoint of the Sustainable Development Goals (SDGs) to accelerate progress to 2030. This includes enabling countries to leapfrog carbon-intensive phases of industrial development; using innovation and technology to tackle poverty, create jobs and sustainable economic growth; addressing biodiversity loss and harnessing nature-based solutions; and being better prepared for and more resilient to the impacts of climate change, including to avert future humanitarian crises.

Private investment in R&D is subject to many market failures, including economies of scale, information asymmetry, and positive externalities – where investors cannot reap the full value of investment, as knowledge spills over to competitors. The economic case for public support to address these failures (and sub-optimal levels of investment that result), is well established[4].

With regards specifically to international collaboration in SRTI, there is the additional challenge of coordination failure, with substantial barriers to collaboration. A 2018 Technopolis study on the main drivers and barriers to international collaboration[5] identified that there was demand to do more collaboration with strategic partner countries, but that individual research organisations and UK businesses do less than they would wish to because **multiple barriers exist to international SRTI**. These include financial barriers and international resource constraints, but also the availability of collaboration frameworks and information about partners, regulatory issues, and the recognition and enforcement of IP, as well as issues related to researcher mobility and recruitment. Government intervention, removing barriers to collaboration through collaboration frameworks and dedicated international funding, is critical in addressing these.

Public sector funding for international R&D faces challenges, however. The ISPF Business Case noted that (in 2022) **funding for international collaboration was stretched**, with international non-ODA funding outside of Horizon Europe limited to relatively small elements of Partner Organisations' core budgets or UKRI's Fund for International Collaboration. Neither of these sources on their own were considered sufficient to keep up with both UK and international SRTI demands. The Business Case also notes that significant ODA budget cuts (a 65% reduction in the Spending Review 2020) had limited the ability to deliver against HMG priorities and was felt to have severely impacted the reputation of the UK as a reliable research partner.

There is a **risk that valuable opportunities are missed** due to a lack of available budgets. The ISPF Business Case notes that UK R&I Partner Organisations report increasing demand from Partner Countries to either grow existing relationships, or to create new partnerships, but that these opportunities are rarely captured due to a lack of available budgets. Examples and evidence were provided, covering both ODA and non-ODA funding. Not being able to invest in these opportunities may also mean ground is lost to other countries who are able to invest.

Finally, there is potential benefit from **greater coherence, alignment and targeting of efforts.** By centralising a large proportion of international SRTI funding under one funding vehicle, DSIT has opportunities to (i) ensure better coherence across all international R&D spend; (ii) create stronger alignment with government and ministerial priorities; and (iii) allocate funding according to where it can deliver the best value for money and most benefit society. It can

[4] HMG (2014). The case for public support of innovation at the sector, technology and challenge area levels

[5] Technopolis (2018) Drivers and Barriers for Collaboration, prepared for BEIS (not published yet).

also allow for a more balanced portfolio in terms of risk (i.e. greater risk taking than might otherwise be the case), thereby delivering higher, more impactful returns overall.

4.3.2 Aims and objectives

The **overall aim** of ISPF is to enable potential and foster prosperity by supporting international collaboration in Science, Research, Technology and Innovation (SRTI), with countries around the world, to address some of the major themes of our time. **Four themes** have been identified:

- Resilient Planet, including contributing to humanity's efforts to reduce carbon emissions, mitigate against climate change and adapt to the impacts of it.
- Transformative Technologies, including forming and strengthening industry-academia partnerships that bring forward emerging technologies and the business know-how to help them flourish.
- Healthy People, Animals and Plants, including advancing innovative health technologies and deepening our understanding of pandemics, genomics, and pathogen detection, as well as improving our understanding of the socio-cultural mechanisms underpinning our relationship with vectors of health and disease.
- Tomorrow's Talent, including connecting researchers and innovators, supporting their professional development and the translation of their ideas into businesses and products, and building global research networks.

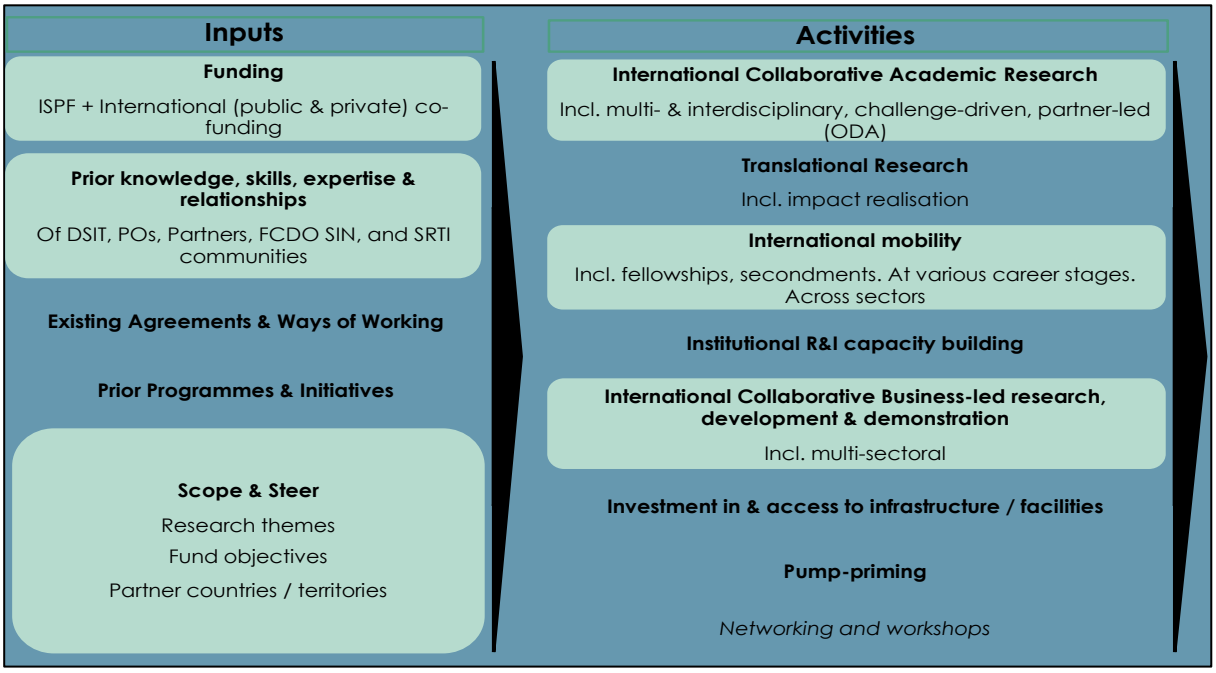
ISPF has **six high-level objectives** relating to the overarching ambitions of the Fund:

- International partnerships with impact: Deliver better R&I together than we could alone, by developing long-term strategic international partnerships at every level to address shared priority areas
- Addressing shared / global challenges: Support sustainable global development and address specific challenges facing low, medium and high income countries, by developing equitable partnerships and delivering targeted programmes and initiatives that contribute to government strategic priorities
- Enabling potential: Strengthen R&I capacity for UK and international partners at individual, institutional and system level, by empowering talented individuals and teams, by promoting knowledge sharing and collaboration across borders, disciplines and sectors, and by supporting the development of new ideas
- Collaborating at the forefront of SRTI: Strengthen the quality of UK SRTI, by collaborating with international partners at the forefront of SRTI, benefitting society and generating strategic advantage
- Using our influence: Help the UK to shape and influence global standards and norms, by working closely with government agencies, international organisations, civil society, and others to advance a shared agenda on issues such as data protection, IP, open science, and privacy
- Improving perceptions: Help improve the reputation of the UK and UK R&I by building long-term relationships, working in a fair and transparent way, and demonstrating the benefits of our international partnerships

4.3.3 *Inputs and activities*

Figure 8 shows the **inputs and activities section of the ISPF ToC diagram**. These elements are described in more detail below.

Figure 8 ISPF ToC Diagram – Inputs and Activities



One of the main inputs to ISPF is **funding** to support international SRTI collaboration. This includes UK government funding (an initial £119m of non-ODA spend and £218m of ODA spend for FY 22/23-24/25), plus public and private **co-funding** (in cash and in-kind) from partner countries. Contribution levels will vary across the ISPF portfolio, but there are specific considerations for Least Developed Countries[6], where there is no *requirement* for co-funding given the material pressures of LDCs, but without prejudicing their ability to contribute where they desire to.

The Fund is managed by DSIT and delivered by a consortium of leading research and innovation bodies, listed below.

[6] Least Developed Country is a legally established term, with the definition of countries proposed by the Development Assistance Committee (DAC) of the Organisation for Economic Cooperation and Development (OECD). It refers to countries with low development scores across a variety of metrics, and is different to defining countries as Low-, Middle- or High-Income (purely a measure of per capita income). See: https://unctad.org/topic/least-developed-countries/list

- Academy of Medical Sciences (AMS)
- British Academy (BA)
- British Council (BC)
- Royal Academy of Engineering (RAEng)
- Royal Society (RS)
- UK Atomic Energy Authority (UKAEA)
- Universities UK International (UUKi)
- Met Office (MO)
- National Physical Laboratory (NPL)
- Connected Places Catapult (CPC)*
- Energy Systems Catapult (ESC)*
- Offshore Renewable Energy Catapult (OREC)*
- The Faraday Institution (FI)*
- Arts and Humanities Research Council (AHRC)
- Biotechnology and Biological Sciences Research Council (BBSRC)
- Economic and Social Research Council (ESRC)
- Engineering and Physical Sciences Research Council (EPSRC)
- Innovate UK (IUK)
- Medical Research Council (MRC)
- Natural Environment Research Council (NERC)
- Science and Technology Facilities Council (STFC)
- UK Research and Innovation (UKRI)

**Associate POs*

Alongside funding allocation, DSIT also provides **guidance and steer on the scope and intentions of the Fund** (e.g. objectives, themes and partner countries / territories). Wider policy steer for ISPF can also be found in other policy documents, including the Integrated Review and International Development White Paper[7] (alongside ISPF specific policies on areas such as equitable partnerships, and ODA eligibility as stated in the International Development Act).

The Fund is designed to respond to priorities identified by government, with DSIT setting the strategic direction. However, ISPF POs are then empowered to design relevant funding calls and activities to reflect these priorities and any emerging demands they identify.

The Fund also benefits from **prior knowledge, skills, expertise and relationships** of stakeholders involved (DSIT, POs, International Partners, FCDO, SIN and SRTI communities). This includes building on and learning lessons from **past programmes and initiatives** – including those supported through the Newton Fund, the Global Challenges Research Fund (GCRF) and the Fund for International Collaboration (FIC) – as well as **existing agreements and ways of working**.

ISPF supports all stages of research and innovation, from early stage, foundational research, through to applied research and commercialisation, as well as skill, talent and capacity development. There are eight **main types of activities** currently supported across the portfolio (although individual ISPF programmes may involve a combination of these)[8]:

- International collaborative academic research: These tend to be typical collaborative R&D and Innovation projects (with research plans and expected R&I outputs). They include multi- and interdisciplinary, challenge-driven and (in the case of ODA) partner-led activities

[7] N.B. The IDWP was developed as a cross-party document and remains valid after the 2024 change in government; the Integrated Review was explicitly a policy document of the previous government and as such should not be considered current policy.

[8] The definition of the typology was based on desk research (a review of documentation on the Fund and programmes) and a process of consultation, iteration and validation with DSIT and POs (via meetings and workshops). ISPF represents a large (and growing) portfolio of varied activities (not all of which have yet been fully defined), being delivered by different partner organisations who use varying terminology and categorisations in their own operations. Arriving at single Fund-wide categorisation was therefore not without challenges. However, POs were invited to tag each of their programmes using one or more of the proposed categories (and to indicate the *main* type for each programme), and all were able to do so.

- Translational research: Researchers turn scientific discoveries from laboratory-based research into real-world applications, developing new products and services. These activities might support discoveries maturing from basic research to clinical trials and commercial development, as well as the development of prototypes and patents.
- International mobility: Researchers (both from the UK and partner countries) participate in training and secondment activities. These vary in length and intensity, and include both short visits (e.g. better understanding available research resources and infrastructure) and longer stages that will usually involve working on a particular research topic, as well as access to personnel and infrastructure.
- Institutional R&I capacity building: These activities focus on strengthening the ability of institutions (universities, research organisations, industry partners) to conduct SRTI activities. Funding might support the development of new interdisciplinary research programmes, doctoral training partnerships, support for knowledge and exchange activities and funding for early-career researchers.
- International collaborative business-led research, development & demonstration: These activities encourage businesses to collaborate with international partners, including to explore new markets or to develop new or improved products, processes and services.
- Investment in access to infrastructure / facilities: These activities support access to and development of research infrastructure. They are expected to lead to the generation of knowledge and expertise within the context of the programme, as well as future research avenues (which may then take place outside of the ISPF programme).
- Pump priming: These activities support initiatives for early-stage research, the exploration of new ideas or the development of future projects. For example, ISPF funds small projects or feasibility studies that are exploring new ideas or concept to assess their viability for further research (which would be funded and conducted beyond the ISPF programme).
- Networking and workshops: Activities such as visits, workshops, conferences and joint working that support idea generation and the exploration of common areas of research interest, partnership building, scoping and preparation of future research proposals. These activities are expected to generate new proposals, develop new partnerships between researchers, identify avenues for further collaboration and share research best practice.

As such, ISPF provides holistic support to international collaborative R&I, including the research itself, as well as enabling / adjacent activities such as partnership building and skills development, capacity building for future collaboration, and access to research infrastructure.

Assumptions

There are a number of assumptions (and associated risks and challenges) for the Fund and its ambitions overall. They relate to the design and delivery of the Fund, and so are mentioned here, but apply to the realisation of expectations across the ToC. They include:

- Financial and political support for ISPF continues (at a sufficient scale, and beyond the current funding period). This mainly relates to UK Government / DSIT support and funding, but also applies to Partner Organisations in the UK and International Partners, whose ongoing interest and commitment to the Fund is important.

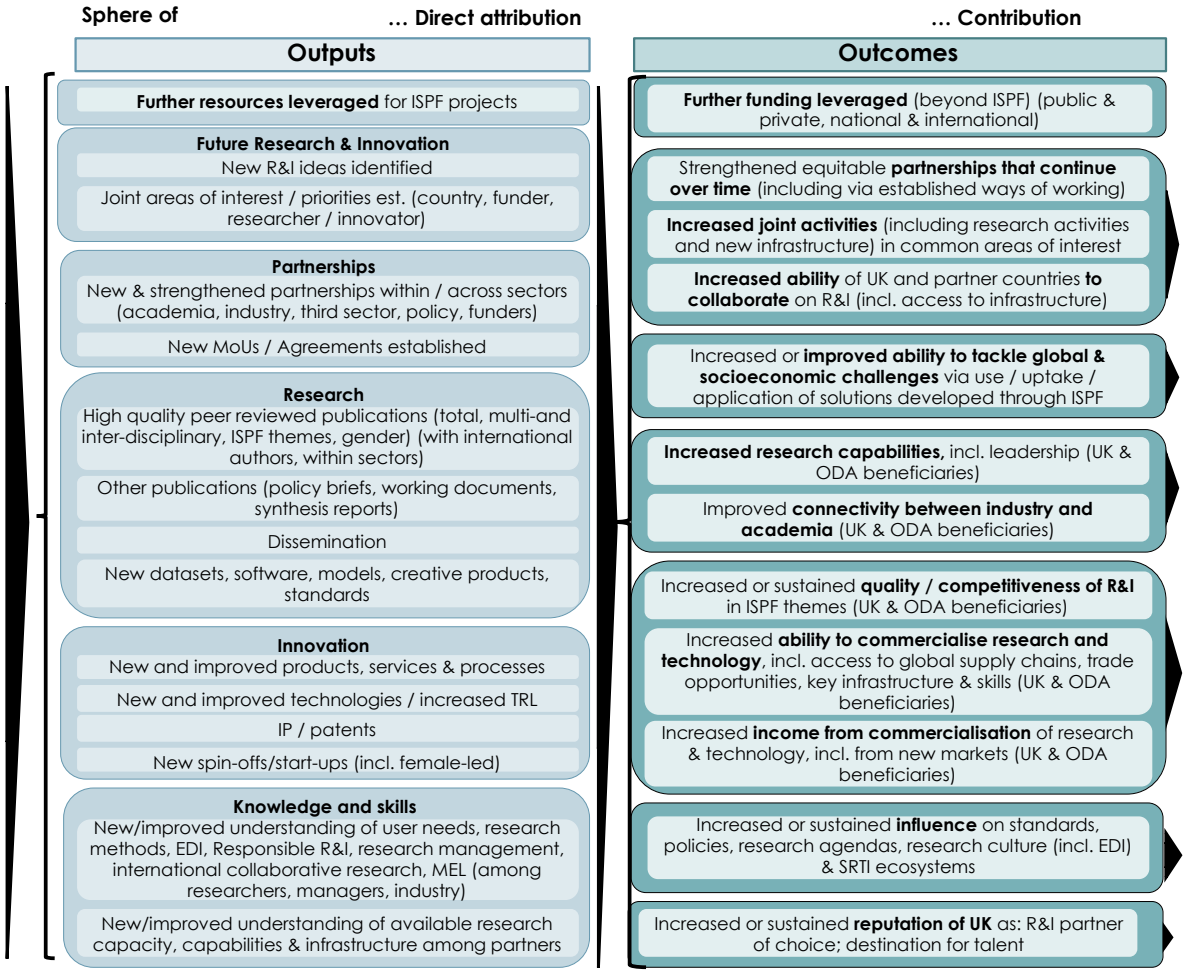
- Current priorities are maintained (e.g. in relation to themes, countries, ODA/non-ODA). Again this primarily relates to shifts in UK Government / DSIT priorities, but changes in other partners could also create mis-alignment with ISPF's scope and activities.
- The design of the Fund is appropriate to effectively deliver against expectations. This includes key features of ISPF, such as: the devolved delivery model – i.e. a Fund managed by DSIT, but delivered by a consortium of POs; the blended non-/ODA approach within a single fund; the choice of Priority Themes which are broad in scope rather than more specific challenges or missions; and a defined list of eligible Countries and Territories.
- The Fund has sufficient scale to contribute meaningfully to wider and longer-term effects. A critical mass may be required overall, but also across different themes, countries, partners and types of activity. Linked to this and the previous point, there is a risk from the devolved delivery approach of a lack of coordination or coherence across the portfolio, resulting in an inappropriate balance of funding or activities, or missed synergies.
- There is sufficient time and capacity to deliver (e.g. in terms of there being sufficient human resources within DSIT / POs and sufficient calendar time available to establish and deliver programmes), which may be further exacerbated by factors such as mis-matched funding cycles among partners, or the time and effort required to establish agreements and effective ways of working (e.g. around data sharing).
- Other practical challenges to implementation in terms of e.g. mobility (visa issues) and international working (different norms, languages, cultures) are minimal or can be overcome.

4.3.4 *Outputs and outcomes*

Figure 9 shows the **outputs and outcomes section of the ISPF ToC diagram**, which are the Fund's spheres of direct attribution and contribution, respectively. Outputs are expected to materialise as the ISPF projects and programmes progress, while outcomes are expected to emerge between 0-3 years after ISPF projects and programmes have ended.

These elements are described in more detail below.

Figure 9 ISPF ToC Diagram – Outputs and Outcomes



By conducting the activities detailed in the previous section in collaboration with International partners, ISPF programmes are expected to **leverage further resources for ISPF projects and activities** (i.e. extra funding beyond the initial inputs, capacity, and other resources). These are outputs of ISPF (in that ISPF serves as a mechanism to attract international funding), but also serve as additional inputs to Fund (alongside ISPF expenditure and partner co-funding).

In terms of other outputs and outcomes expected from ISPF activities, these have been grouped into the five broad areas below (although there are cross-overs and interlinkages between these different areas, with multiple pathways from individual outputs to outcomes).

Partnership outputs & outcomes

The design and implementation of many ISPF activities will support **the creation of new partnerships**, or the **further strengthening of existing partnerships**, between individuals, institutions and organisations, and countries, across borders and across sectors (academia, industry, third sector, policy, funders). This may be supported or recognised through the **establishment of new or strengthened agreements or Memorandums of Understanding (MoUs)** between these different parties.

It is anticipated that these specific **partnerships will continue over time,** beyond the life of ISPF, and more generally that there will be an **increased ability for the UK and partner countries to collaborate,** as a result of new knowledge and understanding, increased access, or enhanced ways of working. In both cases, this should result in an overall **increase in joint activities in common areas of interest** (be that joint research, investment, coordination, etc.). Improved **connectivity between industry and academia** is also expected (in particular for UK and ODA participants), as information and knowledge are shared in the context of ISPF and through further partnerships and collaborations that are enabled by the Fund. More generally, it is anticipated that ISPF partnerships and interactions will help increase or sustain the **reputation of the UK** as an R&I 'partner of choice' or as a destination of choice for talent and investment.

Assumptions

Partnerships and interactions have developed positively, with mutual benefits for those involved.

Partnerships have been institutionalised, either via formal or informal means, such that they can remain over time, regardless of whether the individuals involved change positions or organisations.

ISPF funded activities have enabled new partnerships between industry and academia that did not exist before, improving connectivity.

Research outputs & outcomes

Many ISPF activities – particularly collaborative R&D and activities relating to infrastructure investment / access - are expected to lead to (typical) R&I outputs. This includes **high quality peer reviewed publications** co-authored between UK and international researchers, but also **other types of publications**, including policy briefs, working documents and synthesis reports, that are tailored to audiences outside academia (including policy makers and industry). **Other types of research outputs are also expected** (new datasets, software, models, creative products and standards), depending on the nature of the specific activity.

Given the focus of ISPF funded activities on solving common challenges it is also expected that research outputs will have a high degree of inter- and multi- disciplinary, in addition to providing new or enhanced knowledge on areas related to the ISPF themes.

In line with the EDI commitments of ISPF, it is also expected that there is a proportional gender balance in the authorship across those research outputs, as well as an equitable representation of UK and international researchers.

Furthermore, in the case of the research outputs emerging from ODA-funded activity, it is expected that they are focused on improving the socioeconomic development of LMIC/LDCs.

Dissemination of these various outputs will take place via various means (e.g. conferences and presentations, social media, teaching and training activities).

These research outputs are expected to help increase or sustain the **quality and/or competitiveness of R&I** in ISPF themes (in particular for UK and ODA participants), as well as exert **influence** on wider SRTI ecosystems, including, through contributions to the development of standards, policies, research agendas and the strengthening of research cultures (with the latter being also influenced by knowledge and skills outputs, described below).

The use, uptake and application of solutions developed through ISPF are also expected to increase or improve the ability to tackle global and socioeconomic challenges (through e.g. their influence on policy and standards, or on the products and services available).

Assumption

ISPF-funded research tackles global and socioeconomic challenges and this is widely disseminated among (and accessible to) relevant end-users.

Innovation outputs & outcomes

Translational research and business-led innovation in particular, are expected to lead to (typical) innovation outputs, including **new and improved products, services and processes**, as well as **new and improved technologies** (with an increase in the technology readiness level (TRL)), plus **Intellectual Property or patents** and **new spin-offs or start-ups**.

These outputs are expected to increase the **ability to commercialise research and technology** (in particular for UK and ODA participants), including access to global supply chains, trade opportunities, key infrastructure and skills. In the long-term, this should lead to **increased income from commercialisation** of research and technology (in particular for UK and ODA beneficiaries), including from new markets explored through ISPF activities. Innovation outputs may also help tackle shared challenges.

Assumptions

Support provided by ISPF, and progress made is sufficient to support commercialisation or to unlock further resources for developments towards commercialisation (de-risking).

There is also an assumption that successful innovation outcomes would outweigh the (inevitable) failures. Related to this, the extent and breadth of innovation outputs and outcomes will in part be dependent upon the share of the ISPF portfolio that is dedicated to translational and business-led research (where these outputs and outcomes are much more likely, at least in the shorter-term).

In the case of ODA programmes/projects, there is also the assumption that international partners are able to commercialise or benefit from the commercialisation of research and technology emerging from their joint ISPF activities with UK partners.

Knowledge and skills outputs & outcomes

Finally, project activities (particularly those that focus on capacity building) are expected to lead to the development of new knowledge and skills, including **new and improved understanding** among researchers, managers and industry, of various aspects including:

- (Research) user needs, not only in terms of topics but also how best to make evidence accessible to wider audiences
- Research methods
- Common challenges and priorities
- How best to manage domestic and international R&I projects
- How best to incorporate EDI in the research design and implementation
- How best to implement Responsible R&I, at institutional and project level

These various outputs should also support **increased research capabilities,** including research leadership, for both UK and ODA beneficiaries.

ISPF activities are also expected to lead to **new and improved understanding of available research capacity, capabilities and infrastructure among partners.** This is particularly relevant for some POs (e.g. STFC), where it is expected that this may lead to an increased demand for those facilities and future joint ventures.

Assumption

Learnings are socialised in such a way that they remain over time, regardless of whether individuals involved change positions or location.

Future research and innovation

Projects are expected to lead to the establishment of **joint areas of interest and joint priorities,** at the country, funder, and researcher or innovator level, as well as to the **identification of new R&I ideas** that may be pursued in future, possibly through international partnership.

As proposals are co-developed to take these projects and ideas forward, it is expected that researchers and innovators behind those ideas are able **to leverage further funding** (public & private, national & international), beyond initial ISPF funding and awards. This may take the form of further grants, or investments, or the use of internal resources.

Assumption

There is funding available (in the UK / internationally) to support projects and ideas emerging from ISPF funded activities.

4.3.5 Impacts

ISPF is expected to contribute to (influence) the attainment of impacts that relate closely to its high level objectives (outlined in Section 4.3.2 above). These impacts are expected to materialise in the medium to longer term, between 4-10 years after ISPF projects and programmes have ended. They include:

- New, re-established or strengthened long-term **strategic international partnerships**, at Partner-and Government level, **that are advancing common strategic areas in R&I**
- **Strengthened R&I capabilities in the UK and in international partner countries**, at the individual researcher, institutional, and system level
- **Strengthened SRTI quality**, **which is leading to strategic advantage and socio-economic benefits** for both UK and ODA beneficiaries.

These increases in SRTI capabilities, quality and joint-working are also expected, over time, to support progress towards other areas of impact, including the **addressing of specific shared challenges / priorities; and the delivery of social and environmental benefits**. This connects back to the original rationale for intervention (Section 4.3.1), and the fact that challenges such as carbon emissions and extreme weather, global pandemics, or new and emerging technologies are best addressed internationally, through shared ideas, expertise and facilities.

There is also the expectation that strengthening international R&I partnerships could **support wider diplomatic efforts and enhance the UK's soft power and influence**, which in turn could also support better terms and conditions in terms of economic policy (e.g. trade agreements).

There is also the expectation that innovation (and a strong SRTI sector) can deliver **economic growth**, by supporting increases in productivity and competitiveness.

Finally, additional expected impacts from ISPF relate to supporting the global strategic position of the UK, and the opportunities and advantage that this enables. This includes through:

- **The shaping and influencing of wider SRTI ecosystems** to (better) align with UK needs and ambitions (for example through norms, standards, culture, policies and regulations)
- Improved **international perceptions and reputation of the UK** as a trusted (fair and committed) R&I partner for future joint-working and investment.

These two impacts will also have positive feedback loops to other impact areas described above, including in particular the advancing of common strategic areas and addressing of shared challenges, and support to wider diplomatic efforts.

Assumptions

The scale of ISPF (resources and duration) is sufficient to contribute to strengthen R&I capabilities and quality

Research and innovation based solutions provide sufficient input to deliver economic growth, and social and environmental benefits

There are multiple routes (as well as feedback loops) through activities, outputs and outcomes that could support any of these areas of impact. However, we have developed a series of **ToC sub-diagrams that highlight the main and most significant pathways for each of the six high level objectives and impact areas** (noting that other activities, outputs and outcomes may also have relevance). These diagrams and a narrative of the pathways are shown in Appendix B.4.

5 Portfolio analysis

5.1 Introduction

This section provides a high-level overview of the ISPF portfolio, including breakdowns by relevant dimensions. Detailed presentations of the portfolios for each of the 22 ISPF Partner Organisation (PO) are then provided in Appendix C.

The analysis is based on Level B Allocations data (maintained by the DSIT PMO team and provided in January 2025) and PO reporting through RODA (to Q4 2023/24). **It is therefore important to note that the analysis provides a snapshot in time.** Additional programmes will have been added, programme allocations changed, awards made, and funds expended over the subsequent months, which are not yet captured. The analysis will be repeated at the point of the baseline evaluation (based on the latest data), capturing more recent changes.

Details of the approach to undertaking the portfolio analysis are presented in Appendix A.5. However, there are some key points to note before reading the analysis:

- Level B entries in RODA have been used to identify ISPF '**Programmes'**, with the Level B Title used for the 'Programme Name'. Where the same programme appears in both ODA and non-ODA databases, two programmes are recorded (with ODA / non-ODA noted).
- The only exception to the above is where the Level B Title indicates that the RODA entry relates to **Delivery Costs**. These are presented separately in the analysis (as 'delivery costs', not 'programmes'), with an indication of whether costs relate to a specific programme, or to the PO portfolio more generally (based on the information provided in the Level B Title).
- Level C entries in RODA have been used to determine whether there are one or more **'Rounds'** of funding being deployed within the programme *[Information on the relevant round (e.g. a number or year) has been identified from the RODA field: Activity Title]*. Only those rounds where at least one award is recorded in RODA (see below on awards) have been included in the current analysis. Other rounds will be incorporated within future iterations of the portfolio analysis as and when awards are reported.
- Where entries are provided at Level D in RODA, these have been recorded as **'Awards'** in the analysis. The number of awards presented is based on the number of Level D entries. Some Level C entries also include summary details on the number of awards *[RODA field: Total Awards]*, but this has not been used in the analysis, due to inconsistencies in reporting.
- The analysis begins with information on **Allocations** to different partner organisations and programmes, split by ODA and non-ODA funding. This is based on the information presented within Level B Allocations data (provided by DSIT in January 2025), and covers three financial years (2022/23, 2023/24 and 2024/25).
- The analysis then focuses on the **"current" portfolio (March 2024)**, based on whether any expenditure had been reported (against Level B, C or D entries) in RODA as of Q4 2023/24. For each programme, the analysis presents an overview of reported **spend to date** *[sum of figures in field: Actual Net (all quarters up to and including Q4 2023/24)]*, as well as **forecast future spend** *[sum of figures in field: Forecast (all quarters Q1 to Q4 2024/25)]*. Note: (i) spend is reported differently for ODA (near cash) and non-ODA (accruals basis); (ii) programme level expenditure figures include amounts reported against Level B, C and D in RODA (combined), unless otherwise stated; and (iii) the analysis only includes financial figures up to and including the 2024/25 financial year (and not any forecast spend beyond this).

5.2 ISPF allocations

ISPF Funding Allocations by Type	A **total of £347.0m is allocated to ISPF** over 2022/23 to 2024/25. The majority (72% or £250.1m) is allocated to the **163 programmes** currently planned across the different Partner Organisations (POs). The remainder relates to PO delivery costs (£34.6m), DSIT delivery costs (£6.5m) and Institutional Support Awards (£55.8m). See Figure 10. Two thirds (69%) of all allocations relate to ODA funding. See Figure 11.

Figure 10 ISPF – Total Allocations by Year (£m)

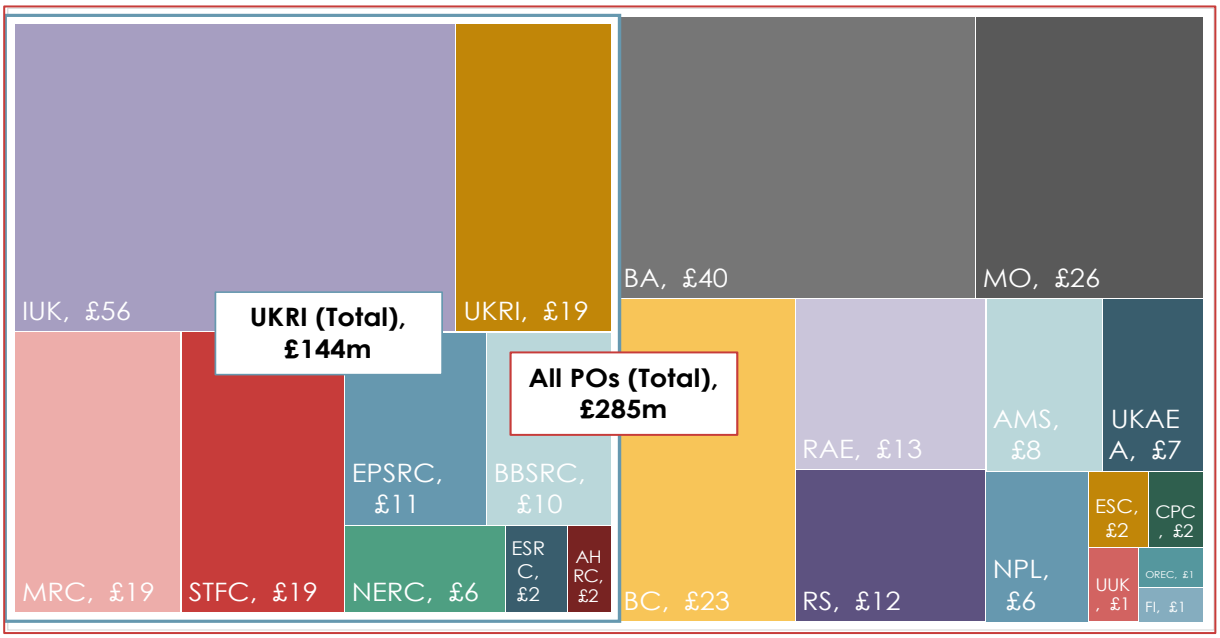
Source: Technopolis based on Level B Allocations Data 2024.

Figure 11 ISPF – Total Allocations(£m, 2022/23 – 2024/25), by ODA and non-ODA

Source: Technopolis based on Level B Allocations Data 2024.

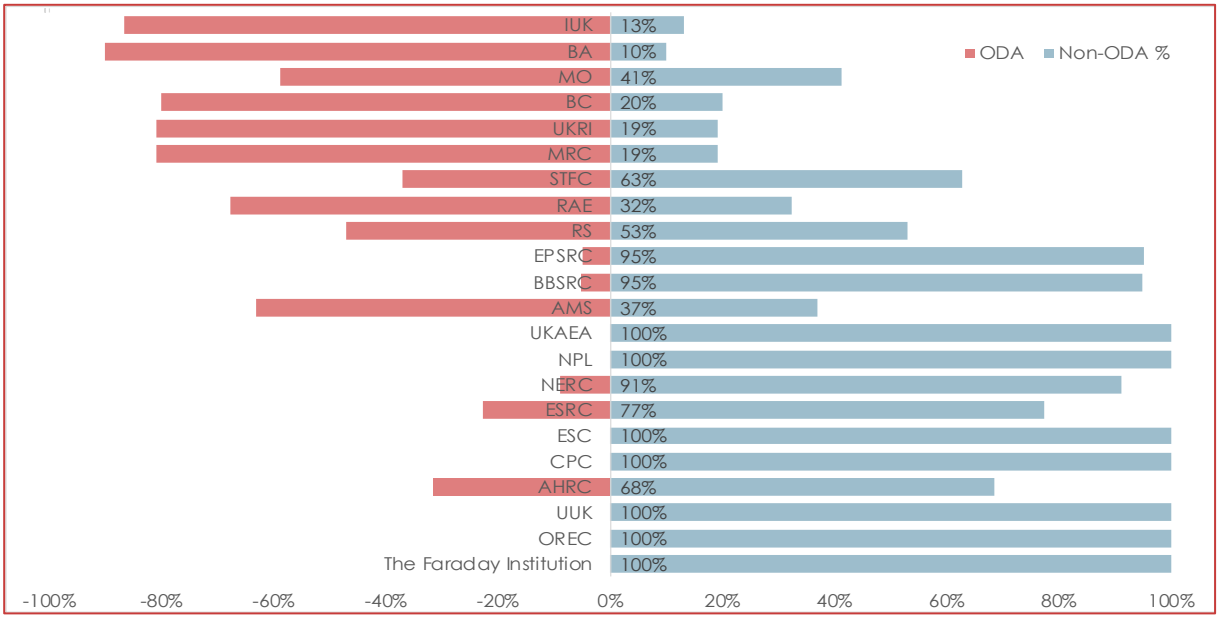
ISPF Funding Allocations by PO	Allocations are spread across **22 Partner Organisations** (POs). See Figure 12. Note that DSIT gives one allocation to UKRI, which is then divided internally between the different Councils, Innovate UK and UKRI itself. The scale of allocations varies between the POs, from £0.9m (the Faraday Institution, with 1 programme) to £55.6m (Innovate UK, with 9 programmes) (allocation figures include both programme and delivery costs) 62% of allocations to POs relate to ODA funding. See Figure 13. All 22 POs have non-ODA allocations, while 15 also have ODA allocations.

Figure 12 ISPF – Total Allocations(£m, 2022/23 – 2024/25), by PO



Source: Technopolis based on Level B Allocations Data 2024. Bottom right boxes are OREC and FI.

Figure 13 ISPF – Proportion of Total Allocations to POs (£m, 2022/23 – 2024/25), by ODA / Non-ODA



Source: Technopolis based on Level B Allocations Data 2024.

5.3 ISPF "Current" Portfolio (March 2024)

Not all of the POs, Programmes or PO Delivery Cost lines that are present in the allocations data appear (yet) in RODA data:

- Allocations data shows 22 POs, with 163 programmes, and 65 PO delivery cost lines (some for specific programmes, some covering more than one programme, some covering the PO's entire portfolio), with total allocations over 3 years of £284.7m[9].
- By comparison, RODA data (as of Q4 2023/24) includes 21 POs, 137 programmes and 50 PO delivery cost lines. The programmes and delivery cost lines currently included relate to £265.5m of allocations (97.4% of the total allocations to POs).

There are several reasons why programmes present in the allocations data may not (currently) be captured through RODA. Missing items may include some or all:

(i) Programmes with allocation for FY 22-23 which were initially funded through the DSIT Tactical Fund mechanism

(ii) Programmes where there has not yet been any expenditure

(iii) Programmes which were originally agreed between a Partner and DSIT, but will not go ahead (flexibility is given to POs to transfer allocation between programmes)

Also note that the Faraday Institution (which appears in allocations data but not currently in RODA) is a newer PO with allocations / spend only commencing in 2024/25 Q1.

We have limited the remainder of the portfolio analysis just to those programmes where spend has already been recorded as of Q4 2023/24. This provides a view of the 'live / underway' programme portfolio at that point in time, which can then be updated in future iterations. Henceforth this group of programmes is referred to as the "current" portfolio (as of March 2024).

We have had to exclude PO delivery costs from the analysis, as this is often not tied to specific programmes.

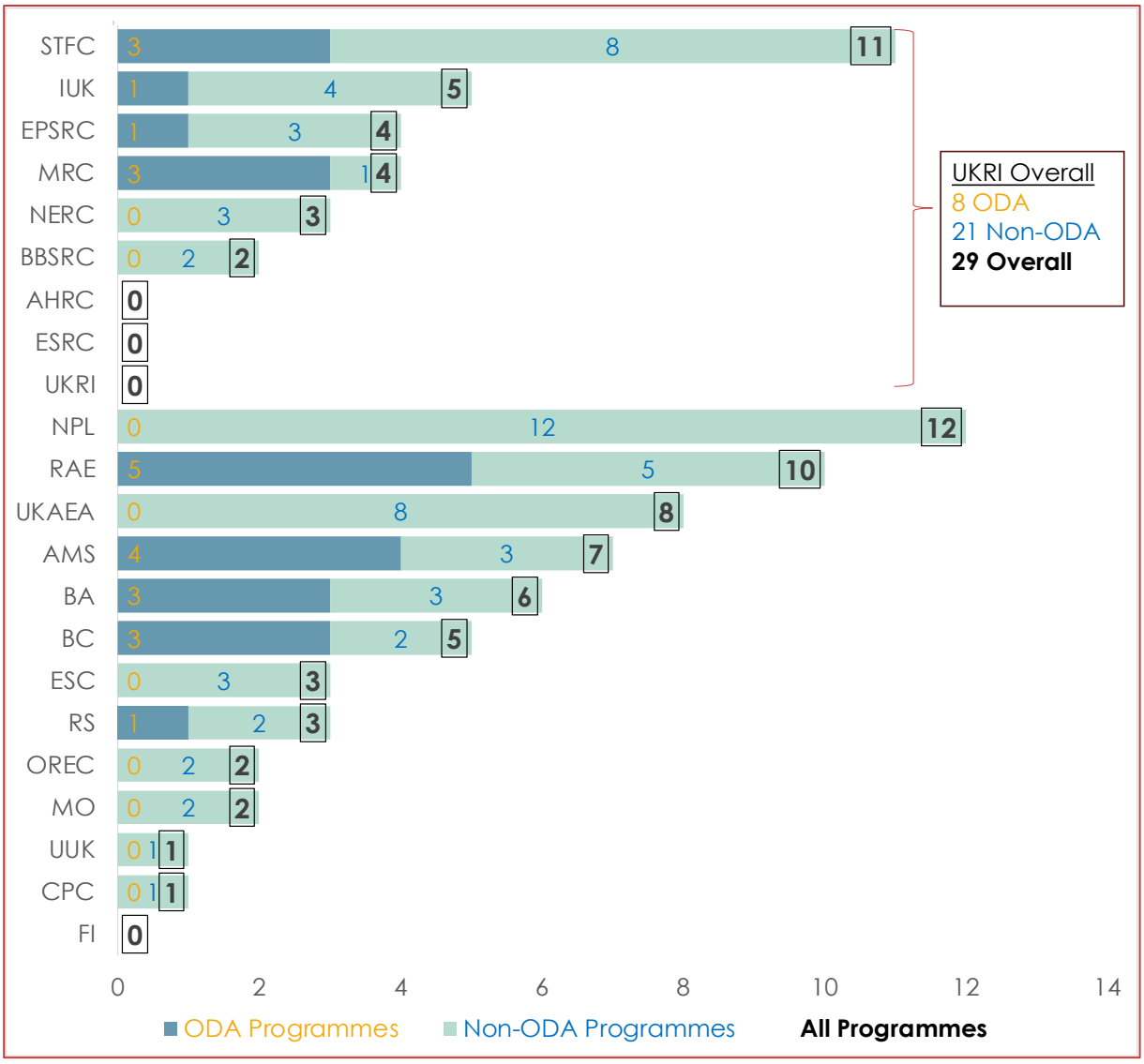
The remaining analysis focuses mainly on information reported in RODA. However, information on ISPF Themes and Partner Countries is taken from the allocations data, where any changes to these fields over time have been recorded.

DSIT delivery costs and Institutional Support Awards are detailed in both the allocations data and RODA data, but as the following sections focus on the ISPF programme portfolio, they are excluded from the analysis.

[9] The allocations data also includes £62.3m in additional allocations for DSIT delivery costs and institutional support awards through the four UK higher education funding bodies. However, these are excluded from the remainder of the analysis presented in this section.

ISPF Programmes	Currently (March 2024), ISPF has a portfolio of **89 programmes** that are live or underway (according to Q4 2023/24 RODA data). These are being delivered by **18 Partner Organisations** (POs), who have between 1 and 12 programmes each (5 per PO on average). There are currently 65 non-ODA programmes (delivered by all 18 POs) and 24 ODA programmes (delivered by 9 of these POs). See Figure 14.

Figure 14 ISPF – Number of current ODA / non-ODA programmes by Partner Organisation

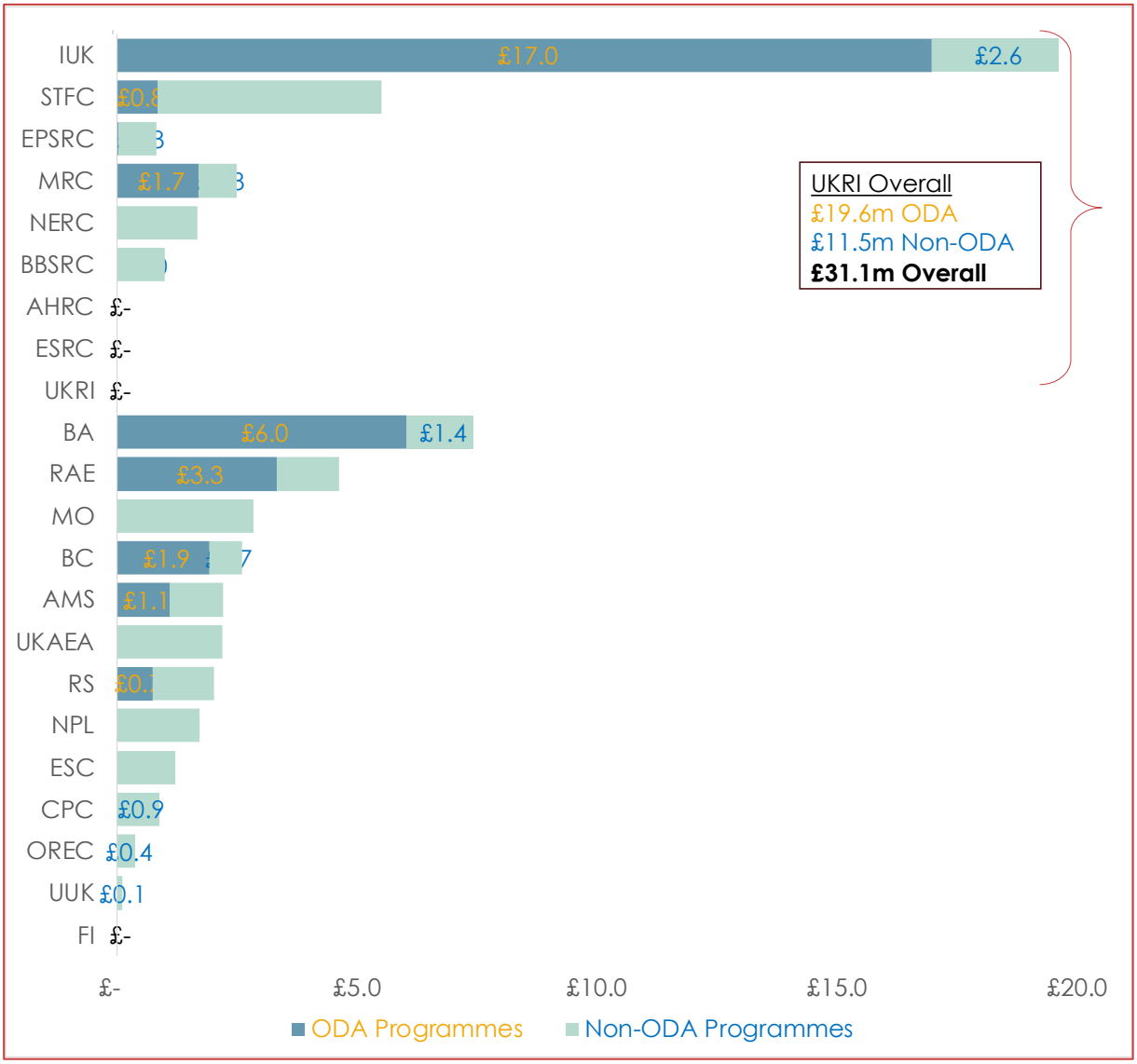


Source: Technopolis based on RODA Data Q4 2023/24.

ISPF Awards	**42 programmes (and 14 POs) have made awards** so far (March 2024). These programmes have made **507 awards** in total (sometimes across more than one round of funding). There are a similar number of ODA (257) and non-ODA (250) awards made.

ISPF Spend	**Past expenditure of £59.2m is already reported*** across current programmes, up to Q4 2023/24 (with a further £96.2m forecast for these same programmes for the remainder of the 3 year period to Q4 2024/25). 55% of past expenditure on current programmes is ODA and 45% non-ODA. £34.1m of past expenditure is through awards (58% of programme total). **Includes Programme Spend and Award Spend (but not PO delivery costs) to Q4 2023/24.*

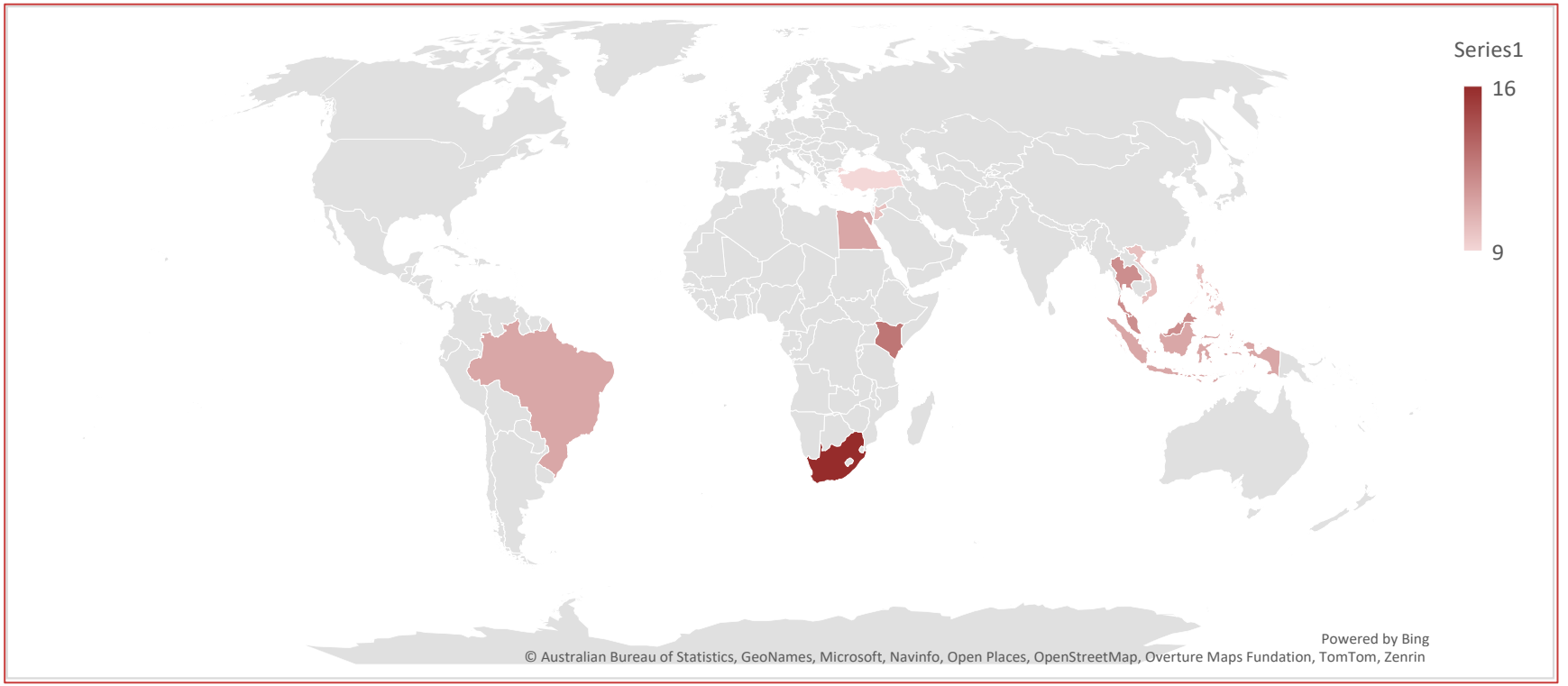
Figure 15 ISPF – Past expenditure (£m) of current ODA / non-ODA programmes by Partner Organisation



Source: Technopolis based on RODA Data Q4 2023/24.

ODA	Within the current portfolio, **24 programmes (27%) are with ODA countries**, with **total spend of £32.7m already reported*** against these programmes. The most common partner countries** are **South Africa** (16 programmes), **Kenya** (13), **Malaysia** (12) & **Thailand** (12). Others include Brazil (11), Egypt (11), Indonesia (11), Jordan (10), Philippines (10), VietNam (10) & Turkey (9)***. See Figure 16. ** Includes Programme Spend and Award Spend (but not PO delivery costs) to Q4 2023/24. ** One or more partner countries are listed against each programme. All have been included. *** Some ODA programmes specify "LDCs" instead of / as well as listing specific countries – these "LDC" entries are not included in the figure below.*

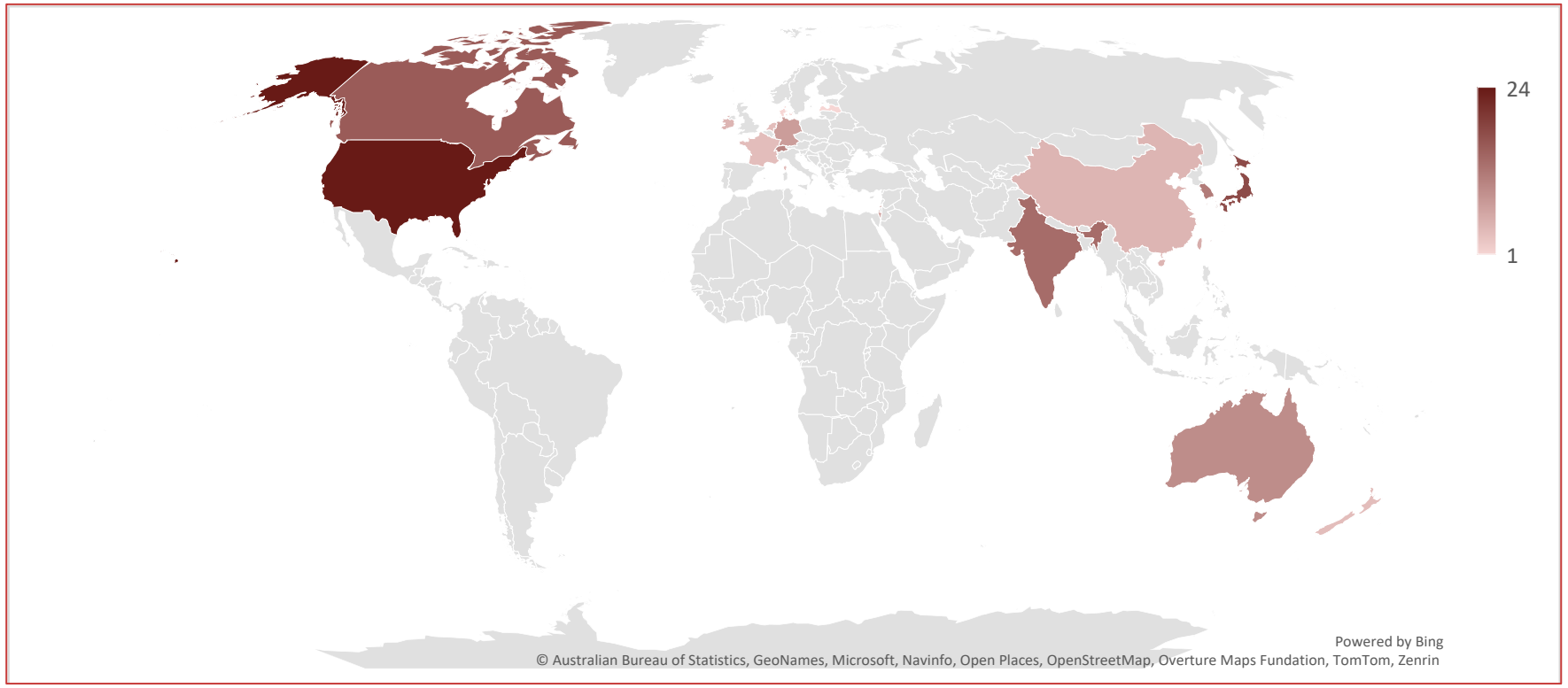
Figure 16 ISPF – Number of current programmes by ODA Partner Country



Source: Technopolis based on RODA and Level B Allocations data (for partner countries), 2024

Non-ODA	Within the current portfolio **65 programmes (73%) are with non-ODA countries**, with **total spend of £26.6m already reported*** against these programmes. The most common partner countries** are **the United States of America** (24 programmes), **Japan** (18), **Canada** (16) and **India** (14). Others include South Korea (12), Switzerland (11), Australia (10), Germany (8), Israel (7), Taiwan (6), China (5), Ireland (5), France (4), Netherlands (4), New Zealand (4), Denmark (1), and Latvia (1). See Figure 17 below. ** Includes Programme Spend and Award Spend (but not PO delivery costs) to Q4 2023/24.* *** One or more partner countries are listed against each programme. All have been included.*

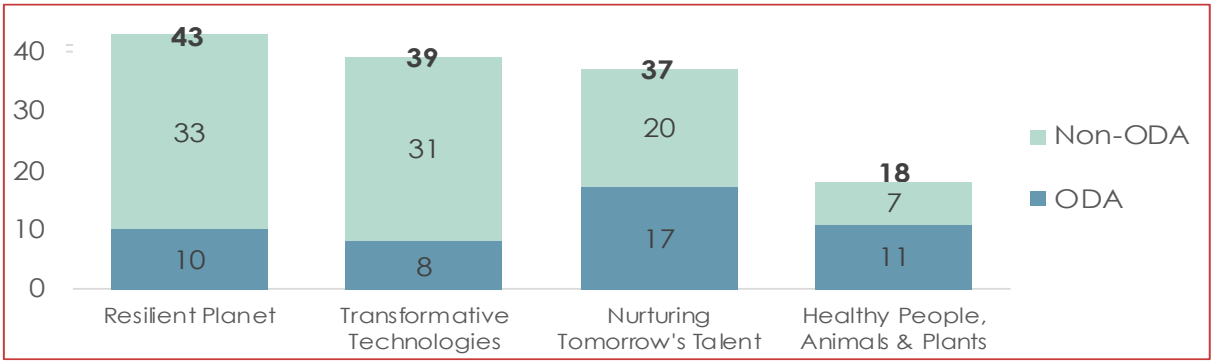
Figure 17 ISPF – Number of current programmes by non-ODA Partner Country



Source: Technopolis based on RODA and Level B Allocations data (for partner countries), 2024

ISPF Themes	The number (and proportion) of current programmes tagged against each of the 4 **ISPF Themes*** is as follows (also shown in Figure 18, with ODA/non-ODA split): • Resilient Planet (43 programmes, 48%) • Transformative Technologies (39 programmes, 44%) • Nurturing Tomorrow's Talent (37 programmes, 42%) • Healthy People, Animals & Plants (18 programmes, 20%) Table 1 shows the breakdown by Theme across different POs. ** Note that figures sum to >100% as programmes can be tagged against multiple themes.*

Figure 18 ISPF – Number of current ODA / non-ODA programmes by ISPF Theme



Source: Technopolis based on RODA and Level B Allocations data (for Themes), 2024

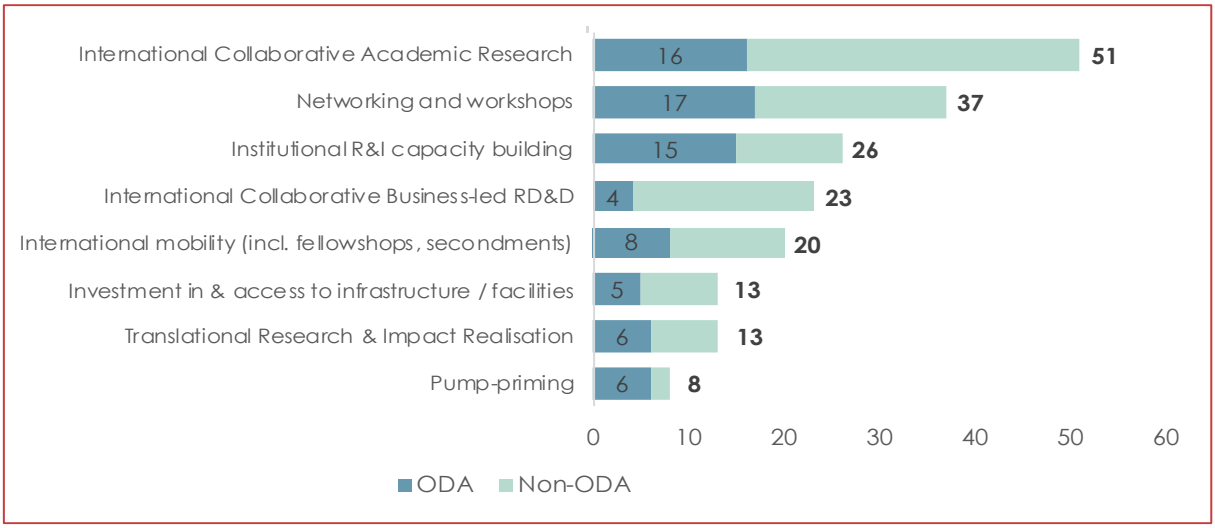
Table 1 ISPF – Number of current programmes by ISPF Theme and Partner Organisation

PO	Resilient Planet	Transformative Technologies	Nurturing Tomorrow s Talent	Healthy People, Animals & Plants	All Programmes
STFC	3	10	6	1	**11**
IUK	2	4	-	-	**5**
MRC	-	-	2	4	**4**
EPSRC	4	1	-	1	**4**
NERC	3	1	1	-	**3**
BBSRC	1	2	-	-	**2**
UKRI	-	-	-	-	**-**
ESRC	-	-	-	-	**-**
AHRC	-	-	-	-	**-**
UKRI Total	**13**	**18**	**9**	**6**	**29**
NPL	6	6	1	-	**12**
RAE	8	7	9	7	**10**
UKAEA	5	4	1	-	**8**
AMS	-	-	4	5	**7**
BA	-	1	6	-	**6**
BC	4	2	2	-	**5**
RS	-	-	3	-	**3**
ESC	3	-	-	-	**3**
MO	2	-	1	-	**2**
OREC	2	-	-	-	**2**
CPC	-	1	-	-	**1**
UUK	-	-	1	-	**1**
FI	-	-	-	-	**-**
All POs	**43**	**39**	**37**	**18**	**89**

Source: Technopolis based on RODA and Level B Allocations data (for Themes), 2024

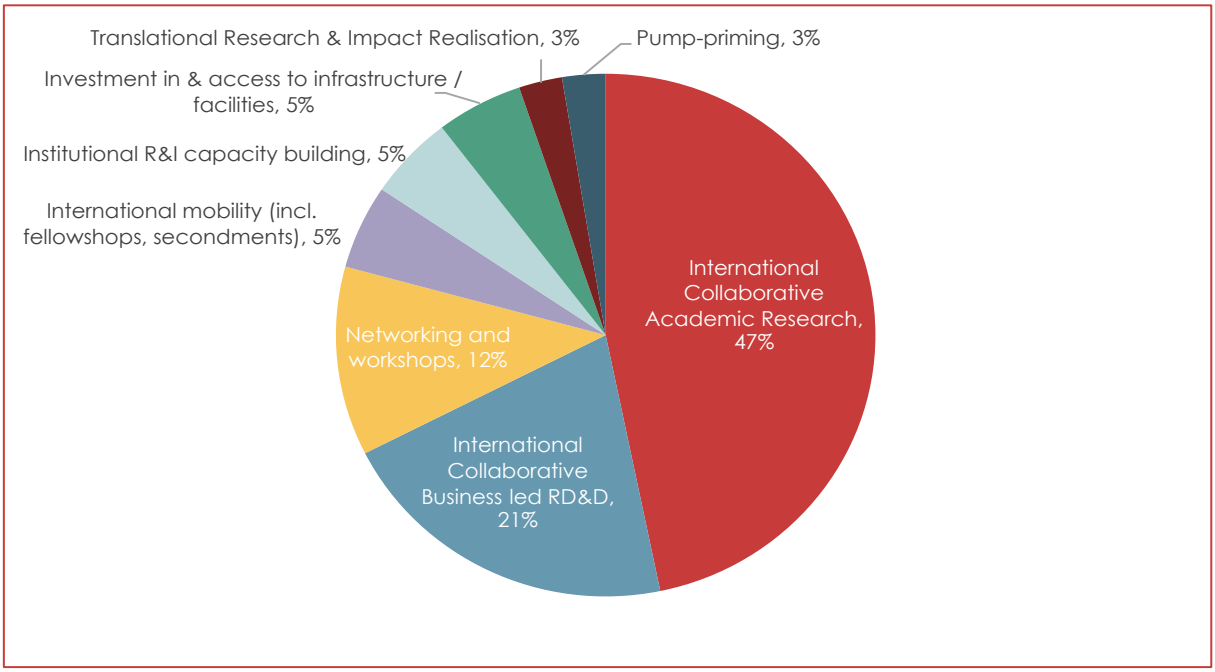
Activity Types	Current ISPF programmes most commonly include the following activity types*: **International Collaborative Academic Research** (66% of all programmes**), **Networking and workshops** (48%) and **Institutional R&I capacity building** (34%). International Collaborative Business-Led Research activities are taking place within 30% of programmes in the current portfolio. See Figure 19. Figure 20 then presents the portfolio by (single) *main* activity type. **Tagged by POs, based on a typology defined as part of ToC development. For definitions of each activity type see 4.3.3.* ***Calculations based on 77 programmes where activity type is known.*

Figure 19 ISPF – Number of current ODA/non-ODA programmes that include each activity type



Source: Technopolis based on RODA and POs input, 2024

Figure 20 ISPF - Percentage of current programmes by main activity type



Source: Technopolis based on RODA and POs input, 2024

5.4 Further reflections from the portfolio analysis

Forming an overview of the ISPF portfolio from RODA and Allocations data has been a considerable undertaking. The set-up of the Fund and portfolio means that reporting is complicated and multi-layered, and there are inconsistencies in interpretation and reporting across different POs. For instance:

- Some programmes have multiple 'level C' entries for the same programme (e.g. to differentiate between sub-parts of the programme, different partner countries, or different years or rounds), while the majority of POs report only one such entry per programme.
- Some information appears to have been entered at an early stage and has not been updated. This is clear in some of the summary descriptions, which are taken from proposals and include 'areas to be determined at a later date', but may also be true of other fields.
- Some POs report delivery costs as a separate entry or entries (sometimes for all activities combined, sometimes for ODA / non-ODA separately, and sometimes for some or all of the individual programmes). Some POs have not reported any separate delivery costs at all.
- The total number of awards made is not always recorded against a programme or round, and where it is, this rarely tallies with the number of awards that are then detailed individually in the database.

The database that the study team have created through this workstream, based on Allocations data, RODA data and PO input, is the first attempt to understand the ISPF portfolio as a whole. However, it is already ~10 months out of date, and the process of revising in future will require further effort, as well as additional input from POs (e.g. on the activity type of new programmes). There are also additional data fields one might usefully include (with input from POs), for instance, the UKRI ISPF database consistently records information for each programme on the match funding types and amounts, private investments, numbers of applications, ISPF sub-themes, and activity types. Similar data might usefully be collected for the remaining POs.

Further consideration should also be given to the different categories of PO and how their portfolio is best reported, such that there is consistency across the Fund. There are at least two broad groups: (i) POs that act as funding intermediaries, mainly running calls and making awards to external individuals and organisations (this includes UKRI councils and IUK, plus the academies, learned societies and UUK); and (ii) POs that directly deliver R&I programmes / projects (the Public Sector Research Establishments, Catapults, and to a certain extent STFC as it is making investments in infrastructure alongside funding individual grants).

6 Effectiveness & Value for Money

6.1 Introduction and overall methodological approach

DSIT is committed to embedding evaluation. It aims to build a comprehensive evidence base to inform policy design, development, and implementation, ensuring that interventions deliver maximum impact, and that public funding is spent as effectively as possible. As such, the ISPF MEL Plan states that a comprehensive externally commissioned evaluation will be needed to provide evidence of the extent to which this Fund is achieving intended outcomes (effectiveness) and is delivering value for money in relation to the public investment.

We recommend using a mixed methods approach, grounded in a Theory of Change (ToC) for the Fund. The ToC has already been presented in Section 4, and this has then underpinned the selection of metrics and data sources. The evaluation would therefore provide an analysis of the progress and achievements made across the entirety of the ToC (from the delivery of early / immediate outputs to **evidence of contributions** towards wider and longer term impacts) as part of the overall **effectiveness assessment**.

Additionally, we also recommend using a holistic approach to **Value for Money (VfM)** that can be applied to arrive to judgements where traditional approaches (e.g. cost benefit analysis or return on investment analysis) are challenging. The approach uses evaluative reasoning and performance criteria to provide a transparent means to make robust VfM judgements from a wide range of qualitative and quantitative evidence. We suggest using a sample of 21 programmes to conduct the VfM assessment (1 in every 8 programmes in the portfolio), with evidence for this being collected via longitudinal case studies.

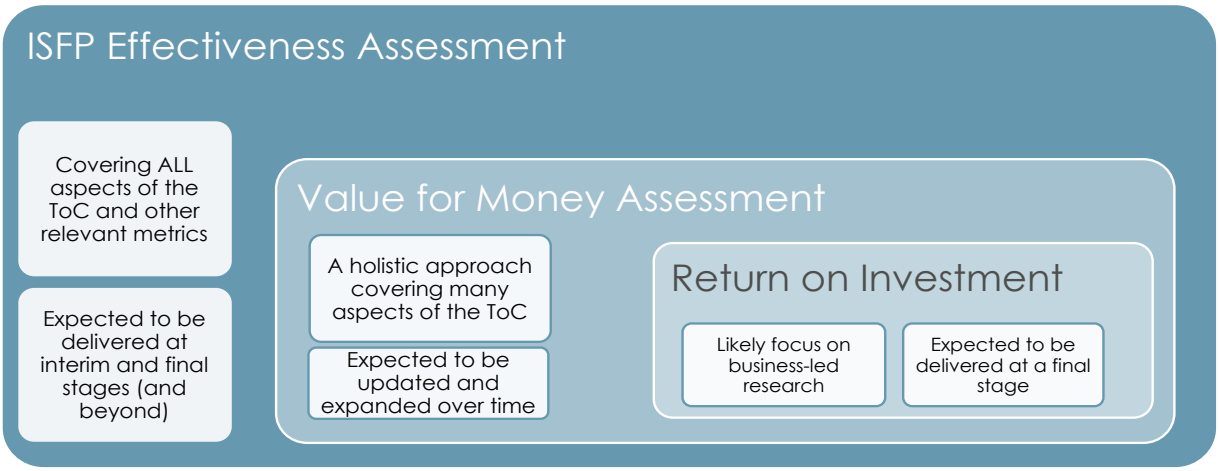
We recommend complementing this holistic approach with an assessment of the **return on investment**, based on monetisable / economic outcomes, with a focus on the parts of the portfolio for which it is possible (and relevant) to make such estimations (i.e. the business led collaborative R&I research). We recommend conducting this assessment using a quasi-experimental design to take into account the counterfactual scenario and explore net effects.

Finally, we also recommend conducting a **Qualitative Comparative Analysis**, using the same dataset of 21 longitudinal case studies mentioned above, to explore the casual pathways that lead to the achievement of (long term) outcomes. This is not only a relevant Theory Based Evaluation (TBE) method in this context, but also one that allows for maximum use and analysis of data collected in the context of the VfM assessment.

Note that the approach set out in this document is intended to be iterative and to evolve as the evaluation progresses, and more evidence becomes available. In particular, the framework should be revised and updated after the Interim Effectiveness evaluation. This could lead to an update of the ToC and performance metrics (e.g., to capture effects not originally foreseen), and / or a change on the sampling strategy for in-depth cases studies.

Note also that the approach will rely on the support of ISPF partner organisations, who have an important role to play in providing accurate, timely and complete data and information, as well as other assistance and inputs throughout the different phases of evaluation.

Figure 21 Overview of approach to ISPF impact assessment



The sub-sections that follow present the following:

- An overview of **performance metrics** proposed for effectiveness assessment (Section 6.2).

  The full list of metrics (with details on sources, baselines and benchmarks) is provided in Appendix D. The performance metrics cover all the elements of the Theory of Change.

- Details of the **main evidence sources** that will be used in implementing these methods and in populating the proposed performance metrics (Section 6.3).

  This includes details of relevant secondary data, as well as proposals for primary data collection activities.

- The **main synthesis methods** proposed for the evaluation (Section 6.4).

  This includes Longitudinal Case Studies a Value for Money Assessment (based on a rubric approach), a Qualitative Comparative Analysis (QCA), and an assessment of Return on Investment. In each case, the relevant sub-section sets out a proposed approach and methodology for employing these techniques in the context of ISPF (while further details of the VfM assessment rubric also set out in in Appendix E).

  A small number of performance metrics will not feed directly into these analysis / synthesis methods, but they will be analysed and reported on within the effectiveness evaluation.

- A recommended **sampling strategy** for the VfM, QCA and RoI approaches (Section 6.5).

Note that further consideration is then given to options around the scale, scope and regularity of future evaluation activities in Section 8.

6.2 Performance metrics (indicators & benchmarks)

6.2.1 *Introduction and background*

DSIT has already developed a suite of 23 Key Performance Indicators (KPIs) to measure the Fund's performance and outcomes[10]. Evidence for most of these will be collected via one of two established monitoring systems: (i) the Annual Commission requests sent to ISPF POs for completion each year; or (ii) the quarterly data submissions by POs on spend and activities via the system RODA system. A small number will be based on further DSIT analysis of information provided via the routes above, or (in one case) on evidence collected through evaluation.

The current list of 23 KPIs is briefly summarised in Table 2 (with further detail on each given in Appendix D.1). The current study was tasked with reviewing these KPIs and their alignment / relevance for addressing the newly finalised ISPF ToC.

Table 2 Summary of existing ISPF KPIs

<table>
<tr><th colspan="2">Annual Commission</th><th colspan="2">Quarterly RODA reporting</th></tr>
<tr><td>A.1 Fellowships
A.2 Intellectual Property
A.3 Spin-out companies
A.4 Partnerships/ Collaborations
A.5 Capacity strengthening
A.6 Additional funding
A.7 Jobs supported
A.8 Applicants & award holders</td><td>B.1 Gender/sex Demographics
B.2 Training and Development
B.3 Tangible outputs
B.4 Policy
B.5 MoUs
B.6 Events & workshops
B.7 Publications</td><td>A.9 Lead organisations
A.11 SDGs
B.10 Themes
B.13 LMICs</td></tr>
<tr><td colspan="2"></td><td>Further DSIT analysis</td></tr>
<tr><td colspan="2"></td><td>B.8 LMIC Authors
B.9 FWCI
A.10 EIAs</td></tr>
<tr><td colspan="2"></td><td>Evaluation</td></tr>
<tr><td colspan="2"></td><td>B.11 Equitable Partnerships</td></tr>
</table>

The study was also tasked with recommending **additional indicators** that should be included to better address the ToC. The evidence for these would need to be collected by future evaluators (rather than via existing DSIT / PO monitoring activities), and so the approach and source for doing so also needed to be established by the current study.

The ISPF MEL Plan defined a series of longer term outcomes for each of ISPF's main objectives, and identified relevant indicators (from the KPIs above) that related to each outcome. It then began to establish a series of specific **interim targets** for these indicators and outcomes, with the intention that these would provide something for the Fund to work towards in the short term and help demonstrate progress towards long term objectives.

The objectives and intended outcomes of the Fund have evolved since this plan was written (as the Fund has evolved and as ambitions have been further defined through the ToC development process), as have some of the KPIs (which were still being agreed and finalised). As such, some elements of the original thinking on targets are no longer well aligned and

[10] A further 8 ideas for KPIs were originally proposed in the ISPF Monitoring, Evaluation and Learning Plan, but required further thought and development. These KPIs are listed in Appendix D.2, along with a note of when and where it has been possible to take these forward through the recommended indicators proposed.

relevant. The study team have also advised against the use of specific targets where these do not have a strong foundation in the original stated intentions of the Fund and do not have a good rationale and basis for being set at a certain level. Instead, to address the desire to compare progress and achievements against a standard or expectation, the study team have recommended **considering where there are relevant benchmarks** for the indicators now proposed (existing KPIs and additional indicators). This will allow for a less binary assessment of progress and achievement, as well as some consideration of contextual factors (e.g. differences between ISPF and the relevant benchmark) when making the analysis.

6.2.2 *Proposed metrics*

The full results of the performance metric assessment and development process described above are presented in **Appendix D.3 (ISPF Performance Metrics).** However, details for one element of the ToC have been extracted from this appendix into Table 3 below as an example, and this is used as a reference for the introductory text that then follows.

Table 3 Example performance measurement assessment

Column	Name	Example
A	Type	Outcome
B	Ref No.	OC8
C	ToC Element	Increased or sustained quality / competitiveness R&I in ISPF themes (UK & ODA beneficiaries)
D	Existing KPI?	Yes
E	Existing KPI Detail	B9 Field-weighted citation impact (FWCI) (based on B7 List of publications)
F	Recommended Indicators	As per existing KPI, plus: Citation impact - as measured by Average of Relative Citations (ARC) and HCP (Highly cited papers) - of ISPF publications (total, broken down by ISPF themes, gender and field/sector). Also bibliometric analysis of international co-publications, multi-and inter-disciplinary papers, and research novelty (based on unusual combinations of cited references).
G	Sources	> DSIT analysis (KPI B9), based on Annual Commission (KPI B7) > Bibliometric data / analysis
H	Included in VfM?	Yes
I	Relevant VfM sub-dimension	3.2.5 Attainment of outcomes: Strengthening SRTI quality
J	Baseline	Citation impact (as described in the indicator) for ISPF researchers (before ISPF).
K	Comments	Baseline assessment can be made at baseline evaluation stage, or retrospectively alongside the first interim impact assessment.
L	Possible Benchmark	Comparison of ISPF quality (as measured by citation impact) with several counterfactuals: (1) the same researchers before ISPF funding (2) the same researchers with non-ISPF funding (during ISPF period) (3) UK researchers collaborating with the same countries. [This benchmarking exercise is already proposed as part of VfM approach]

Assessment / alignment of existing KPIs

- **Columns A-C** present all elements contained within the **ISPF ToC** (i.e. each input, activity, output and outcome that is presented in the ToC diagram). The example shown above concerns one of the outcomes of the Fund (increased R&I quality / competitiveness).
- **Columns D-E** identify any **existing KPIs** that are relevant to that part of the ToC, showing what is already being captured through RODA or the Annual Commission. In the example above, KPI B7 will collect a list of DoIs for publications emerging from ISPF, while B9 concerns additional analysis that will be undertaken by DSIT to determine the field-weighted citation impact in relation to these publications.

  Note that not all existing KPIs map directly to a specific part of the ToC. The small number that do not align well are noted in Appendix D.4. These would still provide useful data for the evaluation, but are mainly contextual (or cross-cutting in the case of KPI B1).

Recommendations for additional indicators

- **Column F** presents **additional indicators** for parts of the ToC that are not already covered by KPIs. In most of the cases where there is an existing KPI in place, we also present an additional or extended indicator, which can more fully capture the relevant element of the ToC. This is the case for the example above, where it is proposed that two additional methods of assessing impact (ARC and HCP) are used, and that analysis is also undertaken for different sub-groups (by ISPF theme, by gender, etc.).
- **Column G** identifies the **relevant source(s)** of evidence for the indicator(s). In the example given, this includes the Annual Commission (which will collect DoIs), plus additional bibliometric data that will be obtained based on the identified ISPF publications.

  Table 4 lists the different sources that are mentioned across all of the proposed metrics in the appendix and provides a summary of the number of indicators being addressed in each case. Note that the sources / methods are considered further in Sections 6.3 (evidence sources) and 6.5 (sampling strategy).

Table 4 Summary of sources and indicators for performance metrics

Source	Input Indicators	Activity Indicators	Output Indicators	Outcome Indicators	Indicators Total*
PO Consultation (info request)		8			**8**
Programme lead consultation (written / interview)			2		**2**
Survey of ISPF project participants (UK and international)			9	8	**17**
Follow up interviews with ISPF project participants			1	1	**2**
RODA (incl. Allocations data)	4	8		1	**13**
Annual Commission data (including DSIT analysis of this data for 2x KPIs)		2	14	3	**17**
Bibliometric data / analysis & Overton			2	2	**4**
VfM Case Studies (evidence from VfM assessment) [which draws on and triangulates multiple evidence sources]	1		2	10	**12**
Any source*	**4**	**8**	**21**	**22**	**55**

*Note that some indicators combine multiple sources, so columns cannot be summed to arrive at the total number of indicators.

- **Columns H-I** note where an indicator is also being used in the **VfM rubric** (introduced in Section 6.4.2). Where this is the case, the determination of indicators and relevant sources has sought to align with and make use of evidence collection that is already planned as part of VfM assessment (to reduce duplication of effort). In the example above, there is a VfM sub-dimension (3.2.5 Attainment of outcomes: Strengthening SRTI quality) that is relevant, and so the indicator proposed aligns with plans there.

Recommendations for baselining

- **Columns J-K** assess the relevance of establishing a **baseline** for each indicator (existing KPIs and additional indicators). For many of the indicators, the baseline position at the start of the Fund is "zero" and any outputs or outcomes delivered will be additional, therefore no initial measurement is required. Elsewhere, an approach is suggested for capturing the relevant baseline, along with any relevant comments on how / when this should take place. In the example above, the baseline would be the performance of ISPF researchers in the period immediately prior to ISPF, and could be assessed at the initial baseline evaluation stage, or retrospectively at the first interim effectiveness evaluation.

Assessment of possible benchmarks

- **Column L** provides an initial assessment of where and how results (evidence captured against indicators) might be compared with a relevant **benchmark**. A RAG rating is used to indicate availability of a suitable benchmark (with red indicating no suitable benchmark identified, amber indicating a possible benchmark requiring further exploration, and green indicating a feasible and suitable benchmark). In the example given above, three comparators are proposed (and rated green). The recommended benchmarks are already an exercise recommended to be undertaken as part of the VfM approach.

  Note that in some cases where there is currently no suitable benchmark (rated red), the note in the column suggests that initial evidence / results from the indicator could however be used as the basis for an internal discussion as to whether there is a desire to establish more concrete ambitions for the future (which can then be monitored against). This is the case, for instance, in relation to indicators on the balance of the portfolio across different activity types.

6.3 Main evidence sources

As indicated in the previous section on metrics, the effectiveness evaluation (including VfM assessment – which is explained further in Section 6.4.2) will draw on a number of different primary and secondary sources of evidence. Further details of each of the sources is provided below, with reference made to the indicators presented in the metrics table (Appendix D.3), as well as to the sub-dimensions presented in the VfM rubric (Appendix E).

6.3.1 Primary data collection / consultation

Partner Organisation (organisation-level) Consultation

Most basic information on the ISPF portfolio can be obtained by the evaluators from Allocations data and RODA (see secondary data below). However, this does not currently include a tagging of programmes by 'activity type', which is required for 8 of the activity indicators presented in the metrics table. For the current report (portfolio analysis), POs have tagged all programmes that were entered in RODA as of Q4 2023/24, but this process would need to be repeated in future to include any subsequent additions to the portfolio. This would involve sharing a template with each PO, with responses then aggregated in a single repository.

Programme Lead Interviews and Information Request

There are 22 sub-dimensions in the VfM rubric that require consultation with ISPF Programme Leads (i.e. the programme manager or equivalent for an ISPF programme, within the UK PO and in the equivalent overseas partners). The relevant sub-dimensions mainly relate to the achievement of outputs and outcomes (under the Effectiveness criteria).

Data sharing agreements are being finalised with each PO to allow the provision of relevant contacts to the evaluator/DSIT. Interviews would then be conducted online and individually. We recommend interviews are undertaken with at least the UK lead and one overseas lead for each of the programmes included within the VfM sample (see Section 6.5 on sampling). Depending on the programme in question, additional interviews with other organisations that are supporting implementation (perhaps across multiple countries) may also be relevant.

There are also two output indicators (relating to resources leveraged for ISPF programmes and examples of joint areas of interest / priority identified between funders through ISPF) which should also be addressed to programme leads. For those programmes included within the VfM exercise, this information can be sought as part of the same consultation exercise. For other programmes (outside the VfM sample), a written request / short survey of the relevant leads is recommended.

Online survey of ISPF Project participants (UK and International)

An online questionnaire survey directed at ISPF Project participants (i.e. award holders and direct beneficiaries of ISPF funding), including both UK and international participants. These individuals will be identified by the Partner Organisations and their details either shared with the evaluator (where possible), or approached directly by the Partner Organisation (where not). Data sharing agreements are being finalised with each PO to allow the provision of contacts. The survey should be directed to all participants where it is possible access relevant contacts.

The survey will address 17 of the output and outcome indicators presented in the metrics table and 19 of the sub-dimensions presented in the VfM rubric (across all four criteria, but mainly focused on those relating to Effectiveness).

Follow-up interviews with ISPF Project participants (UK and International)

For two of the indicators presented in the metrics table (one output indicator, one outcome indicator), initial evidence will be collected through the participant survey (above), but we have also suggested that a small selection of examples could then be explored further through a follow-up interview. This relates to: (i) whether and how new R&I ideas (e.g. new research questions to be addressed) have been identified with ISPF funding and then taken forward (through further ISPF or alternative funding); and (ii) the extent to which ISPF participation has increased various aspects of a participant's research capabilities (e.g. leadership skills). These interviews could be expanded to also explore other areas of particular interest in more depth, building on the initial survey responses and results.

6.3.2 Secondary data

ISPF Allocations and RODA data

ISPF Level B Allocations data (maintained by the DSIT PMO team) records the original allocations of ISPF ODA and non-ODA funding (separately) across the different ISPF Partner Organisations and their Programmes (or delivery costs) and across financial years. There is the flexibility for partner organisations to re-balance their allocations within their ODA or non-ODA portfolios over time (e.g. increasing or reducing the scale of particular programmes), and this is then reflected in future year allocations within this database (once the change has been notified to DSIT through the ISPF Change Management Process). It also includes information on ISPF Themes and Partner countries for each programme (both of which can then also be updated in this database as part of the ISPF Change Management Process).

ISPF POs are also required to make quarterly data submissions via the financial reporting system (RODA). The focus is information on past and forecast future expenditure, however other information is also collected (e.g. a programme description, the number and value of awards made, or alignment with Sustainable Development Goals). ISPF reporting through RODA begins once programmes are launched (and so is already underway, but will expand over time).

For the portfolio analysis presented in this framework, these two sources of data have been combined. As an evidence source, they are also collectively referred to simply as "RODA" within the metrics table (where they support 15 indicators) and VfM rubric (supporting two sub-dimensions). For the evaluation, the latest available data will be obtained from DSIT and analysed to provide evidence against these indicators and sub-dimensions.

ISPF Annual Commission data

Annual Commission requests are sent by DSIT to each ISPF PO for completion each year. The requests ask for a variety of data and information on the activities, outputs and outcomes that relate their portfolio of ISPF programmes and projects (see Appendix D.1 for KPIs covered).

For the evaluation, the latest available Annual Commission data will be obtained from DSIT and analysed by the evaluation team to provide evidence against the relevant 15 indicators in the metrics table and 12 relevant sub-dimensions in the VfM rubric.

The first results on ISPF through the Annual Commission have become available in early 2025 (based on data for the Jan-Dec 2023 period, collected from POs at the end of 2024). Initial evidence will therefore be available for the baseline evaluation in 2025, although data is likely to be limited at this stage, as there was minimal ISPF programme activity during 2023.

Programme documentation

The 5 sub-dimensions under the Economy criteria of the VfM rubric all require complementing evidence from consultation activities (detailed above) with information contained within programme descriptions and call documentation. RODA data (above) includes some summary information on each programme (and some specific rounds / calls), but this can be expanded upon based on a review of publicly available information on relevant PO / programme websites, plus requests for additional information from POs / programme leads themselves (as part of the planned primary data collection activities).

Bibliometric data and Overton

There are four indicators and one VfM sub-dimension that will require bibliometric analysis, including citation analysis, on academic papers and on policy-related literature. This requires first identifying ISPF publications (from information collected via the Annual Commission), and then estimating the citations of these within other papers and in policy-related literature.

There are several data sources available for bibliometric analysis and citation analysis on academic papers, including Web of Science and Scopus (both proprietary data), and OpenAlex (an open source database). For citation analysis / uptake in policy-related literature the only available data source at the moment is Overton (also a proprietary data source).

Bibliometric analysis will also support benchmarking exercises to compare the quality of ISPF publications (as measured by citation impact) with several counterfactuals:

- The same UK researchers before ISPF funding
- The same UK researchers with non-ISPF funding (during ISPF period)
- UK researchers collaborating with the same countries. [This benchmarking exercise is already proposed as part of VfM approach].

The analysis could be expanded to focus on researchers from other countries, and this has been included as optional exercise as described in Section 8.

ResearchFish

ResearchFish is a monitoring platform that tracks outputs and outcomes emerging from research projects. It is used by UKRI and other organisations. This data source has been suggested as a means to benchmark outputs and outcomes emerging from ISPF, to assess to extent to which they are in line, below or above expectation. To improve this comparison, the benchmarking exercise would take into account the scale of the public investment (i.e. per £m invested). It is also possible to further improve comparability by selecting only those grants that included international collaborators (and even just ISPF partner countries) for the benchmark exercise.

Even though ResearchFish is not used across all POs, it is the only database available to be able to conduct this (quantitative) benchmarking exercise.

Longitudinal / VfM Case Studies

There are 12 output and outcome indicators in the metrics table that are based (at least partly) on the evidence and results being obtained through the VfM assessment process. The source is recorded as 'VfM Case Studies' to signify that the relevant metric will be captured for a sample of programmes that are included within the VfM assessment, and not all programmes. Each element of the VfM assessment itself will draw on and triangulate multiple sources of evidence, and these are already incorporated within the different evidence sources above.

Note that the longitudinal cases studies will offer a synthesis method in their own right (in addition to providing the data needed for the VfM and QCA). They will draw on multiple evidence and data sources as listed above. Additional interviews might be considered (e.g. with government officials or SIN representatives, as appropriate) to further enhance the narrative evidence presented within individual cases. The presentation of the longitudinal cases studies is further discussed in the section below.

6.4 Synthesis Methods

This section sets out the **main synthesis methods** proposed for the effectiveness evaluation, which include:

- Contribution Analysis
- A Value for Money Assessment (based on a rubric approach)
- A Qualitative Comparative Analysis (QCA)
- An assessment of Return on Investment.

In each case, the relevant sub-section sets out a proposed approach and method for employing these techniques in the context of ISPF. For completeness, we start by explaining that evaluation starts with an overall analysis and presentation of the evidence collected for all dimensions of the ToC.

6.4.1 Contribution analysis and overall assessment of effectiveness

We suggest following an adapted **Contribution Analysis (CA)** approach to the overall assessment of effectiveness, building upon the ToC of the Fund. This will entail testing and questioning the ToC by examining the evidence collected through multiple data sources. This approach is already embedded in the performance indicators in so far as these metrics have been set up to capture the contribution made by the Fund (with suggested benchmarks and comparisons, when possible, to further aid this analysis).

We suggest presenting this analysis against the main output and outcome categories of the ToC: Partnerships, Research, Innovation, Knowledge & Skills, and Influence & Reputation; and reporting on the qualitative and quantitative evidence emerging from different indicators and data collection tools. Other options / categories can be considered for structuring the presentation of results, but the important point is to make sure that the evaluation first presents an analysis across all the (ToC) evidence, before presenting the results from the synthesis methods (VfM, QCA, RoI) which will be more summative.

In addition to this high-level CA assessment, we also suggest developing a more in-depth Contribution Analysis using the Longitudinal / VfM Case Studies. In addition to providing evidence and results for the VfM assessment, these case studies will provide evidence to inform the overall assessment of effectiveness. As well as covering all (relevant) elements of the ToC, they will focus on collecting holistic evidence on:

- The mechanisms that lead to the achievement of outputs and outcomes, and qualitative assessment of the contribution of the Fund
- The contextual factors that have enabled or hindered the achievement of outputs and outcomes

- Unexpected outputs and outcomes not foreseen in the initial ToC
- Lessons learned from the design and implementation

The full case studies could be presented as annexes, with specific evidence then mobilised within the corresponding sections of the effectiveness analysis (e.g. in the form of quotes, vignettes, and evidence boxes as needed).

Consideration of alternative approaches

It is not recommend to conduct an all-out Realist Evaluation (RE) approach (and preparing and testing a series of specific Context-Mechanisms-Outcomes configurations, CMOs) given the complexity of ISPF, the variety of contexts in which it is implemented, and the wide set of expected outputs and outcomes covered in ToC. A RE approach would require pre-set, pre-conceived CMOs which could be too restrictive for the ISPF context, and would require a disproportionate level of resources to implement. They will also need to be developed for each programme, making it challenging to 'aggregate' results at the Fund level.

We have also discarded using Process Tracing, which focuses on applying specific types of tests to assess the strength of evidence (e.g., straw in the wind, smoking gun), and have instead advised a more straight-forward framework to assess the strength of evidence as part of the VfM assessment. This recommendation, again, stems from the wide set of expected outputs and outcomes as covered in ToC and the need to keep the principle of proportionality.

Therefore, Contribution Analysis has been selected as the overarching theory-based approach for the effectiveness evaluation. Qualitative Comparative Analysis, as explained below, provides a tool to explore certain outcomes in more depth, within this structure.

6.4.2 *Value for Money*

6.4.2.1 Overall approach

Traditional VfM assessment methods (e.g. Cost-Benefit Analysis) tend to have a narrow definition of value and struggle when being applied to Science, Research, Technology and Innovation (SRTI) initiatives. For ISPF, challenges include: objectives, contexts and benefits that are highly diverse across the portfolio; benefits that will only be realised over long time periods; benefits (such as new knowledge, attitude change and capacity building) that can be intangible and difficult to quantify or monetise; and equity being an important consideration.

DSIT has been working on an approach to assessing VfM since 2019, initially in relation to the Newton Fund, and then for the GCRF evaluation. A 'rubric-based' assessment is used, adapted from a method developed by Oxford Policy Management (the main features of which are summarised below). This provides a more holistic approach to VfM, exploring dimensions tailored to capturing key aspects of value delivered by a Fund, and allowing for different types of investment to go through the same process in a transparent and fair manner. Importantly, it provides a robust framework that assesses value beyond just monetary considerations.

Overview of the rubric-based VfM Approach

The rubric-based VfM approach was originally developed for an international development context by Oxford Policy Management[11] and adapted for GCRF and Newton evaluations.

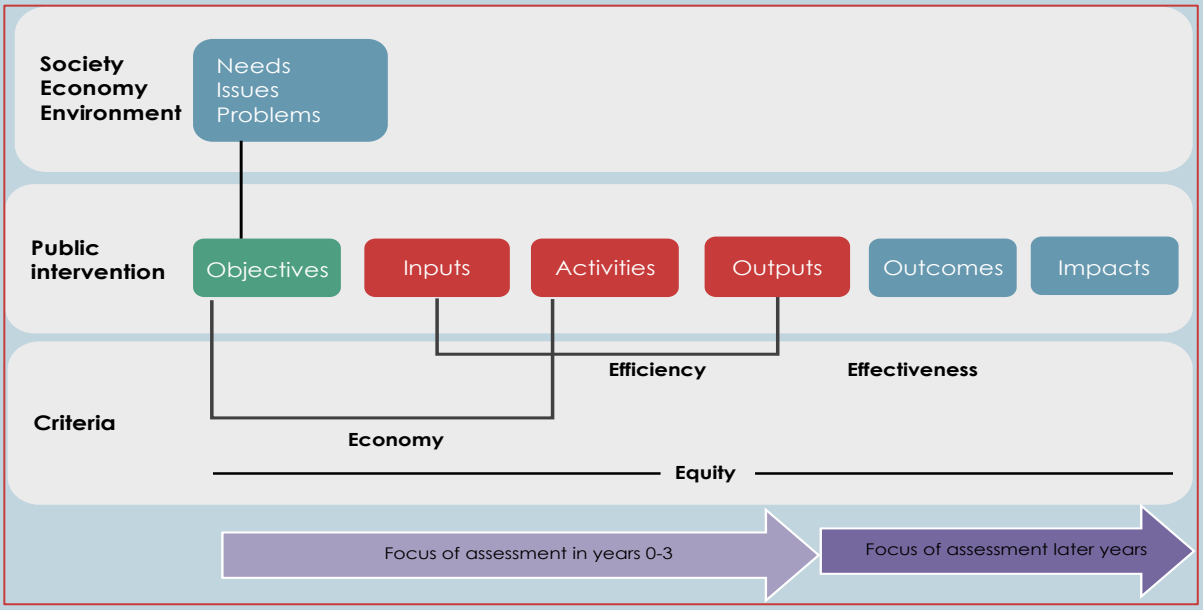
It is based around defining a series of value for money **performance dimensions and sub-dimensions** which seek to encapsulate the main 'value' propositions of an initiative.

These dimensions are identified and organised under the "**4 E's**" of Economy, Efficiency, Effectiveness and Equity, which are recommended as Value Criteria by the Foreign, Commonwealth & Development Office (FCDO) and National Audit Office (NAO). These have been defined (in an international development context)[12] as follows:

- Economy – Are we buying appropriate quality at the right price?
- Efficiency – How well are we converting activities into outputs?
- Effectiveness – How well are the outputs produced having the intended effect?
- Equity – How fairly are the benefits distributed?

As shown in Figure 22 below, these 4 E's (and the headline questions they seek to address) can be mapped against the structure of a **Theory of Change**. Evidence for different dimensions will therefore emerge overtime. For instance, evidence on economy dimensions would be available at the start of an intervention / evaluation, while evidence on efficiency will start to emerge after the first years, and on effectiveness a little later. Evidence on equity will also evolve and increase over time (with analysis initially focusing on equity of design and implementation, then resource distribution, and then involvement in access to benefits). This allows for an early analysis of VfM, as well as further, richer analysis as the years pass.

Figure 22 The 4E's mapped to the ToC structure



Technopolis

[11] https://www.julianking.co.nz/wp-content/uploads/2023/12/opm-vfm-approach-2.pdf

[12] Definition of four E's taken from 'DFID's Approach to Value for Money – Guidance for external partners' (June 2020)

For each sub-dimension, **performance standards** are then defined (i.e. explicit definitions of what the evidence would look like at different levels of performance - poor, adequate, good and excellent). A number is attached to each level (e.g. poor = 1, adequate = 2, and so on), such that a numeric rating can be given (with an accompanying narrative provided on the rationale for the rating, as well as a comment on the strength of evidence).

Figure 23 Example Rubric and Assessment Template

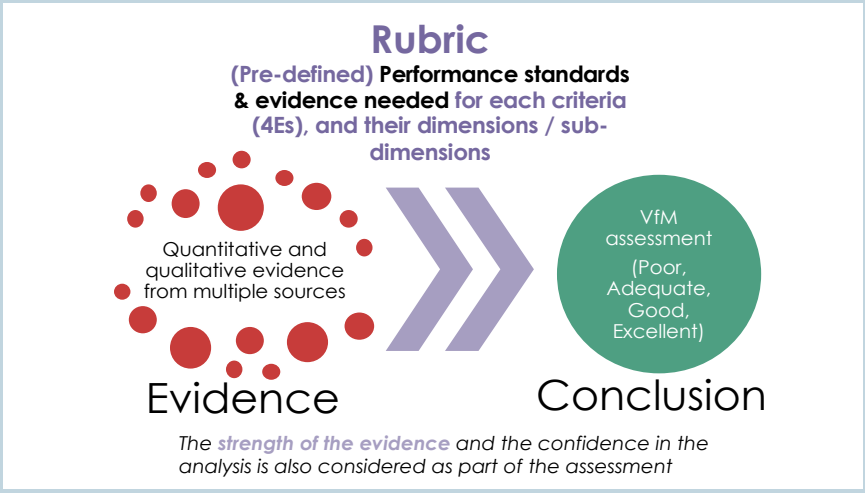
Rubric	1 Poor	2 Adequate	3 Good	4 Excellent
Economy Dimension 1: *[A value proposition of the Fund]*	*[Definition of what evidence would look like for a 'poor' rating on this Dimension]*	*[Definition of what evidence would look like for an 'adequate' rating on this Dimension]*	*[Definition of what evidence would look like for a 'good' rating on this Dimension]*	*[Definition of what evidence would look like for an 'excellent' rating]*
Economy Dimension 2: *[A value proposition of the Fund]*	Etc.			
Etc.				

Assessment	Rating & Score	Rationale for Rating	Strength of evidence (rating and comment)
Dimension 1	1 - Poor	*[Summary of evidence in relation to performance standards]*	*[High, Medium, Low]*
Dimension 2	3 - Good	Etc.	
Etc.			

The **assessment** itself is undertaken at the sub-Fund level (i.e. applying each part of the rubric to an individual programme or project, and then repeating across a sample). The scores on a particular dimension can then be aggregated across that sample. Therefore, whilst assessment and scoring take place at a sub-Fund level, the **resulting analysis is at the Fund level**.

The VfM assessment process itself is based on reasoned evaluative judgements, drawing on an array of qualitative and quantitative evidence. It is therefore important that the criteria and standards are clear, specific and transparent, and that evidence will be collected and available to support this assessment. The development of the ISPF Rubric therefore tied closely with the work of the current study on performance measurement (looking at centrally collected KPIs, plus possible additional metrics to be addressed through evaluation fieldwork). It is important to establish these plans for data collection before launching into the evaluation, such that the necessary evidence will be in place for VfM assessment.

Figure 24 Summary of the Rubric-based VfM approach



DSIT were keen to achieve continuity and build upon the past (and ongoing) Newton/GCRF work in the approach used for assessing VfM in relation to ISPF. However, the detailed dimensions and performance measures required adaption and development for this new context (e.g. given differing objectives of the Funds and the blended ODA / non-ODA scope of ISPF). Workstream 4 therefore focused on the development of a bespoke VfM rubric for ISPF, including value criteria, performance standards, and a sampling approach to the assessment.

The rubric, as prepared in the context of the ISPF evaluation framework, will provide a basis for future stages of monitoring, evaluation and learning. It is primarily intended for internal audiences (for the evaluation team, the Fund team and Partner Organisations who will be central to data collection). However, the results and analysis developed in later phases, based on this rubric, will then be relevant to and of interest to a wider range of audiences. Robust VfM assessment is partly about accountability to funders (demonstrating that ISPF is maximising impact given resources) and is essential when making the case for additional funding. It can also help to drive improvements to future programme design and decision making through evidence-led adaptive management and dynamic portfolio management.

6.4.2.2 Key features of the ISPF VfM Rubric

Appendix E provides the full VfM Rubric for ISPF. There are important considerations that have informed the development of this rubric, as set out below.

A hybrid approach with programmes as the starting unit of analysis is more appropriate for ISPF. The VfM approach employed for the Newton and GCRF evaluations focused on awards as the unit of analysis. There are merits, but also drawbacks, to this - at least for the ISPF evaluation:

- Our initial analysis of the ISPF portfolio suggests that it is delivered through a combination of programmes, with and without calls for awards. With an award-based approach to VfM assessment, either an entire programme of activities would be treated as an 'award' or programmes without awards would be excluded entirely.
- An award focus may also create difficulties in assessing the types of initiative supported via STFC, NPL or ESC, which often involve providing individual researchers and innovators/businesses with access to support and facilities (meaning that each individual 'project/award' is too granular to be able to understand their activities).
- An important feature of some ISPF programmes is that they include a diversity of types of awards or activities (e.g. collaborative R&D, networking, training) and looking at an award in isolation would miss the potential synergies at programme level.
- Some relevant aspects of alignment and results do not materialise (and can therefore not be assessed) at award level. This is especially the case for the elements of the ToC that relate to strengthening partnerships at the institutional level, maintaining alignment with high level strategic objectives, or strengthening capacity at national or institutional level.
- A programme level approach should mean that a larger sample of the Fund's portfolio can be assessed with the same resource (e.g. similar resources may need to be invested to analyse 50 awards, as are required to analyse 20 programmes containing, on average, 50-100 awards each). However, it is also important to note that some award-level evidence collection will still take place, though this will be analysed at the aggregate (i.e.

programme) level. For instance, most Fund outputs (covered in the "Effectiveness" module of the Rubric) are expected to emerge at project level.

Given all of the above, we suggest implementing a hybrid approach, similar to that utilised in the Evaluation of the Fund for International Collaboration. This looked at two tiers of analysis: Tier 1(funders / programmes level) and Tier 2 (research and innovators / project level), and uncovered results materialising at each level, covering different aspects of the Fund ToC.

In drafting the ISPF VfM Rubric, we have therefore used a hybrid approach, whereby we use programmes as the main unit of analysis for most of the dimensions, and projects/awards (within those programmes) as a focus of analysis when relevant (e.g. for collecting information on outputs). We have also made a distinction between programmes with no calls/awards and programmes with awards when relevant. We also note that the rubric needs to apply across the entirety of the ISPF portfolio, including both ODA and non-ODA elements, and consultation and validation processes with the different POs has helped to ensure that this is the case.

The sampling strategy for the VfM approach is presented as part of Section 6.5.

The final analysis of "Value" is not performed at the programme level but at the Fund level. The VfM approach suggested here requires the evaluators to make (evidenced) value judgements for each individual unit of analysis, and as such, the initial assessment is done at programme level. However, the final analysis is **intended to be presented in an aggregate form.** This is important to stress, since the methodology will not be used to judge individual programmes. We don't expect each individual programme to score highly across all the VfM dimensions or sub-dimensions, but rather seek to get a view of performance of the **overall ISPF portfolio**. Understanding these intentions helps in circumventing potential (valid) criticism that a particular programme did not intend to align with *all* the aspects covered in the ToC.

VfM is an element of the effectiveness/Impact evaluation but does not cover all the elements. It is important to note that the VfM rubric sits within a wider framework for evaluating the impact of the Fund (as shown in Figure 21 above). The dimension *"Relevance / alignment of the activity (its scope, focus & intentions) with key ISPF objectives: > Strengthening R&I capabilities (UK & ODA), at all levels"*, is a case in point. The current Rubric provides a performance standard for ODA programmes, where we do expect to see dedicated activities in place to support this objective. The relevance to the UK could then be explored in a more qualitative way as part of the effectiveness/impact evaluation. Note that the UK and ODA countries' perspectives are then captured when looking at the dimensions related to actual outcomes.

There is a need to maintain a balance between codifying assessment criteria and allowing evaluators to exercise judgement. The rubric needs to be detailed enough for the resulting analysis to provide useful and informative results. However, it should not be so granular and complicated that those implementing it or reading the results struggle to understand it. It should also not be so closely prescribed that it cannot be applied across the diversity of the portfolio.

Additionally, we expect evaluators to find various contextual, programme specific issues which would mean adapting the assessment of a performance standard. To be more specific, we have in some cases used the phrase "Evidence suggests" and have listed relevant sources of information to allow for that degree of freedom, avoiding being overly prescriptive about what exact evidence this should be. Note that evaluators would need to justify their assessment, which will allow for further scrutiny and feedback of the approach taken in a particular case.

Table 5 lists the different evidence sources that are mentioned across the rubric and provides a summary of the number of sub-dimensions being addressed by each. Note that the sources for the VfM assessment were incorporated within Section 6.3 above (which provided further details on evidence sources) and are also considered further in Section 6.5 (sampling strategy).

Note that VfM analysis will be prepared and presented first as longitudinal case studies (one per programme in the sample), with each case covering all sub-dimensions of the analysis and drawing on multiple evidence sources. Each sub-section within a case study will then conclude with the scoring of the sub-dimension, which will then inform the VfM rubric assessment.

Table 5 Summary of sources and sub-dimensions

Source	Economy sub-dimensions	Efficiency sub-dimensions	Effectiveness sub-dimensions	Equity sub-dimensions	Sub-dimension Total*
Interviews with ISPF Programme Leads from UK and international funders / delivery organisations	5	3	10	4	**22**
Survey with UK and international project participants	1	3	11	4	**19**
RODA (incl. Allocations data)	1	1			**2**
Annual Commission data	1	1	9	1	**12**
Programme descriptions and call documentation	5			4	**5**
Overton (references in policy documents)			1		**1**
Any source*	**5**	**3**	**13**	**4**	**25**

*Note that most sub-dimensions combine multiple sources, so columns cannot be summed to arrive at the total number of sub-dimensions shown in the final row.

6.4.3 *Qualitative Comparative Analysis*

6.4.3.1 Overall approach

To further assess the contribution of ISPF to the achievement of outcomes we suggest implementing a Qualitative Comparative Analysis (QCA). Different procedures within QCA are used to answer three related evaluation questions:

- What causal factors are needed for the outcome to occur?
- What causal factors are most effective (alone or in combination) for the outcome?
- What causal factors make the difference for the outcome, under what circumstances?[13]

[13] https://eba.se/en/reports/pathways-to-change-evaluating-development-interventions-with-qualitative-comparative-analysis-qca/4157/

Overview of the QCA Approach

As stated in the HMT Magenta Book (Annex A[14]), QCA is a pragmatic method to compare different aspects of an intervention and contextual factors to understand the different characteristics or combinations of characteristics which are associated with outcomes. It enables systematic comparison based on qualitative knowledge. Rather than examining the factors causing a specific outcome in depth, as in a single case study, QCA focuses on identifying a variety of patterns. This allows for both complex causation (combinations of factors) and 'equifinality' (multiple causes of an outcome) to be accounted for.

Another characteristic of QCA is that it allows for the exploration of the effects of multiple conditions that could be correlated. This is particularly important for R&I studies where there is expected to be a high degree of interaction (correlation) among multiple factors. This is an advantage of QCA over regression analysis where correlation among explanatory variables brings a problem of 'multicollinearity'. In QCA multicollinearity is called limited diversity, a feature of many naturally occurring phenomena[15].

Data for a QCA are collated in a matrix form (sometimes called a 'QCA matrix' or a 'truth table'), where rows represent cases, columns represent conditions, and the rightmost column indicates the presence or absence of the outcome for each case. For each case, the presence or absence of a condition or outcome is recorded numerically.

There are several options for coding results, including a binary approach which records the presence of absence of a condition (0 or 1), fuzzy coding which denotes the partial absence or presence of a condition, presenting this as values from 0 to 1 to reflect the degree to which the condition is met (e.g. 0.25, 0.75). In cases where the condition can be present in more than one way, this can be represented by values of (0), (1), (2) or more – referred to as "multi' value[16]. This is used when a condition can have multiple states (e.g. type of awards).

The table illustrates how several cases can be codified in the QCA matrix for "Outcome 1"

Case	Condition 1	Condition 2	…	Condition N	Outcome 1
1	1	0.25	…	0	1
2	1	0.25	…	2	1
..	..	..	..	..	..
N	0	0.75		1	0

The coding and analysis of the QCA matrix should allow evaluators to conclude, for instance, that "a combination of Condition 1 and N leads to Outcome 1"

[14] HMT Magenta Book. Annex A. Analytical Methods for use within an evaluation.

[15] Haien Ding (2022). What kinds of countries have better innovation performance?–A country-level fsQCA and NCA study, Journal of Innovation & Knowledge, Volume 7, Issue 4, 2022, 100215, ISSN 2444-569X, https://www.sciencedirect.com/science/article/pii/S2444569X22000555#sec0009

[16] https://www.betterevaluation.org/methods-approaches/approaches/qualitative-comparative-analysis

There are three main reasons (advantages) for QCA being selected as an approach:

- It is a useful mechanisms to explore causality.
- It can be implemented using the information captured via longitudinal case studies and VfM assessment without the need for additional data / indicators, of further complexity within the evaluation exercise (see Section 6.5 on Sampling).
- It adds value to and reinforces the VfM approach, by including an approach to causality.

There are two main limitations to this approach:

- This method simplifies complexity (of the intervention) as it assigns a numeric value to the conditions that could lead to results (and the achievement of results). To mitigate this limitation, the analysis should only be presented as a synthesis, accompanied by the wider analysis of effectiveness as suggested in Section 6.4.1 (which will summarise the evidence from different sources, including case studies, to provide more context and nuance to results, as well as the ability to document unexpected outcomes).
- Not all outcomes can be represented as a numeric result and are more complex to capture and represent (e.g. increased reputation) and have been excluded from the QCA. Again, this limitation is mitigated by the wider analysis of effectiveness as suggested in Section 6.4.1.
- It requires completeness in data collection, meaning that if one indicator is not available for one case study, that case study will 'drop' from the sample. To mitigate this limitation evaluators are invited to consider excluding conditions for which there is not enough data / observations (to retain a high number of cases in the analysis).

6.4.3.2 A QCA for ISPF

To develop the QCA approach (and matrices) for ISPF we have drawn from:

- The ToC and pathways to impact (as described in Section 4.3 and Appendix B) which showcase how different outputs interact to deliver outcomes
- The performance indicator matrix (as described in Section 6.2 and Appendix D)
- The value for Money Rubric (as described in Section 6.4.2 and presented in Appendix E)

In terms of sampling, we suggest using the same sample for the QCA as for the VfM assessment, and this is further explained in Section 6.5.

For each case, we suggest including **two sets of conditions** in the truth table:

- Characteristics of the programmes, including whether they are ODA/ non-ODA, their budget, duration, state of implementation, type of implementation (with or without awards) and type of activity (see Table 6).
- Outcome specific conditions, including outputs being achieved, and assumptions being met (in line with the ToC and pathways to impact) (see Table 7 to Table 11). The outcomes included have been selected because they can be more easily quantified / qualified as being achieved or not. Progress and achievements in relation to other outcomes will still be assessed as part of the wider effectiveness analysis.

In each of the six tables that follow we present a short description of the condition, the source of the information and the recommended numerical coding (either fuzzy or binary). It is important to note that suggested values for the 'fuzzy' coding are indicative, and that we strongly recommend conducting sensitivity analysis to test the extent to which / how changing those values affects the final results and conclusions.

Table 6 QCA Truth table – all outcomes

Condition	Description	Source	Coding
Condition A (Characteristic)	ODA/ non-ODA	Annual Commission	Binary (Yes=1 / No=0)
Condition B (Characteristic)	Budget	RODA / Allocations Data	Fuzzy (Quartiles=0.25, 0.5,0.75,1.0, based on the distribution of budget across the sample)
Condition C (Characteristic)	Duration	RODA(plus PO consultation if necessary)	Fuzzy (Quartile=0.25, 0.5,0.75,1, based on the distribution of duration of programmes across the sample)
Condition D (Characteristic)	Stage of implementation	RODA (plus PO consultation if necessary)	Binary (Finished=1 / Ongoing=0)
Condition E (Characteristic)	Type of implementation	RODA	Binary (With awards=1 / without awards=0)
Condition F (Characteristic)	Type of award	Evaluation	Multi-value (e.g. Collaborative R&D=1)

Table 7 QCA matrix – Attainment of outcomes: Developing international R&I partnerships

Condition	Description	Source	Coding
Outcome	**Strengthened equitable partnerships that continue over time (including via established ways of working)**	VfM (Dimension 3.2.2 in VfM framework)	Binary (Yes=1 / No=0) Where 'Yes'= 'Excellent' & "Good' from Rubric (and 'No' otherwise)
Condition A-F	As above		
Condition 1 (Relevance)	*Relevance / alignment of the activity (its scope, focus & intentions) with key ISPF objective: Developing long-term strategic international R&I partnerships, at all levels*	VfM (Dimension 1.1.1 in VfM framework)	Fuzzy (Rubric. Poor=0, Acceptable=0.25, Good=0.75 Excellent=1)
Condition 2 (Co-funding)	Co-funding / contributions in kind for ISPF activities	VfM (Dimension 1.2.1 in VfM framework)	Fuzzy (Rubric. Poor=0, Acceptable=0.25, Good=0.75 Excellent=1)
Condition 3 (Output achieved)	New & strengthened partnerships within / across sectors (academia, industry, third sector, policy, funders)	VfM (Dimension 3.1.3 in VfM framework)	Fuzzy (Rubric. Poor=0, Acceptable=0.25, Good=0.75 Excellent=1)
Condition 4 (Output achieved)	New MoUs / Agreements established	Annual commission (B5 Number of new partnership agreements (e.g. MoUs) (plus detail on agreement level [B/C/D], reference number, gov-to-gov or international partner org, relevant Fund and calendar year signed) (O5 in indicator matrix)	Binary (Yes=1 / No=0) *The assessment of MoUs is included in the Rubric above, but this indicator isolates the effect of having MoUs or not.

*Table 8 QCA matrix – Attainment of outcomes: Delivering solutions to shared challenges**

Condition	Description	Source	Coding
Outcome	**Increased or improved ability to tackle global & socioeconomic challenges via use / uptake / application of solutions developed through ISPF**	VfM (Dimension 3.2.3 in VfM framework)	Binary (Yes=1 / No=0) Where 'Yes'= 'Excellent' & "Good' from Rubric (and 'No' otherwise)
Condition A-F	As above		
Condition 1 (Relevance)	*Relevance / alignment of the activity (its scope, focus & intentions) with key ISPF objectives:* > Delivering solutions that contribute towards addressing specific shared challenges (that fall within at least one of the ISPF Themes)	VfM (Dimension 1.1.2 in VfM framework)	Fuzzy (Rubric. Poor=0, Acceptable=0.25, Good=0.75 Excellent=1)
Condition 2 (Co-funding)	Co-funding / contributions in kind for ISPF activities	VfM (Dimension 1.2.1 in VfM framework)	Fuzzy (Rubric. Poor=0, Acceptable=0.25, Good=0.75 Excellent=1)
Condition 3 (Output achieved)	Paving the way for the uptake / application of research outputs	VfM (Dimension 3.1.4 in VfM framework)	Fuzzy (Rubric. Poor=0, Acceptable=0.25, Good=0.75 Excellent=1)
Condition 4 (Output achieved)	Paving the way for the uptake / application of innovation outputs	VfM (Dimension 3.1.5 in VfM framework)	Fuzzy (Rubric. Poor=0, Acceptable=0.25, Good=0.75 Excellent=1)
Condition 5 (Assumption met)	ISPF-funded research tackles global and socioeconomic challenges and this is widely disseminated among (and accessible to) relevant end-users.	Annual Commission (B6 Number of events/workshops/symposiums attended, hosted and presented at (+ published case studies)) (O8 in indicator matrix)	Binary (Yes=1 / No=0) Where 'Yes'= activities taking place
Condition 6 (Assumption met)	ISPF-funded research tackles global and socioeconomic challenges and this is widely disseminated among (and accessible to) relevant end-users.	Annual Commission (B4 Number of instances of policy engagement or policy influence (+ description, link to case studies, details of partnership country) [in relation to the engagement part].) (O8 in indicator matrix)	Binary (Yes=1 / No=0) Where 'Yes'= activities taking place

*Outputs related to R&I outputs are not included as there is no reason to believe that the number/volume of those outputs are a condition to attain the outcome, but rather that they are used and /or taken up.

Table 9 QCA matrix – Attainment of outcomes: Strengthening R&I capabilities

Condition	Description	Source	Coding
Outcome	**Increased research capabilities, incl. leadership (UK & ODA beneficiaries)**	VfM (Dimension 3.2.4 in VfM framework)	Binary (Yes=1 / No=0) Where 'Yes'= 'Excellent' & "Good' from Rubric (and 'No' otherwise)
Condition A-F			
Condition 1 (Relevance)	*Relevance / alignment of the activity (its scope, focus & intentions) with key ISPF objectives:* > Strengthening R&I capabilities (UK & ODA), at all levels	VfM (Dimension 1.1.3 in VfM framework)	Fuzzy (Rubric. Poor=0, Acceptable=0.25, Good=0.75 Excellent=1)
Condition 2 (Output achieved)	New & strengthened partnerships within / across sectors (academia, industry, third sector, policy, funders)	VfM (Dimension 3.1.3 in VfM framework)	Fuzzy (Rubric. Poor=0, Acceptable=0.25, Good=0.75 Excellent=1)
Condition 3 (Output achieved)	New/improved understanding of user needs, research methods, EDI, Responsible R&I, research management, international collaborative	> Survey with ISPF project participants (UK and international) (O14 in indicator matrix)	Binary (Yes=1 / No=0) Where 'Yes'= 50% of respondents agreeing with statement
Condition 4 (Spillovers)	Enhancement of the skills and capabilities of individuals or institutions to undertake R&I more effectively and efficiently in future	VfM (Dimension 2.2.1 in VfM framework)	Fuzzy (Rubric. Poor=0, Acceptable=0.25, Good=0.75 Excellent=1)

*Table 10 QCA matrix – Attainment of outcomes: Strengthening SRTI quality**

Condition	Description	Source	Coding
Outcome	**Increased or sustained quality / competitiveness R&I in ISPF themes (UK & ODA beneficiaries)**	VfM (Dimension 3.2.5 in VfM framework)	Binary (Yes=1 / No=0) Where 'Yes'= 'Excellent' & "Good' from Rubric (and 'No' otherwise)
Condition A-F			
Condition 1 (Relevance)	*Relevance / alignment of the activity (its scope, focus & intentions) with key ISPF objectives:* > Strengthening SRTI quality through international collaboration (UK & ODA)	VfM (Dimension 1.1.4 in VfM framework)	Fuzzy (Rubric. Poor=0, Acceptable=0.25, Good=0.75 Excellent=1)

* Note that the VfM rubric already includes the attainment of outputs in its assessment so in this case the analysis will be done for 7 conditions (6 on characteristics and 1 on Relevance, which assesses the extent to which the programme clearly demonstrates that the partnership will deliver research of high quality).

Table 11 QCA matrix – Attainment of outcomes: Shaping / influencing wider SRTI ecosystems

Condition	Description	Source	Coding
Outcome	**Shaping / influencing wider SRTI ecosystems**	VfM (Dimension 3.2.6 in VfM framework)	Binary (Yes=1 / No=0) Where 'Yes'= 'Excellent' & "Good' from Rubric (and 'No' otherwise)
Condition A-F			
Condition 1 (Relevance)	*Relevance / alignment of the activity (its scope, focus & intentions) with key ISPF objectives:* > Developing long-term strategic international R&I partnerships, at all levels	VfM (Dimension 1.1.1 in VfM framework)	Fuzzy (Rubric. Poor=0, Acceptable=0.25, Good=0.75 Excellent=1)
Condition 2 (Relevance)	*Relevance / alignment of the activity (its scope, focus & intentions) with key ISPF objectives:* > Delivering solutions that contribute towards addressing specific shared challenges (that fall within at least one of the ISPF Themes)	VfM (Dimension 1.1.2 in VfM framework)	Fuzzy (Rubric. Poor=0, Acceptable=0.25, Good=0.75 Excellent=1)

6.4.4 *Return on investment*

6.4.4.1 Overview

As explained in sub-section 6.4.2 (and visualised in Figure 21), we are recommending the implementation of a holistic approach to VfM assessment for ISPF. This is because more traditional methods focused on Return on Investment (which require the monetisation of outcomes) would not fully capture the myriad benefits expected to emerge from ISPF. Having said so, we do recommend also conducting a Return on Investment exercise that focuses on some of the economic outcomes from ISPF, specifically the potential benefits for business performance (due to increased innovation), with a focus on UK participants.

6.4.4.2 Approach

A return on investment assessment requires estimating costs and benefits.

Cost - On costs, and in accordance with HMT Green Book, the approach should include all costs, to all stakeholders involved, including:

- Direct public funding: This will include the value of the ISPF grant
- Public funding leverage from other sources: This will include any other source of public funding leverage to conduct or advance the ISPF project
- Direct private funding: This will include funding provided by the private sector participant to conduct or advance the ISPF project, including (but not restricted to) match funding requirements
- Private funding leverage from other sources: This will include any other source of private funding leverage to conduct or advance the ISPF project (including equity investment)

Benefits - We recommend focusing on two indicators: **turnover and productivity**. In line with, HMT Green Book, the focus should be on the latter in so far that this is a better indication of additional economic activity / gains. However, productivity gains tend to take longer to materialise, so we suggest conducting the exercise on both indicators. Additionally, we also suggest conducting a similar exercise for employment. This will not feed directly into the RoI (as it will not be monetised) but provides a useful additional impact indicator.

We also recommend following a **quasi-experimental design (QED) approach,** to capture the net effect of ISPF on business performance. This will entail capturing information on two groups:

- **Treatment group**: UK participants in ISPF projects
- **Control group**: There are two options for a control group:
  - One option is to use unsuccessful applicants as a control group. The logic is that, by applying, unsuccessful applicants have expressed interest in developing a project for ISPF (which in turn showcases an interest to develop R&I projects within an international collaboration context). Unsuccessful applicants could of course have different characteristics to participants (successful applicants) and these can be addressed (or minimised) by implementing appropriate statistical techniques.

    This group can be used for programmes that have competitive call for proposals, and where it will be possible to get access to unsuccessful applicant details.

- Another option is to use businesses from the general population as a control group. This set of business are less comparable to the treatment group (and to unsuccessful applicants), and will require implementing appropriate statistical techniques to further ensure comparability, understanding certain aspects (such as innovation behaviour).

  This group can be used for programmes that do not have calls for proposals, and consequently by definition, there are no unsuccessful applicants.

In terms of specific QED methods, we suggest combining a Difference-in-difference approach with a Propensity score matching:

- **Difference-in-difference (DiD)**: As stated in the HMT Magenta book, impact is measured by studying the outcome of interest before and after the intervention for two groups; one subject to the intervention and the other not. First, the trend lines for the outcome of interest (turnover and productivity in this case) for the two groups are compared for the pre-intervention period. Where these trend lines move in parallel over time, a counterfactual trend can be estimated for the treated group, which is then used to estimate the impact of the intervention. Note that DiD works best when it is possible to get access to trend data, but in practice, this would only work if it is possible to match participant companies to secondary data sources (such as IDBR), and will be more difficult to apply using primary data collection (which tends to have a high level of attrition for financial questions).

  Note that we have considered proposing a Regression Discontinuity Design (RDD), which will entail building a control group among those unsuccessful applicants that were close to the needed scores to become successful, but this may not be possible if: not all programmes have set and known scoring systems to select participants, and /or the sample size of those unsuccessful applicants that 'just' pass the needed scores (or did but were not funded due to unavailable budget) is small. As such, we do not recommend using (RDD).

- **Propensity score matching**: As stated in the HMT Magenta book, Propensity Score Matching (PSM) is a statistical technique that enables evaluators to construct a counterfactual group to estimate the impact of an intervention. This is achieved by matching treatment observations to one or more control observations based on their probability of being treated (or their propensity score). This is calculated using observable characteristics that determine the likelihood of participation and varies between 0 and 1 (where 1 is 100% likely to be treated). This technique allows the identification of comparable treatment and control groups. It will help to improve the robustness of the analysis if 'unsuccessful applicants' are used as a control group. Moreover, it would be a requirement if 'businesses from the general population' are used as a control group.

Finally, in terms of data sources (and as alluded to above), we recommend using secondary data for this exercise.

There are two options for this analysis:

- **ORBIS/FAME.** A proprietary database that collects information on the financial performance of companies based on publicly available information as contained in Companies House. The main drawback of this dataset is that, in accordance with the 2006 Companies Act, small and medium-size companies can prepare and file abbreviated accounts, which means data tends to be missing for those companies.

- **Inter-Departmental Business Register (IDBR).** The IDBR is a comprehensive list of UK businesses used by government for statistical purposes. The IDBR provides the main sampling frame for surveys of businesses carried out by the Office for National Statistics (ONS) and government departments. It is also an important data source for the analysis of business activities. It is possible to access this dataset via the ONS Secure Research Service (SRS), which would require having accredited researchers, and following an approval process with the ONS for both the project itself and the outputs that emerge. The main drawback is that the ONS approval processes tend to take a long time and can be unpredictable. Based on past experience, the process from beginning to end can take up to 1 year.

The main advantage of using secondary data is that it is possible to construct time-series i.e. information over a long period of time across all businesses. The main disadvantage of using secondary data sources is that information tends to be aggregated across all subsidiaries making it difficult to track which specific part of the company engaged with the programme.

In contrast, collecting financial data via survey (primary data collection) tend to lead to few data points and information for only a limited set of years. Also, this approach does not necessarily help to solve the issue of subsidiaries, but respondents seldomly hold relevant financial information at subsidiary level.

In both cases (secondary data and primary data sources), this analysis is better restricted to SMEs.

6.5 Sampling strategy

As mentioned above, we suggest applying the same sampling strategy to the development of both the VfM and QCA approaches (see Section 6.5.1). Using the same sample offers two main advantages:

- It maximises the use of the data set produced in the context of the study
- It adds value to and reinforces the VfM approach, by including an approach to causality

We do not foresee are major limitations in using the same data set (but do see value in expanding the sample of 20 longitudinal cases if resources allow).

A different approach to sampling is recommended for RoI analysis (see Section 6.5.2).

6.5.1 Approach to selecting cases for VfM and QCA

To select cases for the VfM and QCA analysis, we suggest a **two-stage stratified approach**.

The first stage focuses on two main aspects: (i) the focus of the programmes in terms of ODA or non-ODA; and (ii) budget (based on total allocations as reported in the Section 5, which currently correspond to the period 22/23 – 24/25).

We are suggesting **a total of 20 cases (programmes) to be developed as longitudinal case studies.** This is relatively fewer 'cases' than for other similar Fund evaluations (e.g. for GCRF 50 cases were included), but this is due to the fact that the unit of analysis for an ISPF case is a programme not a project, and this requires substantially more resources to develop. In fact, the suggested selection of programmes below has so far awarded 121 projects, i.e. 2.5 times more than covered in prior evaluations. This number of awards may also increase over time if programmes continue to give awards.

The ISPF portfolio currently has a 61% / 39% split between ODA and non-ODA programmes (based on allocations), so we suggest having a similar split in the sample of cases (i.e. around 12 ODA programmes and 8 non-ODA programmes in a sample of 20).

The budget profile of ODA and non-ODA programmes is different, so for each part of the portfolio we have calculated key statistics (average, mean, median, etc. as presented in Table 12) and used these to produce bands, show the distribution of the population (of programmes) across those bands, and to estimate a distribution of 20 case studies (see Table 13). The **final result, in terms of the recommended size of the sample is 21 cases,** due to rounding.

In terms of implementation, in this first stage, we have randomly selected cases across the programmes that belong to each of 8 clusters (=4 budget bands x 2 types of programme).

The second stage focuses on two additional aspects: ISPF themes and activity types. Since some programmes include more than one ISPF theme and more than one type of activity we suggest contrasting and comparing the distribution of the stratified random sample of the first stage against the distribution of the population (of programmes). This may call for the need to find replacements (again at random) to balance the distribution (e.g. replacing an ODA programme in one budget band for another ODA programme in the same budget band, but with a different thematic focus or containing a different primary activity type).

Final sample. The second stage review showed that the sample did not capture programmes whose primary activity is Translational Research, and that the final sample could benefit from the inclusion of additional POs. With that in mind, the sample was updated to cover those aspects, with two cases removed, and two added.

Table 14 to Table 17 present the distribution of the final sample against the distribution of the population, by theme, activity type, PO and partner country. We recommend **not** looking to mimic the distribution of these for ODA and non-ODA programmes as this may prove impractical (or even impossible) to reproduce given the small sample.

Table 12 Distribution of Total Allocations 22/23 – 24/25

Statistics	ODA	Non-ODA
Median	£ 1,156,000	£500,000
Average	£ 2,893,184	£879,538
1 standard deviation above average	£ 9,372,173	£ 2,027,198
2 standard deviations above average	£ 15,851,162	£ 3,174,857
Maximum	£ 45,186,141	£ 6,250,000
Total	£153,338,746	£ 96,749,198
As % of total allocations	61%	39%

Table 13 Sample distribution, based on first stage criteria

	Strata for sampling	Population (number of programmes	%	Sample size per strata	Sample size per strata (rounded)
ODA	Up to £1m	26	49%	5.887	6
	Higher than £1m and lower or equal to £3m	15	28%	3.396	3
	Higher than £3m and lower or equal to £10m	9	17%	2.038	2
	Higher than £10m	3	6%	0.679	1
					12
Non-ODA	Up to £500k	56	51%	4.073	3
	Higher than £500k lower that £1m	22	20%	1.600	2
	Higher than £1m lower that £3m	25	23%	1.818	2
	Higher than £3m	7	6%	0.509	2
					9

Table 14 Sample distribution – Primary type of activity

Primary type of activity*	Population	%	Ideal distribution (rounded)	Sample
International Collaborative Academic Research	68	55%	11	6
Translational Research & Impact Realisation	3	2%	1	1
International mobility (incl. fellowships, secondments)	5	4%	1	1
Institutional R&I capacity building	7	6%	1	2
International Collaborative Business-led RD&D	20	16%	3	2
Investment in & access to infrastructure / facilities	4	3%	1	3
Pump-priming & Networking and workshops	16	13%	3	3

*3 programmes not tagged against "Primary activity type" as information was provided after the tagging exercise.

Table 15 Sample distribution – ISPF themes

ISPF Themes	Population	%*	Ideal distribution	Sample
Resilient Planet	61	45%	9	10
Transformative Technologies	63	46%	9	7
Healthy People, Animals & Plants	36	26%	5	5
Nurturing Tomorrow's Talent	50	36%	7	10

*Does not sum to 100%, as programmes can be tagged against multiple themes.

Table 16 Sample distribution – PO

Partner Organisations	Population	%	Ideal distribution	Sample
AHRC	3	2%	0	0
AMS	9	6%	1	3
BA	9	6%	1	2
BBSRC	7	4%	1	1
BC	12	7%	2	1
CPC	2	1%	0	0
EPSRC	10	6%	1	1
ESC	7	4%	1	2
ESRC	2	1%	0	0
FI	1	1%	0	0
IUK	9	6%	1	1
MO	14	9%	2	2
MRC	10	6%	1	1
NERC	7	4%	1	1
NPL	15	9%	2	1
OREC	4	2%	1	0
RAE	11	7%	1	1
RS	3	2%	0	1
STFC	14	9%	2	2
UKAEA	10	6%	1	1
UKRI	1	1%	0	0
UUK	3	2%	0	0

Table 17 Sample distribution – partner countries

Partner country	Population	%*	Ideal distribution**	Sample
Australia	11	7%	1	1
Brazil	25	15%	3	8
Canada	23	14%	3	1
China	8	5%	1	0
Denmark	1	1%	0	0
Egypt	22	13%	3	6
France	6	4%	1	1
Germany	12	7%	2	1
India	24	15%	3	5
Indonesia	22	13%	3	7
Ireland	4	2%	1	0
Israel	10	6%	1	0
Japan	27	17%	3	4
Jordan	16	10%	2	5
Kenya	23	14%	3	7
Latvia	1	1%	0	0
Malaysia	21	13%	3	7
Netherlands	5	3%	1	0
New Zealand	4	2%	1	0
Norway	0	0%	-	0
Philippines	20	12%	3	7
Singapore	13	8%	2	0
South Africa	25	15%	3	9
South Korea	14	9%	2	0
Switzerland	12	7%	2	4
Taiwan	9	6%	1	2
Thailand	17	10%	2	7
Turkey	14	9%	2	5
USA	28	17%	4	1
Viet Nam	19	12%	2	7

*Does not sum to 100%, as programmes can be tagged against multiple partner countries.

** Ideal is based on a one-case-one-country distribution, so is not directly comparable with the sample (where multiple countries may be covered by one case).

Final remarks on recommended sample

Based on the approach and parameters described above, **we have identified a sample of 21 programmes**. The list is provided in Appendix F.

By definition, the list follows the distribution above in terms of ODA/non-ODA programmes and budget bands. In addition, it follows closely the expected number of cases given the distribution of activity types and ISPF themes in the population (shown in Table 14 and Table 15). The sample also provides a good representation across POs (with 15 organisations included[17]) and ODA and non-ODA partner countries (13 and 10 different countries respectively are included across the sample).

The suggested sample accounts for 31% of the total allocations (=£78.2m/£250.1m). However, it is important to note that this is driven by the fact that the current sample includes one of the two 'outliers' in terms of budget (the Energy Catalyst programme, with a budget of £45.2m).

It also important to note that the Energy Catalyst has been evaluated in the past (and may be evaluated in future), so one option is to exclude it from the sample and only retain 20 cases. But, if this programme is removed from the sample, the representation of the sample against the total budget (currently 30%) will inevitably decrease. This will still be the case if this programme is replaced with another, since the next largest budget is around £10m.

Also note that these cases are expected to be developed longitudinally. Section 9 provides costing options for including additional (new) cases at the final stage of the evaluation.

6.5.2 Approach to sampling for RoI

Our initial analysis of the ISPF portfolio reveals that only 16% of the portfolio is primarily focused on International Collaborative Business-led RD&D. As such, we suggest conducting RoI analysis with all businesses participating in ISPF rather than sampling. We think this is also appropriate considering our suggestion is to use secondary sources for this analysis.

[17] POs not included within the sample are AHRC, CPC, ESRC, FI, OREC, RAE, RS, UKRI (itself), and UUK.

7 Process evaluation

We recommend a light-touch process evaluation is undertaken at an early stage (2026) that is focused at the Fund (rather than programme) level. **Key areas to explore** should include:

- Processes to ensure that Fund intentions and objectives are sufficiently communicated, understood and interpreted / reflected in the design of the portfolio
- Processes to ensure coherence, synergies and appropriate balance across the portfolio
- Processes and arrangements that ensure the Fund has sufficient agility to adapt to evolving priorities and needs, or other significant external factors
- Processes that ensure the Fund is learning adequately (from ISPF and other activities) and implementing that learning
- Processes to ensure appropriate levels and means of central (DSIT) oversight and management, despite the decentralised implementation of the Fund

In each case, the evaluation would be tasked with addressing three broad **questions**:

- What processes are in place, how have these been implemented, and by whom?
- How well (how effectively, how efficiently) have these processes worked, what has worked more or less well, and what have been the important facilitators and barriers?
- What lessons have / could be learned that that would help for the future implementation of ISPF, or other similar initiatives?

We would suggest that some further consultation within DSIT may be useful in validating the above areas (their relevance and completeness), and also whether there are specific aspects of these processes that are of particular interest (and therefore should be a key focus).This process could take place before commissioning, or as part of early scoping activities.

Based on the current list of areas and questions, the evaluation should then consider several different **evidence collection and analysis activities** that might include:

- Desk-based review of Fund documentation
- Process mapping (including key processes, actions and stakeholders involved)
- Consultation with key stakeholder groups identified in the mapping (mainly individuals within DSIT and the ISPF Partner Organisations). Depending on the number of relevant individuals identified, the consultation may take different forms for different groups (one-on-one / group interviews, workshops and / or surveys)

8 Baselining approach

Following the finalisation of this Evaluation Framework, the study will proceed to its final phase, Baseline Assessment. According to the specifications the **Baseline assessment report should:**

- Contain a mapping of programme activities to provide a detailed picture of ISPF funded activities by output typology, theme, geography, scale and value (portfolio analysis).
- Set baselines for each outcome to show the position at the start of ISPF, against which subsequent progress and achievements can be evaluated.

In addition to these requirements, we also propose to pilot some elements of the VfM rubric for a subset of the recommended sample, as explained below.

8.1 Mapping of programme activities

This part of the baseline assessment was initiated at an earlier stage (in preparation for the Evaluation Framework) to support the development of the sampling strategy and further our overall understanding of the Fund and how it is being delivered. A first version of this analysis is presented in Section 5 of the current report and contains information reported up to end of Q4 2023/24 (i.e. to 31st March 2024).

The baseline analysis will include the following characteristics:

- An updated portfolio analysis, based on information reported up to end of Q2 2024/25
- An analysis of the ToC (and update if relevant) based on the portfolio analysis.

8.2 Baseline indicators

As explained in Section 6.2, Appendix D presents an assessment of the relevance of establishing a baseline value for each indicator. Our analysis reveals that only a limited number of outcomes have available baseline values, as in many cases the starting value is zero (e.g. Value of co-funding (cash or in -kind), per programme. Total and as % of ISPF Funding).

There are 11 indicators for which we have identified the possibility of establishing a (non-zero) baseline value. These are presented in Table 18 below. These indicators correspond to 4 sources of data (including VfM). Below the table we provide further detail on how those data sources would be mobilised in the context of the baseline assessment.

In addition, for a number of indicators (12) that are marked as "Not applicable (starting value of 0)" in the appendix, but we have also indicated that "initial assessment will be done as part of the baseline evaluation workstream". These relate to indicators emerging from the Portfolio analysis, and correspond to inputs and activities as described in the ToC. As such, they will be presented as part of the mapping of programme activities described above.

Table 18 Baseline indicators

Type	Ref No.	ToC Element	Recommended (additional / alternative) Indicators	Sources	Included in VfM?	Relevant VfM sub dimension	Baseline	Comments on the baseline
Output	**O3**	Joint areas of interest / priorities est. (country, funder, researcher / innovator)	Examples of joint areas of interest / priorities identified (country, funder)	> Programme leads template / interviews > Survey with ISPF project participants (UK and international)	**N**		Number of existing MoUs gov-to-gov or international partner org, before ISPF	
Output	**O11**	New and improved technologies / increased TRL	Percentage of projects that advance one or more TRL levels due to ISPF funding	> Survey with ISPF project participants (UK and international)	**N**		TRL starting point at the point of application	
			Percentage of programmes /projects that have made progress in terms of market readiness as a result of ISPF funding.	> Survey with ISPF project participants (UK and international)	**Y**	3.1.5 Paving the way for the uptake / application of innovation outputs	MRL starting point at programme / project start	
Output	**O14**	New/improved understanding of user needs, research methods, EDI, Responsible R&I, research management, international collaborative research, MEL (among researchers, managers, industry)	Percentage of ISPF participants for whom participation on the ISPF project has led to new/improved understanding of user needs, research methods, EDI, Responsible R&I, research management, international collaborative research, MEL (among researchers, managers, industry)	> Survey with ISPF project participants (UK and international)	**N**		Starting point at the point of application	
Output	**O15**	New/improved understanding of available research capacity, capabilities & infrastructure among partners	Percentage of ISPF participants for whom participation on the ISPF project has led new/improved understanding of available research capacity, capabilities & infrastructure among partners	> Survey with ISPF project participants (UK and international)	N		Starting point at the point of application	
Outcome	**OC4**	**Increased ability** of UK and partner countries **to collaborate** on R&I (incl. access to infrastructure	Percentage of ISPF participants for whom participation on the ISPF project has led to new/improved access to research infrastructures	> Survey with ISPF project participants (UK and international)	N		Starting point at the point of application	
Outcome	**OC6**	**Increased research capabilities, incl. leadership (UK & ODA beneficiaries)**	Percentage of ISPF participants for whom participation on the ISPF project has led to increased research capabilities, incl. leadership + examples	> Survey with ISPF project participants (UK and international) + follow up interviews	N		Starting point at the point of application	
Outcome	**OC7**	Improved **connectivity between industry and academia** (UK & ODA beneficiaries)	Percentage of ISPF participants for whom participation in the ISPF project has led to improved connectivity with industry / academia	> Survey with ISPF project participants (UK and international)	N		Starting point at the point of application	
Outcome	**OC8**	Increased or sustained **quality / competitiveness R&I** in ISPF themes (UK & ODA beneficiaries)	As per existing KPI, plus: Citation impact - as measured by Average of Relative Citations (ARC) and HCP (Highly cited papers) - of ISPF publications (total, broken down by ISPF themes, gender and field/sector). Also bibliometric analysis of international co-publications, multi- and inter-disciplinary papers, and research novelty (based on unusual combinations of cited references)	> DSIT analysis (KPI B9), based on Annual Commission (KPI B7) > Bibliometric data / analysis	Y	3.2.5 Attainment of outcomes: Strengthening SRTI quality	Citation impact (as described in the indicator) for ISPF researchers (before ISPF)	Baseline assessment can be made at baseline evaluation stage, or retrospectively alongside the first interim impact assessment.
Outcome	**OC10**	Increased **income from commercialisation** of research & technology, incl. from	Percentage of ISPF participants for whom participation in the ISPF project has led to increased income from commercialisation of research &	> Survey with ISPF project participants (UK and international)	N		Starting point at the point of application	

		new markets (UK & ODA beneficiaries)	technology, incl. from new markets, plus estimated value					
Outcome	**OC12**	Increased or sustained **reputation of UK** as: R&I partner of choice; destination for talent	Percentage of international funders / delivery organisations for whom participation in the ISPF programme has led to a significant improvement in their own organisation's and other organisations' perceptions of the UK as an SRTI partner.	> VfM Case studies (interviews with international funders / delivery organisations, plus survey with international project participants)	Y	3.2.7 Attainment of outcomes: Improving international perceptions and reputation	Starting point at the point of application	

Programme leads template

We suggest approaching all ISPF partner organisations with a simple template to collate information on existing MoUs with international partner organisations (including ISPF partners), before ISPF. We will pre-populate the template with existing information we may find online and in the Annual Commission.

Survey with ISPF project participants (UK and international)

We suggest conducting a short survey with all ISPF participants UK and international to collect baseline information. The survey will be distributed online and will contain 6 sections. A draft of the survey is shown in Appendix G.

Bibliometric data / analysis

We suggest collecting citation impact (as measured by Average of Relative Citations (ARC) and HCP (Highly cited papers), for:

- The UK overall (i.e. for publications with at least one UK based author)
- The UK in collaboration with ISPF partner countries (i.e. for publications with at least one UK based author, and at least one author based in an ISPF partner country), by ODA and non-ODA. We suggest conducting this exercise in aggregate form rather than for each combination of UK and ISPF partner country (i.e. 25 times).

For both groups we also suggest producing indicators overall and by: ISPF Theme; field of research; and by gender of authors (papers that include at least one female author, in comparison with others). Finally, we suggest conducting this analysis for 10 years prior to ISPF, 2013-2023 (noting that citation data has 2-3 years of lags after publication, in addition to the 2-4 years that it can take for publications to emerge from specific projects and programmes).

8.3 Testing the rubric

We also suggest using the baseline phase to test the Economy component of the VfM rubric, which contains four sub-dimensions on relevance (and alignment with ISPF objectives) and one on leverage. We also suggest collecting baseline information on international funders / delivery organisations perceptions of the UK as an SRTI partner. These are the parts of the VfM rubric that are most appropriate for undertaking a first assessment at this early stage.

We would conduct this exercise for 10 programmes (out of the sample of 21). Since this exercise is meant to be exploratory, rather than representative, we suggest selecting them using purposive sampling, to cover 10 different POs, and a diversity of main activities (e.g. Table 19).

Table 19 Suggested sampling for testing the rubric

PO	ODA/NON-ODA	Primary Activity Type
BC	Non-ODA	International mobility (incl. fellowships, secondments)
UKAEA	Non-ODA	International Collaborative Business-led RD&D
BBSRC	Non-ODA	International Collaborative Academic Research
EPSRC	Non-ODA	International Collaborative Academic Research
STFC	Non-ODA	Investment in & access to infrastructure / facilities
AMS	ODA	Networking and workshops
MRC	ODA	International Collaborative Academic Research
MO	ODA	International Collaborative Academic Research
BA	ODA	Institutional R&I capacity building
IUK	ODA	International Collaborative Business-led RD&D

9 Resourcing and timetable

Table 20 presents a recommended approach for implementing the evaluation framework. This includes the main evaluation elements and stages, the suggested timing of each and broad estimates of the costs. These figures are indicative and presented to give a sense of scale, thereby supporting future design and commissioning.

We also present three options within the table, which highlight differences in cost if different decisions are made with respect to two elements: the number of cases included within the sample for longitudinal case studies, and (the focus of) the bibliometric analysis.

- Option 1: Based on 21 longitudinal case studies, and bibliometric analysis with a focus on the UK for bibliometric data.
- Option 2: Based on 21 longitudinal case studies and 5 new (additional) cases at the final stage, plus bibliometric analysis with a focus on the UK for bibliometric data
- Option 3: Based on 21 longitudinal case studies and 5 new (additional) cases at the final stage, plus bibliometric analysis with a focus on the UK and 5 key partner countries.

The budget suggested ranges from £1.3m to £1.6m, which is in keeping with current guidelines from DSIT Evaluation Strategy (which suggests evaluation budgets in DSIT are expected to be proportionate to the programme and the relevant evidence base, constituting circa 1 to 10% of programme budget with the primary rule for budget allocation being proportionality).[18]

As stated above, we recommend that the approach set out in this document is iterated and evolves as more evidence becomes available. In particular, the framework should be revised and updated after the Interim Effectiveness evaluation.

Table 20 Costing and timetable (indicative)

Elements of the evaluation	Timing	Option 1	Option 2	Option 3
Process Evaluation	2026	£50k	£50k	£50k
Interim Effectiveness Evaluation: incl. portfolio assessment, indicator analysis, VfM assessment & QCA	2026	£600k (incl. 21x£20k longitudinal case studies, plus VfM & QCA)	£600k	£675k (Option 2 plus additional bibliometric data, £15k-20k per country)
Progress report (updated analysis of portfolio and annual commission data)	2027	£50k	£50k	£50k
Final Summative / Effectiveness Evaluation incl. portfolio assessment, indicator analysis, VfM assessment & QCA, and RoI	2028	£600k (incl. 21x£20k longitudinal case studies, plus VfM & QCA)	£700k (Option 1 plus 5x£20k cases studies)	£775k (Option 2 plus additional bibliometric data, £15k-20k per country)
Total		**£1,300**	**£1,400k**	**£1,550k**

[18] https://www.gov.uk/government/publications/dsit-evaluation-strategy/dsit-evaluation-strategy

Appendix A Evaluation Framework methodology

A.1. Workstream 1: Scoping

The current study began with a short scoping phase, where discussions with DSIT and POs, plus some initial information provision and review, allowed the study team to develop a plan and approach for subsequent workstreams. The main activities during this initial period included:

- An inception meeting, held between the study team and DSIT to discuss study needs and objectives, the proposed approach, and preliminary information sharing and consultations
- A meeting with DSIT to discuss work undertaken so far on developing ISPF KPIs and targets
- A meeting with DSIT to discuss the development of VfM approaches through the Newton and GCRF evaluations, plus early plans for ISPF
- A presentation to the Evaluation Working Group (PO representatives) to introduce the ISPF baseline evaluation and outline plans for the coming year (including future engagement)
- The transfer and review of various background documentation and data relevant to the study, including the Fund Strategy and Business Case, the MEL Plan, details and status of existing KPIs, and information relating to existing monitoring systems
- The development of a Baseline Plan and individual approach papers for workstreams.

A.2. Workstream 2: Theory of Change Development

Workstream 2 concerned the development of a Theory of Change (ToC) for ISPF, including: (i) a diagram that communicates the intentions and expectations of the Fund; and (ii) an accompanying narrative that explains the different elements of the ToC, and explores the pathways by which inputs and activities are expected to lead to outputs, outcomes and impacts, plus any risks and assumptions. The approach to this workstream incorporated a desk-based review of ISPF documentation, consultation with DSIT Policy and Analyst Teams and ISPF Partner Organisations (POs), and development work by the evaluation team.

The individual worksteps involved were as follows:

- Review of documentation: A review of Fund documentation to identify and collate pre-existing information of relevance to the theory of the Fund. This included the Business Case, Monitoring, Evaluation and Learning (MEL) Plan and Fund strategy, as well as other policy and delivery documentation.
- Workshops with Policy Team and POs to develop the ToC: Three workshops were held to explore the theory of the Fund with DSIT Policy teams and ISPF POs (45 attendees in total). Each event followed a similar format, with short introductory presentations (to the study, the scope and purpose of the ToC, and the workshop), followed by a series of guided discussions (in plenary and break-out groups) to explore different elements of the ToC (from the rationale, to activities, outcomes and impacts, plus associated risks and assumptions). Slides were circulated afterwards, with an invite for any further contributions.
- Development of the ToC diagram and accompanying narrative: Inputs made to the workshops were noted and classified in a similar way to the initial desk-based evidence, with this material then used to develop the draft ToC diagram and narrative. An early version of the diagram was shared with DSIT and Partner Organisations for initial comments and feedback. The full draft ToC diagram and narrative was then presented to DSIT for further review and comment before being finalised.

A.3. Workstream 3: Performance Measurement

Workstream 3 concerned the development of performance measurement plans. This included:

- Assessing and further developing a suite of indicators for the Fund
- Assessing where and how baseline information can be collected against these indicators
- Considering where benchmarks might be used to assess progress and performance

DSIT had already developed a suite of 23 KPIs to measure the Fund's performance and outcomes, with evidence for these mainly being collected via established monitoring systems (the Annual Commission and quarterly reporting via RODA). The study was tasked with reviewing these KPIs and their alignment / relevance for addressing the ISPF ToC (which was developed through workstream 2). The study was also tasked with making recommendations for additional indicators that evidence should be collected against in order to better address the full ToC. The evidence for these additional indicators would need to be collected by future evaluators and so the approach (and source) for doing so should also be established.

The individual steps involved in this workstream have been as follows:

- Development of the ISFP ToC: This was undertaken through workstream 2, but provided a starting point for performance measurement as it defines the main inputs to, and activities of, the Fund, as well as the outputs and outcomes that are expected as a result.
- Review and analysis of existing KPIs: The study team followed the process to finalise Fund KPIs and then assessed the alignment of these with the elements of the new ToC. This was to understand what (of relevance) is already being captured through RODA and the Annual Commission, and the extent to which this was fully addressing evidence needs.
- Development of additional indicators: Where elements of the ToC are not being addressed through existing KPIs, the study team identified one or more additional indicators to fill these gaps. Some additional indicators were also identified for situations where KPIs were in place, but where the ambitions presented in the ToC went beyond the existing metric. Relevant sources of evidence for indicators were also determined and recorded.

  As part of this process, the study team also cross-referenced to the VfM rubric (developed through workstream 4, below) to understand where indicators and data collection plans had already been proposed for some elements of the ToC. Where this was the case, the study team sought to ensure alignment with indicators here, so as not to create duplication of effort in the collection of evidence for the two different purposes.
- Assessment of baseline approach: The study team identified those indicators for which baselining is not applicable because the baseline position is zero (for example, for the indicator on the number of spin-outs generated through ISPF funding). For the remaining indicators, an assessment was made of the relevant baseline to capture (e.g. for the indicator on increased research capabilities amongst ISPF participants, an assessment should be made of these capabilities at the point of application, which can then be compared with later assessments to understand the increment enabled by ISPF).
- Assessment of benchmarking possibilities: For each indicator, the study team also made an assessment of whether a relevant benchmark is available that could provide a source of comparison to help interpret results. A RAG (red, amber, green) rating is used to indicate the extent to which there is a relevant and useful source of benchmark available.
- Comments and iteration: A draft performance measurement report was shared with DSIT for review and comment. It was then revised based on the feedback received.

A.4. Workstream 4: Value for Money Assessment

Workstream 4 concerned the development of a Value for Money (VfM) rubric, including a set of value criteria and performance standards, plus a recommended sampling approach for VfM assessment. The individual worksteps involved in this workstream were as follows:

- Review and analysis of existing material and evidence: Fund documents (the Business Case, MEL Plan and Strategy) were reviewed for any early thinking on value for money in relation to ISPF, including provisional ideas for sub-dimensions, and any narrative relating to the "4 E's". The GCRF approach and rubric (as well as results and lessons learned from implementation) were also drawn on, as were outputs emerging from other workstreams of the current study, including the ToC (to identify relevant areas of value expected from ISPF) and the KPI analysis (for evidence collection that may also support the VfM assessment).
- Workshops with POs and Policy Teams to develop the VfM rubric: Two face-to-face workshops were held on ISPF VfM assessment, one with DSIT Policy teams, the other with ISPF Partner Organisations (with 29 attendees in total across the two events). These workshops focused on identifying and discussing the value propositions of ISPF and developing the sub-dimensions that capture and can be used to assess these different dimensions of ISPF value. Relevant performance standards were also explored and discussed in relation to some of these dimensions. Slides were circulated after the events, with an invite for any further contributions (including from those who could not attend the in-person workshops).
- Development of the VfM rubric: Discussions from the workshops, along with findings from the desk research, were used as inputs for the study team to then develop a draft VfM rubric (the sub-dimensions and performance standards) for ISPF. This draft rubric was presented for review and comment by DSIT and POs, before being further refined, based on the feedback received. Recommendations for implementation (including sampling) have then been integrated as part of the development of the wider evaluation framework.

A.5. Workstream 6a: Portfolio Assessment

Workstream 6a concerned the mapping of ISPF programme activities in order to provide a clear high-level overview of the portfolio, including breakdowns by relevant dimensions (e.g. by Partner Organisation (PO), ISPF Theme, ODA/non-ODA and geography, scale and value).

This mapping activity was initially part of the baseline assessment, which is to be undertaken at a later stage, following the finalisation of the evaluation framework. However, it was separated out and brought forward on the basis that a better understanding of the portfolio would assist in the finalisation of the evaluation framework. However, we will also return to and update the analysis (with the latest available data) for the baseline assessment.

The individual steps involved in this workstream were as follows:

- Analysis of RODA data: The latest available PO reporting through RODA (Q4 2023/24 submission) was provided to the study team by DSIT. This was interrogated to extract and consolidate information on the current ISPF portfolio for each Partner Organisation. For each 'Programme' within the portfolio, this included (where available from RODA) a brief summary of the programme, a start and end date, total amounts of spend to that point and future forecast spend, relevant partner countries, relevant ISPF Themes, and the number and value of awards made (where this is relevant to a programme).

It is therefore important to note that this data provides a snapshot in time (as of March 2024). Additional programmes will have been added, awards made, and funds expended over the subsequent months, which are not yet captured. The analysis will be updated at the point of the baseline evaluation and will capture these more recent changes and additions.

- Validation of draft portfolios: The consolidated view of each PO's ISPF portfolio was then shared (as an excel table) with that organisation for validation. The PO was asked to check (and if necessary, amend) the current information, and for each programme to also indicate the types of activities that would be supported (as well as the primary type, where more than one). A defined set of activity types were listed, based on the categories defined within ISPF Theory of Change (developed through workstream 2 – see Section 4).

  Note that UKRI holds its own 'live' database of the ISPF portfolio of all councils and IUK UK (and which also includes a tagging by activity type)[19]. This was used to validate the RODA-based portfolios for UKRI, as well as add the activity tagging. The database is more current than the RODA (e.g. with ~100 additional awards recorded), but to maintain consistency, we have not used this source to incorporate more recent ISPF activities in the analysis.

- Analysis and reporting: Extracted and validated information was recorded in a database for analysis, with key data, graphs and information then presented within a draft portfolio report. This draft report was shared with DSIT for review and comment, with the feedback then taken into account as part of the development of current version.

- Analysis of Allocations Data: Additional information on the ISPF portfolio was provided by DSIT after the first analysis was undertaken. This ISPF Level B Allocations data (maintained by the DSIT PMO team) records the original allocations of ISPF ODA and non-ODA funding (separately) across the different ISPF Partner Organisations and their Programmes (or delivery costs) and across financial years (2022/23, 2023/24 and 2024/25). There is the flexibility for partner organisations to re-balance their allocations within their ODA or non-ODA portfolios over time (e.g. increasing or reducing the scale of particular programmes), and this is then reflected in future year allocations within this database (once the change has been notified to DSIT through the ISPF Change Management Process). It also includes information on ISPF Themes and Partner countries for each programme (both of which can then also be updated in this database as part of the ISPF Change Management Process).

- Allocations data is used to present extra analysis within this report (based on the additional financial information it provides, including for some POs and programmes that do not yet appear in RODA). It has also been used to re-run analysis relating to ISPF Themes and Partner Countries (where allocations data should be considered more correct than RODA).

[19] Note that the UKRI database also includes some other fields that are not recorded within RODA: the primary ISPF theme, relevant ISPF sub-themes, partnership types (bilateral, multilateral, unilateral), the overseas partner organisation, the duration of funding, and match funding information (cash and in-kind, plus private investment).

Appendix BTheory of Change – Additional Information

B.1. ISPF Objectives

ISPF aims to address global challenges best tackled collaboratively, by empowering individuals, institutions, and systems to deliver enhanced outcomes and impacts, as well as positive international influence and improved perceptions for the UK. The objectives of the Fund are shown in Table 21 below.

Table 21 ISPF Objectives and Success Measures

Objective	Detail	Success
Objective 1: International partnerships with impact	We will deliver better research and innovation together than we could alone by developing long-term strategic international partnerships at every level to address shared priority areas.	Success will be measured by the contribution of ISPF international research and innovation partnerships to better research and innovation outcomes than delivered by domestic UK projects in similar thematic areas. We will also measure value for money.
Objective 2: Sustainable Global Development	We will support sustainable global development and address specific challenges facing low, middle, and high-income countries by developing equitable partnerships and delivering targeted programmes and initiatives that contribute to government strategic priorities.	Success will be measured by how well projects generate and apply solutions that make progress towards technical and development challenges in low- and middle-income countries. We will measure how many projects are linked with the achievement of Sustainable Development Goals (SDGs). We will also measure ISPF's contribution to the development of fair and equitable partnerships.
Objective 3: Enabling potential	We will strengthen research and innovation capacity for the UK and international partners at an individual, institutional, and systems level by empowering talented individuals and teams, promoting knowledge sharing and collaboration across borders, disciplines, and sectors, and supporting the development of new ideas.	Success will be measured by ISPF's contribution to strengthening research capacity at individual, institutional and systems levels
Objective 4: Collaborating at the forefront of STRI	We will strengthen the quality of UK science, technology, research, and innovation by collaborating with international partners at the forefront of STRI. This will benefit society and generate strategic advantage	Success will be measured by the number and nature of our international collaborations and the impacts of collaborative research in advancing science and technology knowledge and application.
Objective 5: Using our influence	We will help the UK to shape and influence global standards and norms by working closely with government agencies, international organisations, civil society, and other groups to advance a shared agenda on issues such as data protection, intellectual property, open science, and privacy.	Success will be measured by ISPF's generation of meaningful research outcomes that influence policy and practice.
Objective 6: Improving Perceptions	We will help to improve the reputation of the UK and UK research and innovation by building long-term relationships, working in a fair and transparent way, and demonstrating the benefits of our international partnerships.	Success will be measured by ISPF's contribution to improving the UK's reputation for international collaboration in research and innovation.

Source: ISPF MEL Plan, 08/01/2024

B.2. ISPF Research Themes

ISPF addresses four main themes that relate to major challenges and to supporting the talent necessary to address these. Each is explained further in Table 22 below.

Table 22 ISPF Research Themes

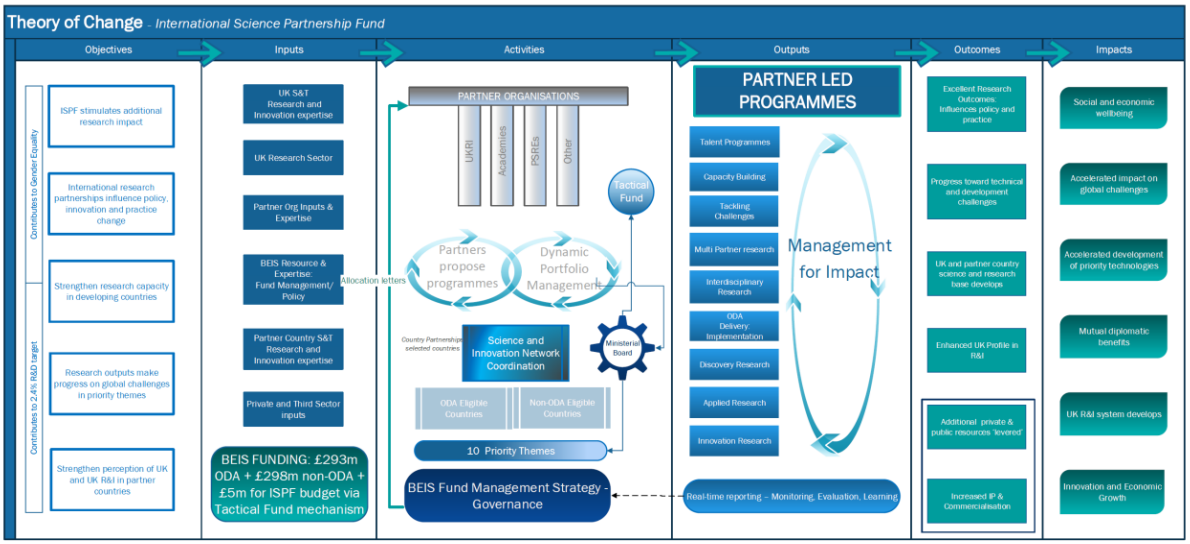
Theme	Key theme areas	Details
Resilient Planet "Leading the green industrial revolution to protect the planet"	• Clean energy and Net Zero (incl. supporting the Ayrton Fund) • Extreme weather and climate change • Agritech and food security (incl. supporting the Gilbert Initiative) • Environmental resilience • Disaster Risk Reduction (DRR)	Climate change and extreme weather are real and existential threats to how we live our lives, to our safety and to our prosperity. The UK has committed to reaching Net Zero carbon emissions by 2050, but carbon and climate do not respect borders. **Our challenge is to contribute to humanity's efforts to reduce carbon emissions, mitigate against climate change and adapt to the impacts of it.** For years, going green was inextricably bound up with a sense that we have to sacrifice the things we love, but through science, research and innovation, we know that we can drive a green industrial revolution which advances our socioeconomic prosperity whilst protecting both climate and nature.
Transformative Technologies "Developing responsible technologies to secure our place in tomorrow's world"	• Artificial Intelligence • Engineering biology • Semiconductors • Future telecommunications • Quantum technologies • Innovation ecosystems, Intellectual Property and Metrology	From the invention of the steam engine to the World Wide Web, new technologies have long revolutionised our economies, our health, our security and our leisure. Ensuring that the UK and our friends and allies remain at the forefront of technological advancements guarantees our place in the world as secure, prosperous and influential. By delivering on the five "critical technologies" established in the Science & Technology Framework, **our challenge is to form and strengthen industry-academia partnerships that bring forward emerging technologies and the business know-how to help them flourish.** Delivering technology to tackle the greatest global challenges. Transformative technology will change the way we use AI, our understanding and application of quantum physics and how we create global energy, bring about new way to develop and utilise semiconductors.
Healthy People, Animals & Plants "Researching and innovating to ensure secure and healthy populations"	• Biosecurity & pathogen detection • Global health & pandemics • Genomics & digital health • Antimicrobial Resistance (AMR) • Social determinants of health	The COVID-19 pandemic put unprecedented pressure on the health systems around the world and shone a spotlight on the importance of global health; it demonstrated that strong health systems can protect nations and economies. There is a need for concerted and collective action to get on track to achieve SDG 3 – to "Ensure healthy lives and promote well-being for all at all ages", leaving no-one behind. **Our challenge is to advance human, plant and animal health through innovative health tech, digital health, and deepening our understanding of pandemics, genomics, and pathogen detection, as well as improving our understanding of the socio-cultural mechanisms underpinning our relationship with vectors of health and disease**. To do this, we need to recognise that the health of humans, animals, plants and the environment we live in are inextricably linked and interdependent. We also need to work collaboratively through multiple disciplines working locally, nationally, regionally and globally to attain optimal health for all living things and the ecosystems in which they co-exist
Tomorrow's Talent "Nurturing talent to drive inclusion, research and innovation"	• Research capacity • Research systems • Research pipeline • Metascience	The best and most impactful innovations do not happen in a vacuum; they are contingent on developing the best and brightest minds. We cannot advance our global priorities without ensuring we have the necessary talent of people to do so. **Our challenge is to connect researchers and innovators, supporting their professional development and the translation of their ideas into businesses and products, and building global research networks.** We will ensure support for talent and innovation is delivered at individual, institutional and system levels, supporting the individual researchers and ensuring an open science institutional ecosystem so curiosity and potential can flourish. As the UK, we will advocate for better research governance, more open approaches to science and research and rigorous research ethics, and showcase the UK as a key research partner

Source: ISPF Strategy, 20/02/2024

B.3. Original ISPF Logic Model

A preliminary Logic Model (Figure 25) was developed by DSIT for the ISPF Business Case. This presented the objectives of the Fund, as well as planned inputs and activities, and the outputs, outcomes and impacts that these were expected to contribute to. This diagram needed to be reviewed, updated and further developed as part of the current study.

Figure 25 ISPF Original Logic Model



ISPF Business Case (2022)

B.4. Pathways to impacts

There are multiple routes (as well as feedback loops) through activities, outputs and outcomes that could support any of the areas of impact outlined in Section 4.3.5 of the main report. However, we have developed a series of **ToC sub-diagrams that highlight the main and most significant pathways for each of the six high level objectives and impact areas** (noting that other activities, outputs and outcomes may also have relevance). These diagrams and a summary narrative of the pathways are presented in the following pages.

Objective 1: International Partnerships with Impact

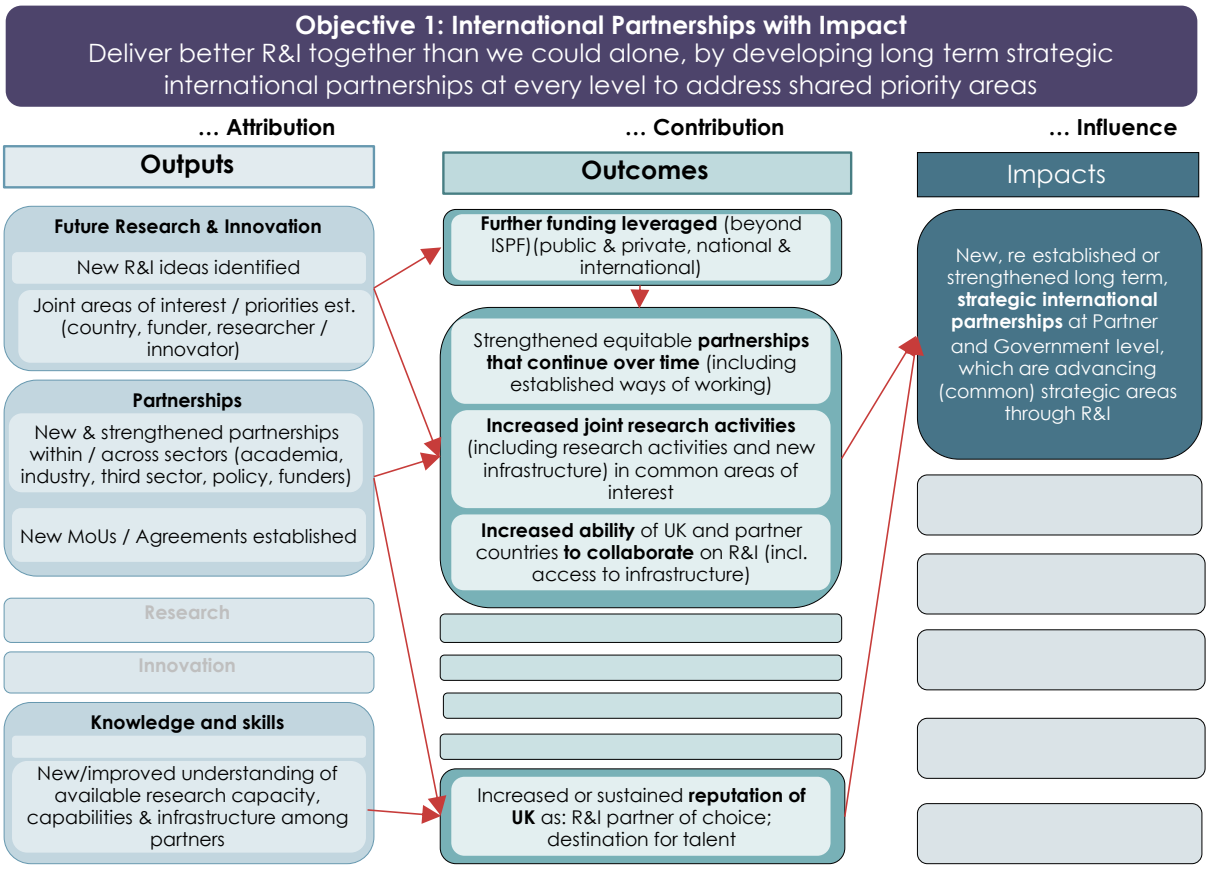
Figure 26 highlights the main pathways through the ISPF ToC diagram that relate to the 'international partnerships with impact' objective and the expected impact area of 'new, re-established or strengthened long-term strategic international partnerships at Partner- and Government-level, which are then advancing common strategic areas in R&I'.

ISPF has an objective to develop long-term strategic international partnerships at every level, which deliver better R&I, and address shared priority areas. Most programmes within the ISPF portfolio are expected to contribute towards this objective, in that they will involve different partnerships (at different levels, between different types of individual and organisation), that it is expected that the Fund will have helped to create or strengthen.

Some of these will generate immediate outputs in terms of new agreements, newly identified common areas of interest or priorities, and / or improvements to each partner's knowledge and understanding of the other (and of their capacity and capabilities).

Beyond ISPF, this is expected to lead to further possibilities for partnership and joint working in common areas of interest. The underlying assumption here is that ISPF will facilitate the establishment of these common areas of interest, an increased understanding and improved perceptions between parties, and improved abilities to work together. This strengthened partnership working will likely happen at different levels, but the Fund aims in the longer term to support more strategic funder or government-level partnerships for the UK that will help to advance common strategic areas through R&I, which will in turn create positive feedback loops, reinforcing the pathways discussed above around collaboration and partnerships.

Figure 26 Impact pathways (sub-ToC diagram) for ISPF Objective 1



Objective 2: Addressing Shared / Global Challenges

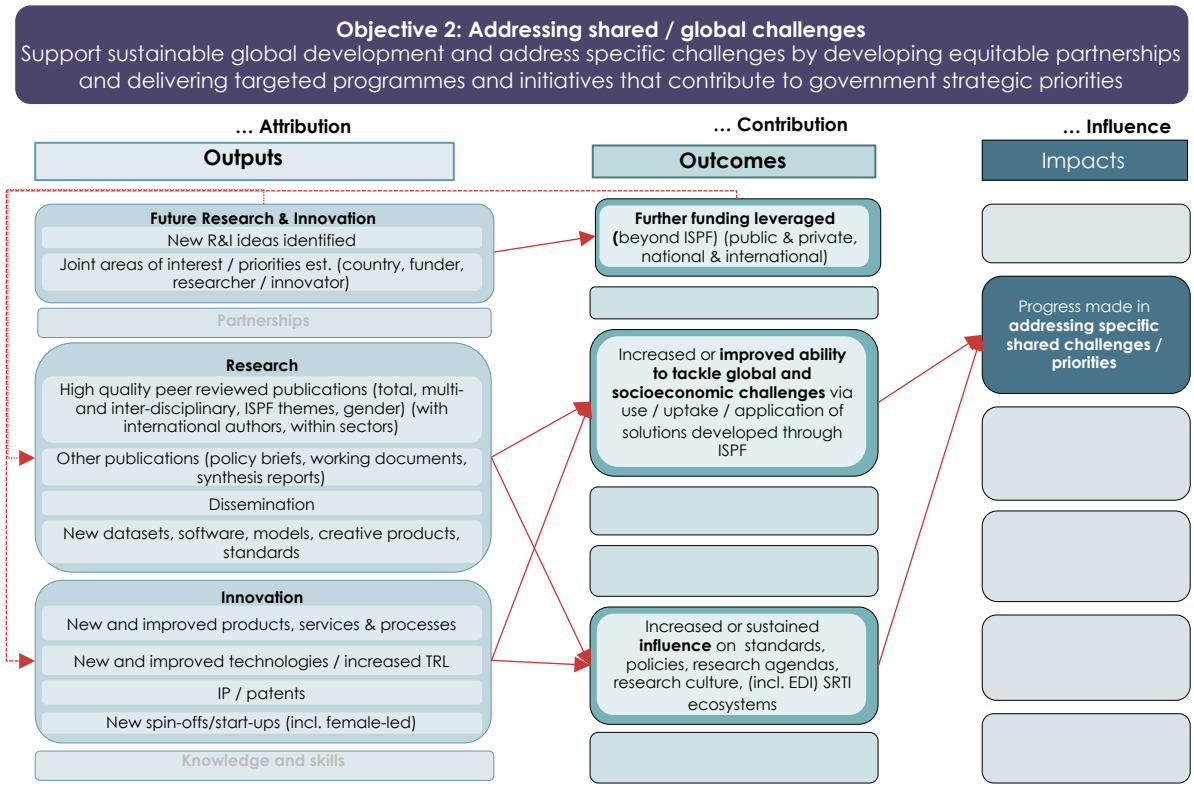
Figure 27 highlights the main pathways through the ISPF ToC diagram that relate to the 'addressing shared / global challenges' objective and the expected impact area of 'progress made towards addressing specific shared challenges and priorities.'

Most programmes within the ISPF portfolio are expected to contribute towards this objective, in that they should be aligned with one or more of the ISPF Themes (which are intended to reflect the major challenges facing the UK and its partners) and be designed and developed in partnership with other countries.

Many of the activities undertaken through these programmes will generate immediate outputs, such as publications, datasets and models or improved technologies, which will in some way respond to and address the challenges identified. The programme activities will likely also generate ideas for further follow-on work in related areas, which – if funding can be secured – will generate a new round of research and innovation addressing these same challenges (a positive feedback loop, as shown in the figure).

The outputs from ISPF programmes are expected to be taken-up, used or applied beyond the ISPF programmes (e.g. in influencing the development of new standards or policies, or through the creation of new products and services on the market), which will then contribute (alongside other efforts) towards tackling specific challenges. A key assumption here is that the R&I outputs are disseminated and accessible to relevant audiences and users, and a potential associated risk that IP, security or other concerns prevent access to outputs.

Figure 27 Impact pathway (sub-ToC diagram) for ISPF Objective 2



Objective 3: Enabling Potential

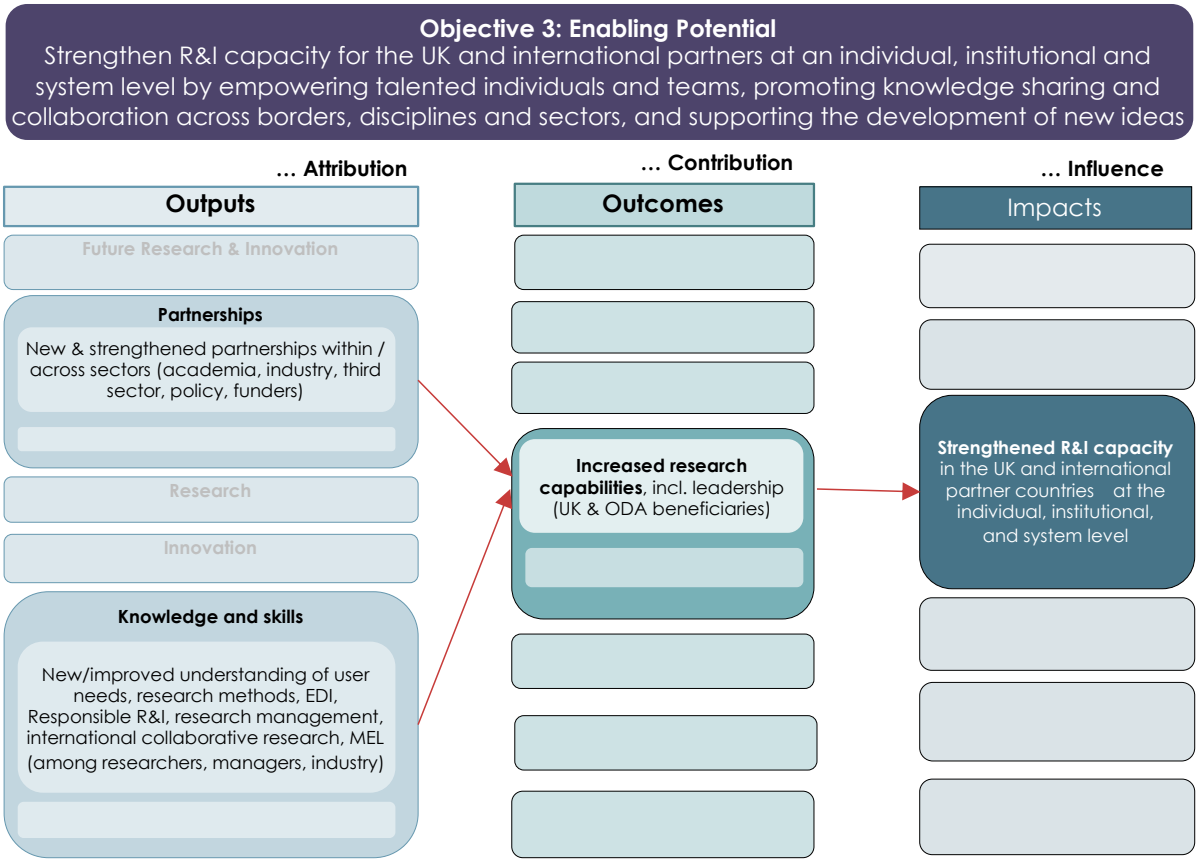
Figure 28 highlights the main pathways through the ISPF ToC diagram that relate to the 'enabling potential' objective and the expected impact area of 'strengthened R&I capabilities in the UK and in international partner countries, at the individual, institutional, and system level'.

Most programmes within the ISPF portfolio are expected to contribute towards this objective, in that they will involve different partnerships (at different levels, between different types of individual and organisation), that it is expected will share knowledge and understanding. Some activities will also be specifically targeted towards increasing knowledge, skills and understanding amongst different individuals and institutions.

As a direct output of the programmes, it is expected that new and strengthened international partnerships will emerge, at different levels and across different disciplines and sectors, that are better able to undertake research and innovation activities in future. Individuals will also have gained new skills and developed their knowledge and understanding in relation to undertaking research and innovation, engaging in international collaboration, and managing research.

Collectively these developments and improvements will help strengthen the capacity and capability of R&I systems, in the UK and overseas, creating positive feedback loops for further R&I endeavours and the outputs and outcomes resulting from these.

Figure 28 Impact pathway (sub-ToC diagram) for ISPF Objective 3



Objective 4: Collaborating at the Forefront of SRTI

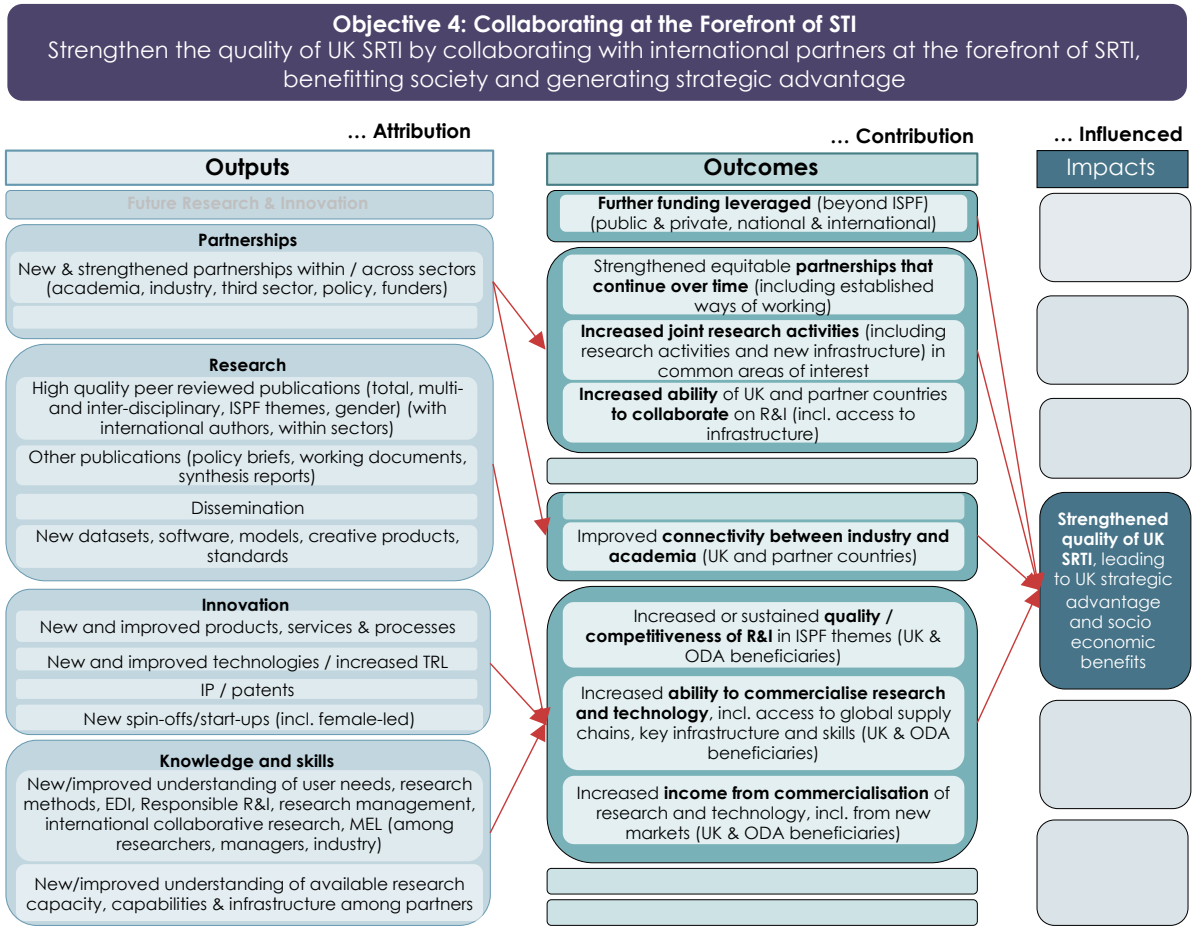
Figure 29 highlights the main pathways through the ISPF ToC diagram that relate to the 'collaborating at the forefront of SRTI' objective and the expected impact area of 'strengthened quality of SRTI, leading to strategic advantage and socio-economic benefits for both UK and ODA beneficiaries.'

Many programmes within the ISPF portfolio are expected to contribute towards this objective, with the various immediate benefits of the collaborative activities (partnership development, research and innovation outputs, knowledge and skill development), helping to increase and demonstrate the quality and competitiveness of SRTI within the UK and (ODA) partner countries, which in turn may help in the retention / attraction of talent, investment and R&I opportunities.

This is also expected to be built upon further after ISPF, as a consequence of the partnerships that have been established and strengthened through the ISPF Programmes, and the subsequent (increase in) joint activities undertaken through these partnerships as a result.

ISPF activities with a stronger innovation focus (e.g. business-led or translational research activities) are also expected to result in new and improved technologies, products and services (as well as associated IP), that can be exploited to generate commercial benefits (and wider socio-economic impact) for the UK and (ODA) partner countries.

Figure 29 Impact pathway (sub-ToC diagram) for ISPF Objective 4



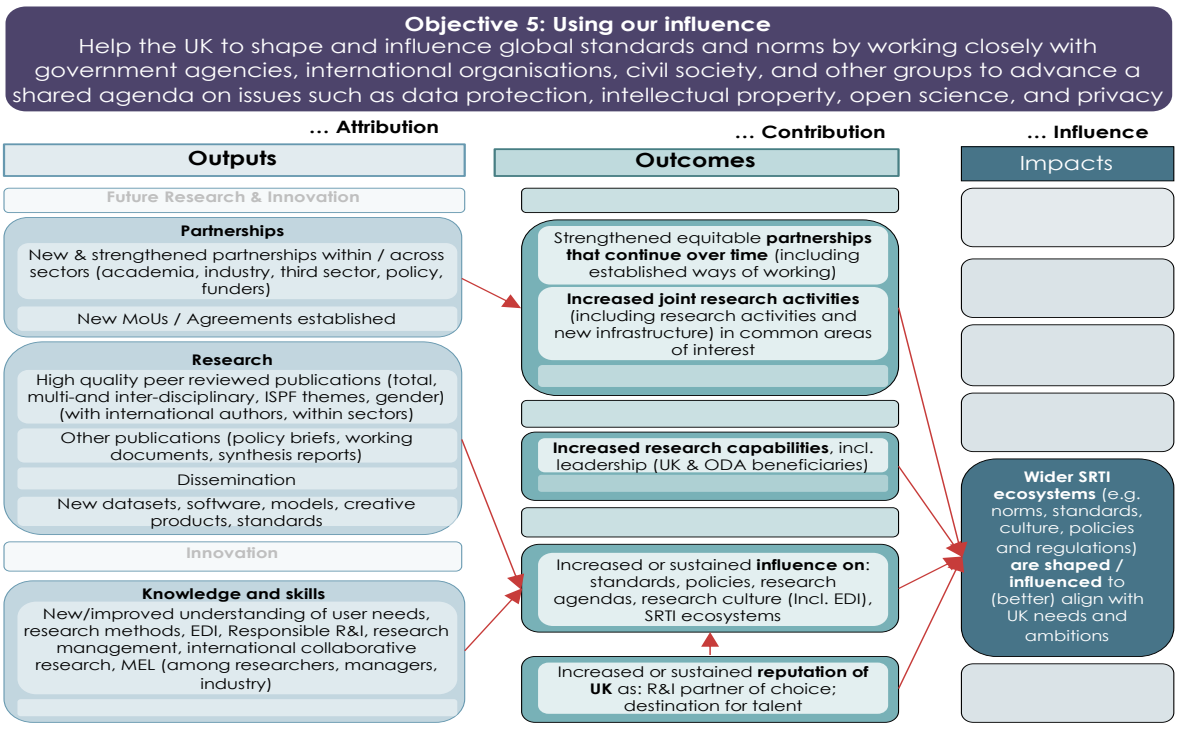
Objective 5: Using our Influence

Figure 30 highlights the main pathways through the ISPF ToC diagram that relate to the 'using our influence' objective and the expected impact area of 'shaping and influencing wider science, research, technology and innovation (SRTI) ecosystems, for example through norms, standards, culture, policies and regulations, to (better) align with UK needs and ambitions'.

ISPF programmes are expected to create a range of research outputs, including for instance publications that are tailored and targeted to different audiences (e.g. policy makers, research managers and funders). Some of these are expected to be taken up, used and applied in settings that mean they have an influence on wider SRTI ecosystems (e.g. through contributing to the development of standards, policies, rules and regulations). Such influence may also happen directly within the activities of ISPF, where particular types of partner (e.g. regulators are engaged, or where this is a particular focus of specific programmes and projects.

The new and strengthened partnerships (and associated agreements) that are an immediate result of ISPF, may also lead to greater influence on the future activities and ways of working of these partners, as well as further interaction and joint working with the UK (providing further opportunities for influence). Partnerships may involve individual researchers and innovators, but also research institutions, funders, policy makers and regulators who play important roles in the wider SRTI ecosystems of these countries. The increased proximity and interaction of the UK with these stakeholders is expected to exert some influence in terms of e.g. ways of working, or the focus of investment and SRTI activity (and its alignment with UK interests). This will be further supported by the increased reputation and perceptions of the UK and UK SRTI that are expected as an outcome of ISPF (and discussed further in the next pathway). The impact on SRTI ecosystems will have positive feedback loops in terms of the extent and effectiveness of future international collaborative R&I activities (through, for example, increased alignment of priorities and ways of working), as well as wider economic benefits (through, for instance, an improved ability to trade, invest, or collaborate across borders).

Figure 30 Impact pathway (sub-ToC diagram) for ISPF Objective 5



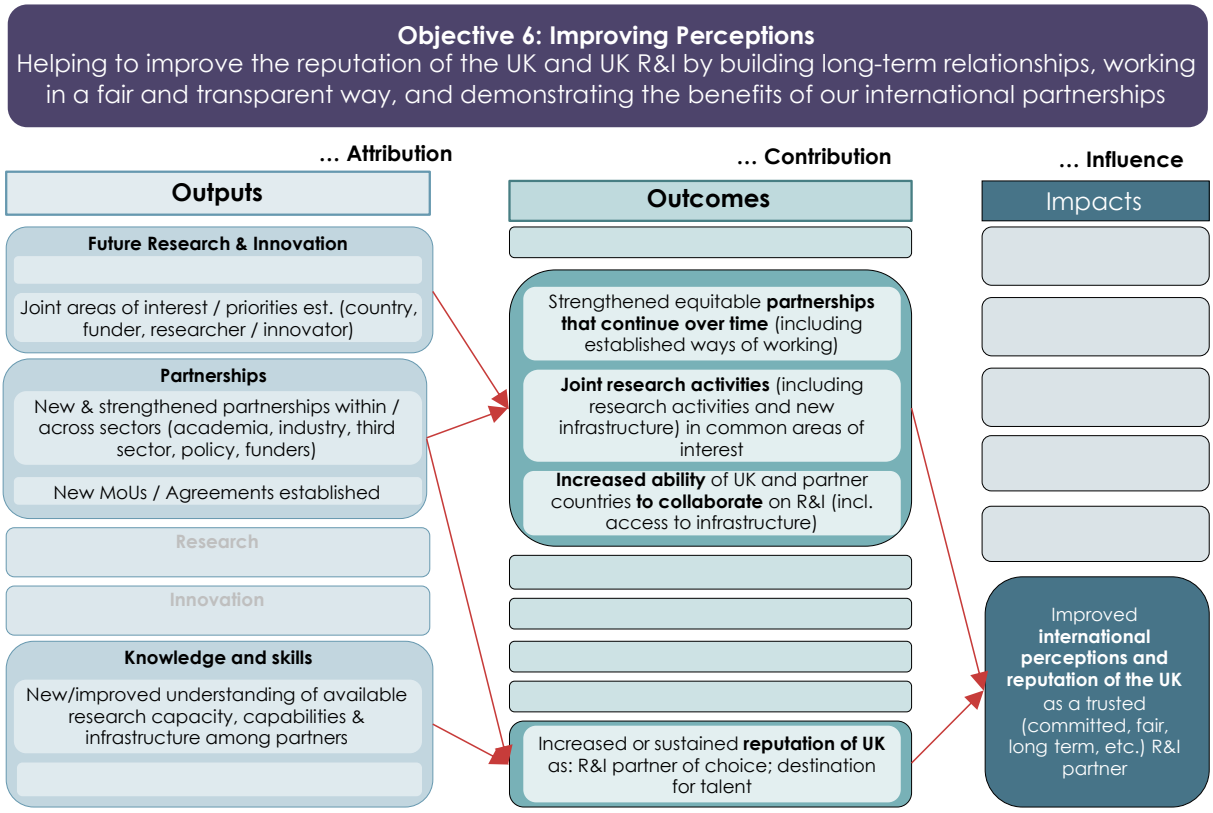
Objective 6: Improving Perceptions

Figure 31 highlights the main pathways through the ISPF ToC diagram that relate to the 'improving perceptions' objective and the expected impact area of 'improved international perceptions and reputation of the UK as a trusted (fair and committed) R&I partner'.

ISPF programmes are expected to involve international collaboration at various levels, resulting in the strengthening of these partnerships (or the establishment of new ones), as well as an improved knowledge and understanding of each other's capabilities and interests. The positive experience of collaborating with the UK is expected to help sustain, or increase the UK's reputation (and its SRTI institutions and communities), benefiting future international partnership working, interactions and influence (within SRTI and beyond), as well as helping to attract foreign direct investment (FDI) and talent.

ISPF partnerships are expected to continue in some form beyond the Fund, and be more likely to lead to further joint activities in future because of the more established ways of working, greater understanding and closer connections created through ISPF. These follow-up activities will further reinforce the positive benefits of ISPF in strengthening the reputation and perceptions of the UK as a trusted R&I partner of choice (with positive feedback loops for future collaboration) and an attractive destination for investment and for talent.

Figure 31 Impact pathway (sub-ToC diagram) for ISPF Objective 6



Appendix C ISPF portfolios of individual Partner Organisations

The following sub-sections present the ISPF portfolios for each of the individual Partner Organisations. Each follows the same structure, which includes:

- A brief introduction to the Partner Organisation
- A summary of key features of their ISPF portfolio (number of programmes, spend, awards, ODA/non-ODA split, coverage of ISPF Themes, and relevant activity types)
- A list of their ISPF programmes, with a summary narrative of the scope and focus of each
- An extract from the portfolio database, providing full details on all programmes and other delivery activities.

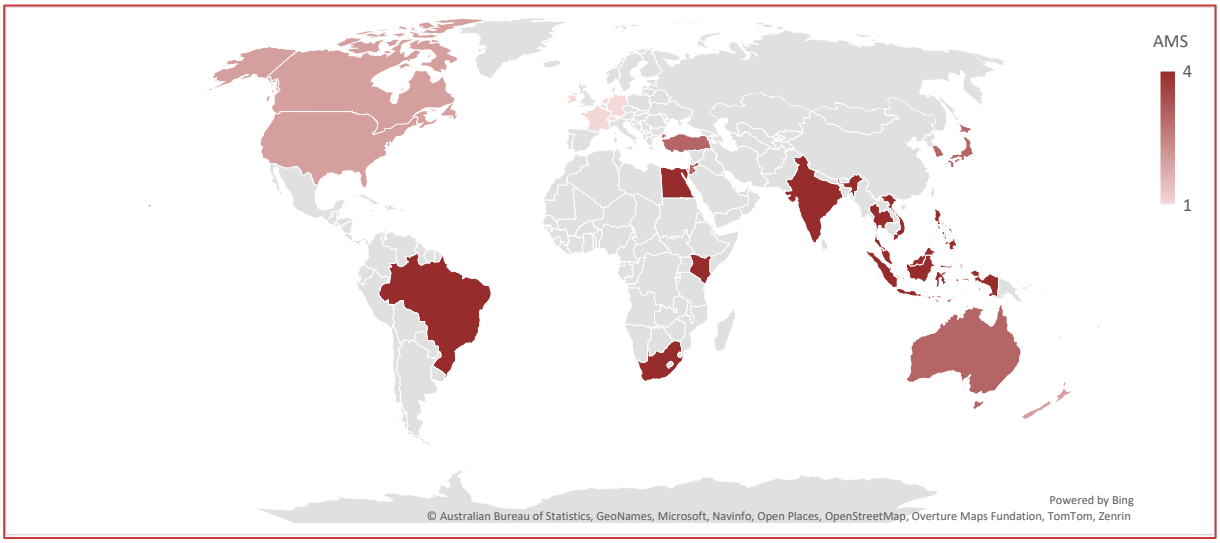
C.1. Academy of Medical Sciences (AMS)

C.1.1. AMS Portfolio Overview

The **Academy of Medical Sciences (AMS)** is one of the four UK National Academies, focused on the advancement of medical science to benefit society. It provides funding and mentoring for researchers, offers UK and international policy guidance, and hosts scientific meetings and workshops. The AMS consists of more than one thousand Ordinary and Honorary Fellows.

ISPF Allocation	AMS has an **ISPF allocation of £7.9m for 3 years** (3% of PO total), covering 9 programmes, plus delivery costs. ODA accounts for £5.0m and 6 programmes, non-ODA for £2.9m and 3.
Current Programmes	Currently (March 2024), AMS has a portfolio of **7 ISPF programmes** that are live or underway (according to Q4 2023/24 RODA data).
ISPF Awards	Awards have been made by 2 of these programmes (**55 awards made** in total).
ISPF Spend	**Past expenditure of £2.2m is already reported** across current programmes (excl. delivery costs), up to Q4 2023/24. A further £3.5m is forecast for these same programmes up to Q4 2024/25. £1.3m of past expenditure is through awards (59% of programme total).
ODA/Non-ODA focus	Within the current portfolio, 4 programmes are with **ODA countries** and 3 are with **non-ODA** countries. See figure below.
ISPF Themes	Current programmes are tagged against **2 ISPF Themes**: Healthy People, Animals & Plants (5 programmes) and Nurturing Tomorrow's Talent (4).
Activity Types	Current programmes most commonly include **networking and workshops** (100%), and **international collaborative academic research** (86%).

Figure 32 AMS – Number of current programmes by partner country



Source: Technopolis based on RODA and Allocations data

C.1.2. AMS Portfolio Detail

Table 23 AMS – List and summary details of each ISPF Programme

Programme	Summary details / activities
Bilateral Emerging Leaders Policy Project	This project will convene emerging leaders of the UK and another non-ODA country to develop key policy actions for both partner Academies and other national bodies on a global health priority. It will also develop a mechanism for the emerging leaders to continue to connect with cohorts in partner countries, so facilitating collaborations and sharing of expertise and knowledge. Specific activities will include some virtual and in-person workshops between emerging leaders and the production of a policy report. The first series will focus on climate change and health, in partnership with the US National Academy of Medicine. Future topics might include mental health or global health inequalities.
Global Policy Workshops (non-ODA part)	The programme will deliver three global health policy workshops per year, bringing together experts from the UK and non-ODA countries to address broad health research topics such as equality, diversity and inclusion, public and patient involvement, and decolonising health research, and explore these through a global health research lens. Working with in-country partners from non-ODA countries, we will develop a report with suggested next steps to influence global and national policies related to these challenges. The first events include a multilateral workshop on child health and wellbeing and the social determinates, and a workshop on Antimicrobial resistance in partnership with India.
Global Policy Workshops (ODA part)	Working with a partner Academy/organisation in LMICs on a topic of global health to: • Enable partners to consider how scientific evidence can help address global health challenges. • Convene experts and stakeholders to discuss challenges and barriers for research and policy on an area of need, and identify potential solutions and mechanisms to support action. • Build in-country capacity for tailored, local, impactful scientific policy.
Networking Awards / Grants (non-ODA)	Awards of up to £25,000 over one year to support collaborations between priority countries and to hold networking events aimed at addressing the priority themes identified for ISPF. The scheme would be a vehicle for researchers from across the disciplines to forge new links and generate innovative transdisciplinary research ideas. It's envisaged that these new networks will then be better positioned to compete for more substantive grants offered by future funding initiatives.
Networking Awards / Grants (ODA)	As above.
Clinical Research Pathways Policy	Scoping activities to inform the development of the clinical research pathways project. This will formulate final aims, objectives and structure of the project before evidence gathering and delivery. Evidence gathering will the explore clinical research pathways in ODA eligible countries to understand the pipeline for clinical researchers in each country; identify key stages in the development pathway to support clinical researchers; provide ideas for further improving and target key stages in the career pathway to ensure diverse researchers continue on and contribute to excellent clinical research.
International Career Development Programme	The programme will initially focus on identifying and fostering best practice in supporting and connecting emerging research leaders across the health sciences sector (clinical, non-clinical, industry). Topics discussed and resources developed will be around wider leadership and entrepreneurship training and building supportive cohorts. The second year will then focus on connecting UK cohorts with international emerging leaders to exchange knowledge, foster collaborations and extend networks within life sciences.
Networking Awardees and Alumni	This programme will provide networking activities for a growing cohort of ISPF ODA-funded awardees and alumni. We will create resources and tools on our awardee and alumni portals (PILLAR and HIVE), and create online meeting rooms and events for networking on particular topics, as well as hybrid and in-person meetings for small groups. These activities will help create peer support among communities, new collaborations and applications for follow-on activities and funding. We also expect that new multi-lateral formations will organically grow, providing additional routes for working and influencing.
Network Strengthening Grants	This funding will be available to previous recipients of the Academy's GCRF Networking scheme, who have a lead applicant based in one of the ISPF ODA-priority countries, or in a Least Developed Country. The awards will enable recipients to maintain their collaborative networks and to undertake related research projects – for which they may have obtained pilot data for during their initial GCRF Networking award. As the GCRF Networking scheme was ODA funded and designed to address the Global Challenges, the collaborations supported via Team Science Accelerator Awards shall also be ODA-eligible in nature. Networks will receive £200k over a 2 year period. Due to the cross-Academy nature of the GCRF Networking scheme, these Accelerator awards will be a cross-discipline endeavour, welcoming applications from the remits of all four UK National Academies.

Source: Technopolis based on RODA and POs input, 2024

Table 24 AMS – Full portfolio

ODA / NON-ODA	Programme Title	Allocation (2022/23 - 2024/25)	ISPF themes	Supported Types of Activity									Awards made	Spend Underway?	Total Expenditure (programme + award)	Total Forecast Expenditure (programme + award)	ODA partner countries	Non-ODA partner countries
				International Collaborative Academic	Translational Research & Impact Realisation	International mobility (incl. fellowships,	Institutional R&I capacity building	International Collaborative Business-Investment in & access to infrastructure / facilities	Pump-priming	Networking and workshops	Primary Activity Type							
Non-ODA	Bilateral Emerging Leaders Policy Project	£500,000.00	Healthy People, Animals & Plants	☑	☐	☐	☐	☐	☐	☐	☑	International Collaborative Academic Research		Yes	£ 159,334	£300,000		AU; JP; KR; US
Non-ODA	Global Policy Workshops **(non-ODA Part)**	£860,000.00	Healthy People, Animals & Plants	☑	☐	☐	☑	☐	☐	☐	☑	Networking and workshops		Yes	£ 380,000	£480,000		AU; CA; IL; JP; NZ; SG; KR
Non-ODA	Networking Awards / Grants **(non-ODA Part)**	£1,250,000.00	Tomorrow's Talent	☑	☐	☐	☐	☐	☐	☑	☑	International Collaborative Academic Research	25	Yes	£ 564,730	£625,000		AU; CA; FR; DE; IN ; IE; IL; JP; NL; NZ; SG; KR; CH; TW; US
Non-ODA	Delivery Costs (for non-ODA)	£310,300.00												Delivery	£ 76,811	£162,538		None
ODA	Clinical Research Pathways Policy	£689,700.00	Healthy People, Animals & Plants | Tomorrow's Talent	☑	☐	☐	☑	☐	☐	☐	☑	Institutional R&I capacity building		Yes	£ 186,737	£500,000	BR; EG; ID; JO; MY; TR; TH; VN; PH; ZA; KE; LDCs	
ODA	Global Policy Workshops **(ODA Part)**	£603,200.00	Healthy People, Animals & Plants	☑	☐	☐	☑	☐	☐	☐	☑	Networking and workshops		Yes	£ 130,964	£450,000	BR; EG; ID; KE; MY; PH; ZA; TH; VN; LDCs	
ODA	International Career Development Programme	£680,473.00	Healthy People, Animals & Plants | Tomorrow's Talent	☐	☐	☐	☐	☐	☐	☑	☑	Networking and workshops		Yes	£ 44,111	£542,567	BR; EG; ID; JO; KE; MY; PH; ZA; TH; TR; VN	
ODA	Networking Awardees and Alumni	£139,350.00	Healthy People, Animals & Plants | Tomorrow's Talent	☐	☐	☐	☐	☑	☐	☐	☑	Networking and workshops		No	£ -	£94,156	BR; EG; ID; JO; MY; TR; TH; VN; PH; ZA; KE; LDCs	
ODA	Networking Awards / Grants **(ODA Part)**	£1,250,000.00	Tomorrow's Talent	☑	☐	☐	☐	☐	☐	☑	☑	International Collaborative Academic Research	3	Yes	£ 735,267	£625,000	BR; EG; ID; JO; KE; MY; PH; ZA; TH; TR; VN; LDCs	
ODA	Network Strengthening Grants / Team Science Accelerator	£1,000,000.00	Healthy People, Animals & Plants	☑	☐	☐	☑	☐	☐	☐	☑	International Collaborative Academic Research		No	£ -	£1,000,000	BR; EG; ID; JO; KE; MY; PH; ZA; TH; TR; VN; LDCs	
ODA	Delivery Costs (for ODA)	£628,551.00												Delivery	£ 108,981	£380,440		

Source: Technopolis based on RODA, Allocations Data and PO input, 2024

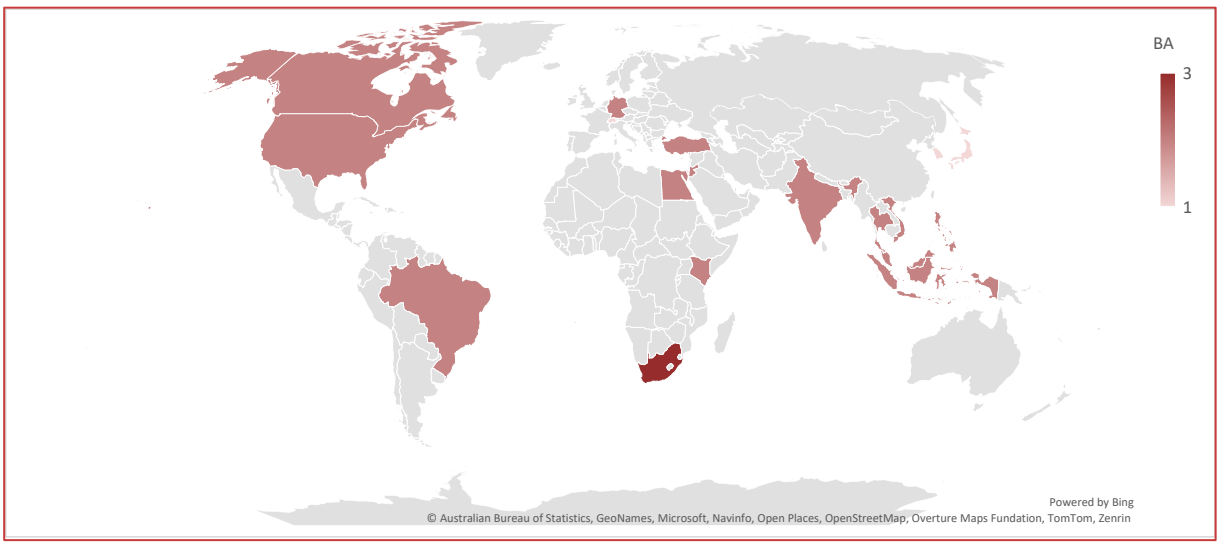
C.2. British Academy (BA)

C.2.1. BA Portfolio Overview

The **British Academy (BA)** is one of the four UK National Academies, focused on research in the humanities and social sciences. Its activities include funding UK and international research, engaging the public through events and other formats, and providing insight for influencing policy. The organisation consists of more than 1,700 Fellows.

ISPF Allocation	The BA has an **ISPF allocation of £40.2m for 3 years** (14% of PO total), covering 9 programmes, plus delivery costs. ODA accounts for £36.2m and 6 programmes, non-ODA for £4.0m and 3.
Current Programmes	Currently (March 2024), the BA has a portfolio of **6 ISPF programmes** that are live or underway (according to Q4 2023/24 RODA data).
ISPF Awards	Awards have been made by 5 of these programmes (**68 awards made** in total).
ISPF Spend	**Past expenditure of £7.4m is already reported** across current programmes (excl. delivery costs), up to Q4 2023/24. A further £8.0m is forecast for these same programmes up to Q4 2024/25. £7.0m of past expenditure is through awards (95% of programme total).
ODA/Non-ODA focus	Within the current live portfolio, 3 programmes are with **ODA countries** and 3 are with **non-ODA** countries. See figure below.
ISPF Themes	Current programmes are tagged against **2 ISPF Themes**: Nurturing Tomorrow's Talent (6 programmes) and Transformative Technologies (1).
Activity Types	Current programmes most commonly include **international collaborative academic research** (83%),**translational research & impact realisation** (67%).

Figure 33 BA – Number of current programmes by partner country



Source: Technopolis based on RODA and Allocations data

C.2.2. BA Portfolio Detail

Table 25 BA – List and summary details of each ISPF Programme

Programme	Summary details / activities
Challenge-oriented Research Grants	This programme supports proposals from researchers based in the UK, Brazil, Egypt, Indonesia, Jordan, Kenya, Malaysia, Philippines, South Africa, Turkey, Thailand, Vietnam and/or Least Developed Countries in the areas of: antimicrobial resistance; culture, heritage and climate action; environmental resilience and climate action; climate change mitigation and adaptation led by Indigenous peoples and local communities; pandemic preparedness; power and voice in climate action; societal challenges and approaches to responsible technologies; social determinants of health; and women and climate action. The Academy envisages awards will: • Provide opportunities for researchers to develop and deepen international collaborations • Advance the research field, knowledge exchange, practice and/or policy development • Develop ways of communicating and collaborating in cross-disciplinary & multilingual working
Global Innovation Fellowships (ODA Part)	The objective of the fellowships is to embed UK-based early- and mid-career researchers to develop their skills, networks and careers in the creative and cultural, public, private and policy sectors in ISPF priority countries and LDCs to address challenges that require innovative approaches and solutions. This will help create new and deeper links beyond academia, so enabling knowledge mobilisation and translation, as well as individual skills development. The aim is mutually beneficial partnership between award holder and organisation, with each able to take advantage of fresh perspectives and expand their networks and reach. Fellowships are for one-year. Two calls are planned.
International Writing Workshops	These awards are aimed at early career researchers in selected countries, working to stimulate professional networks, develop partnerships, encourage skills development, provide advice on career development and promote uptake of research emanating from LMICs.
Knowledge Systems Strengthening & Equitable Partnerships	Several activities related to Knowledge Systems Strengthening and Equitable Partnerships: • Knowledge Systems Strengthening: This funding will provide awards to support knowledge systems strengthening activities in ISPF priority countries and LDCs. The grants will enable institutions and researchers in those locations to undertake activity to support institutional capacity building, build communities and networks, and invest in individuals. • Evidence Use in Policymaking Skills Development Grants: The Academy will support awards to develop skills to promote uptake of research evidence in ISPF priority countries and LDCs. The grants will support activity for researchers and organisations to learn how policymaking works, build skills to design evidence to maximise its influence on specific audiences, and develop understanding of how to design and use strategies to present evidence in changing contexts. • Research Office Skills Development & Collaboration Grants: The Academy would support awards to develop skills and collaboration between UK-based organisations' research offices and those in ISPF priority countries and LDCs.
ODA International Interdisciplinary Research Projects	This funding is focused on enabling UK-based early career researchers to work with early career researchers in selected countries. The purpose of each project will be to develop new international interdisciplinary research in the humanities and social sciences that is ODA-eligible. Research may be problem-focused, creatively innovative and exploratory, and should bring together relevant disciplines in the humanities and social sciences, where appropriate, for maximum impact/effect.
UK-South African Bilateral Research Chair	This Chair in Digital Humanities will play a key role in building capacity; creating networks; and creating intellectual agendas, a multivalent humanistic platform, grounded outreach, and new modes of material engagement and interpretative frameworks.
CIFAR Research Programmes	To support ambitious research by bringing together an internationally-convened and highly interdisciplinary body of researchers. To have novel exchange of ideas and co-creation of knowledge with wider stakeholders to catalyse change.
Global Innovation Fellowships (non-ODA Part)	To provide opportunities for international partnerships to influence policy and understand contexts and perspectives beyond the UK in partner countries in key areas through embedding UK researchers overseas who are able to engage directly with their counterparts.
Knowledge Frontiers: International Interdisciplinary Research Projects	Opportunities for researchers to tackle global challenges through new conceptual explorations, genuine interdisciplinarity, and collaborative work that extends beyond standard research models. To provide opportunities for UK-based researchers to work with partners to shape research agendas that will influence policy, innovation and practice, as well as working with local communities

Source: Technopolis based on RODA and POs input, 2024

Table 26 BA – Full portfolio

ODA / NON-ODA	Programme Title	Allocation (2022/23 - 2024/25)	ISPF themes	Supported Types of Activity									Awards made	Spend Underway?	Total Expenditure (programme + award)	Total Forecast Expenditure (programme + award)	ODA partner countries	Non-ODA partner countries
				International Collaborative Academic	Translational Research & Impact Realisation	International mobility (incl. fellowships,	Institutional R&I capacity building	International Collaborative Business-	Investment in & access to infrastructure / facilities	Pump-priming	Networking and workshops	Primary Activity Type						
ODA	Challenge-oriented Research Grants	£10,343,318.00	Resilient Planet | Transformative Technologies | Healthy People, Animals & Plants | Tomorrow's Talent	☑	☑	☐	☑	☐	☐	☐	☐	International Collaborative Academic Research		No	£ -	£10,343,318	BR; EG; ID; JO; KE; MY; PH; ZA; TH; TR; VN; LDCs	
ODA	Global Innovation Fellowships **(ODA Part)**	£6,000,000.00	Tomorrow's Talent	☑	☑	☑	☐	☐	☐	☐	☑	International Collaborative Academic Research		No	£ -	£6,000,000	BR; EG; ID; JO; KE; MY; PH; ZA; TH; TR; VN; LDCs	
ODA	International Writing Workshops	£2,154,760.00	Tomorrow's Talent	☐	☐	☐	☐	☐	☐	☐	☑	Networking and workshops	29	Yes	£ 851,629	£1,300,000	BR; EG; ID; JO; KE; MY; PH; ZA; TH; TR; VN; LDCs	
ODA	Knowledge Systems Strengthening & Equitable Partnerships	£5,500,000.00	Tomorrow's Talent	☑	☑	☐	☑	☐	☐	☐	☑	Institutional R&I capacity building		No	£ -	£5,500,000	BR; EG; ID; JO; KE; MY; PH; ZA; TH; TR; VN; LDCs	
ODA	ODA International Interdisciplinary Research Projects	£8,685,077.00	Tomorrow's Talent	☑	☑	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research	28	Yes	£ 4,768,208	£3,920,000	BR; EG; ID; JO; KE; MY; PH; ZA; TH; TR; VN; LDCs	
ODA	UK-South African Bilateral Research Chair	£800,000.00	Transformative Technologies | Tomorrow's Talent	☑	☐	☑	☑	☐	☐	☐	☑	International Collaborative Academic Research		Yes	£ 400,000	£400,000	ZA	
ODA	Delivery Costs (for ODA)	£2,747,536.00												Delivery	£ 503,673	£2,243,863		
Non-ODA	CIFAR Research Programmes	£1,000,000.00	Tomorrow's Talent	☑	☑	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research	1	Yes	£ 500,000	£500,000		CA
Non-ODA	Global Innovation Fellowships **(non-ODA Part)**	£1,200,000.00	Tomorrow's Talent	☑	☑	☑	☐	☐	☐	☐	☑	International Collaborative Academic Research	4	Yes	£ 599,888	£600,000		US; IN ; SG; DE
Non-ODA	Knowledge Frontiers: International Interdisciplinary Research Projects	£1,600,000.00	Tomorrow's Talent	☑	☑	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research	6	Yes	£ 300,112	£1,279,451		CA; DE; IN ; IL; JP; KR; CH; US
Non-ODA	Delivery Costs (for non-ODA)	£200,000.00												Delivery	£ 100,000	£100,000		

Source: Technopolis based on RODA and POs input, 2024

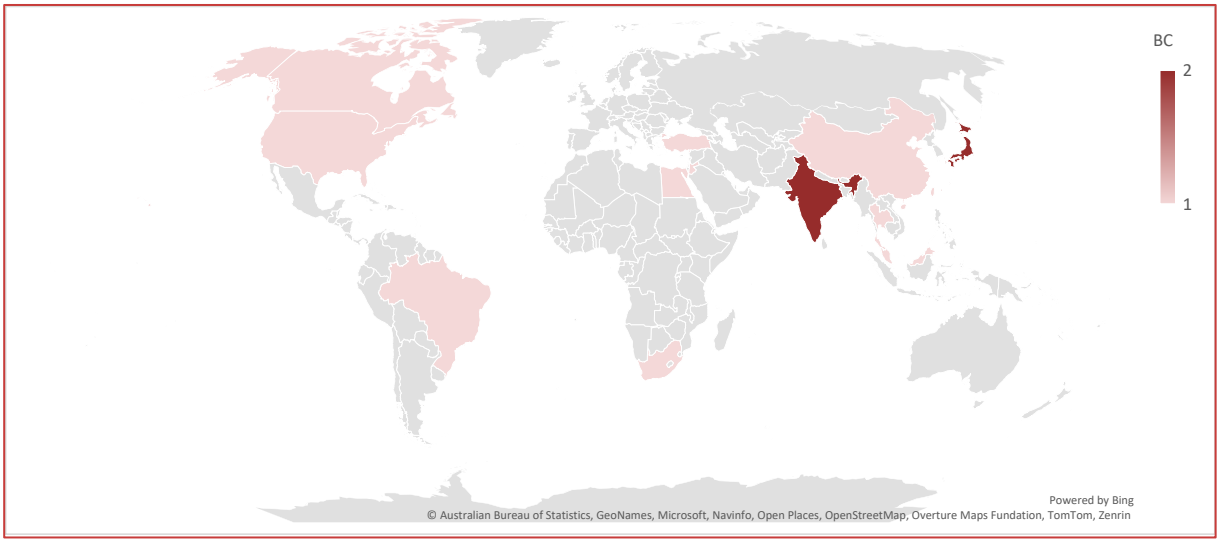
C.3. British Council (BC)

C.3.1. BC Portfolio Overview

The **British Council (BC)** is an organisation focused on promoting cultural relations, educational opportunities and the English language worldwide. They provide teaching and assessments, and collaborative events in the arts and education. They operate in more than 100 countries.

ISPF Allocation	The BC has an **ISPF allocation of £22.8m for 3 years** (8% of PO total), covering 12 programmes, plus delivery costs. ODA accounts for £18.3m and 8 programmes, non-ODA for £4.6m and 4.
Current Programmes	Currently (March 2024), the BC has a portfolio of **5 ISPF programmes** that are live or underway (according to Q4 2023/24 RODA data).
ISPF Awards	Awards have been made by 3 of these programmes (**21 awards** in total).
ISPF Spend	**Past expenditure of £2.6m is already reported** across current programmes (excl. delivery costs), up to Q4 2023/24. A further £3.4m is forecast for these same programmes up to Q4 2024/25. £2.2m of past expenditure is through awards (85% of programme total).
ODA/Non-ODA focus	Within the current portfolio, 3 programmes are with **ODA countries** and 2 are with **non-ODA** countries. See figure below.
ISPF Themes	Current programmes are tagged against **3 ISPF Themes**: Resilient Planet (4 programmes), Healthy People, Animals & Plants (2) and Nurturing Tomorrow's Talent (2).
Activity Types	Current programmes most commonly include **international collaborative academic research** (100%), **networking and workshops** (40%), and **institutional R&I capacity building** (40%).

Figure 34 BC – Number of current programmes by partner country



Source: Technopolis based on RODA and Allocations data

C.3.2. BC Portfolio Detail

Table 27 BC – List and summary details of each ISPF Programme

Programme	Summary details / activities
Amazonia Brazil/UK	Programme objectives: Identification of concrete research challenges in the Legal Amazon; Financing of mission-oriented research; Strengthening of regional and intra-regional ST&I infrastructure; Funding collaborative research with the involvement of local actors; Mobilizing local researchers and partners; Integrating scientific and traditional knowledge; Engaging the local community; Giving practical knowledge back to communities; Communicating results.
Convening for strategic collaboration: the ISPF Kenya Collaborative	Kenya strategic collaborative programmes 2023-25
Country-specific approaches to Research Capacity Strengthening	Professional Development Programmes for policy makers or future leaders in research and science. Comprehensive research to assess the current situation, policies, stakeholders, and capacity gaps. Recommendations will be provided for enhancing Translational Research Partnerships through a collaborative, multi-stakeholder approach.
Gender Equality and Inclusion Programme (ODA part)	The ISPF Fellowships Scheme provides gender focussed funding for early career researchers. Its objectives are: to provide the researchers with a foundation to launch their careers in research and innovation; and to widen participation by increasing the number of opportunities for researchers including those whose backgrounds are underrepresented in their research field, and who have not yet held a full-time research-related post or academic post with a research specific element. The scheme will have a focus on inclusivity.
Gender Equality and Inclusion Programme (non-ODA part)	As above
Online/Digital Research Capacity Strengthening	An online global capacity strengthening programme with content designed and delivered by UK and partner country universities working together. Researchers will benefit from training enhancing their technical skills as well as from mentoring opportunities. UK Universities will expand their connections and partnerships with institutions in participating countries.
Research Capacity Strengthening - global programmes	The programme will fund bilateral/multilateral partnerships promoting knowledge exchange and access to new research environments to enhance the quality of UK and partner countries' research and innovation environments. Institutions will identity common capacity challenges, priorities, and solutions. Engagement with the commercial and innovation sector will be encouraged. Activities might include 1) training programmes for researchers, administrators, policy makers, 2) enhanced capacity of technology transfer offices in universities, 3) sharing of knowledge and good practice; 4) initiatives addressing gender inequality in science.
Research Collaboration Global Programmes (ODA part)	Providing small scale seed funding for collaboration between the UK and other countries to: Initiate new research and innovation collaborations between academic groups, departments, and institutions in partner countries and the UK; Develop existing collaborations at group, departmental, and institutional level; Encourage collaboration with non-academic organisations and individuals to support the exchange of expertise and translation of research knowledge into tangible benefits; Establish local hubs for UK- partner country activity in a particular area, enabling engagement from the wider research and innovation community.
Research Collaboration Global Programmes (non-ODA part)	As above
South Africa Programmes x4	Research collaboration, innovation and capacity strengthening programmes: University Staff Development Programme; Research Chairs Initiative; Science Entrepreneurship Programme; Systems Analysis Centre Programme.
Research Collaboration and Mobility: Green Industrial Revolution	Multinational academic workshops (Researcher Links Challenge Grants) and policy dialogues (Policy Dialogue Enabling Grants), gradually building up to collaborative research projects (Competitive International Research Grants) that take an evidence-based approach to influence policy and take responsible and collective action to environmental challenges.
UK / Israel Research Collaboration	UK-Israel Research Collaboration programmes 2023 - 2025.

Source: Technopolis based on RODA and POs input, 2024

Table 28 BC – Full portfolio

ODA / NON-ODA	Programme Title	Allocation (2022/23 - 2024/25)	ISPF themes	Supported Types of Activity: International Collaborative Academic	Translational Research & Impact Realisation	International mobility (incl. fellowships,	Institutional R&I capacity building	International Collaborative Business-	Investment in & access to infrastructure / facilities	Pump-priming	Networking and workshops	Primary Activity Type	Awards made	Spend Underway?	Total Expenditure (programme + award)	Total Forecast Expenditure (programme + award)	ODA partner countries	Non-ODA partner countries
ODA	Amazonia Brazil/UK	£1,553,953.32	Resilient Planet	☑	☐	☑	☐	☐	☐	☐	☑	International Collaborative Academic Research	12	Yes	£ 733,074	£820,879	BR	
ODA	Convening for strategic collaboration: the ISPF Kenya Collaborative	£165,000.00	Resilient Planet | Transformative Technologies	☐	☐	☐	☐	☐	☐	☐	☑	Networking and workshops		No	£ -	£165,000	KE	
ODA	Country-specific approaches to Research Capacity Strengthening	£346,600.00	Resilient Planet | Transformative Technologies	☑	☐	☑	☐	☑	☐	☐	☑	International Collaborative Business-led RD&D		No	£ -	£346,600	EG; ID; MY; PH; TH; TR; VN; LDCs	
ODA	Gender Equality and Inclusion Programme **(ODA part)**	£1,460,800.00	Resilient Planet | Transformative Technologies	☑	☐	☑	☐	☐	☐	☐	☐	International mobility (incl. fellowshops, secondments)	6	Yes	£ 943,995	£770,600	EG; MY; TR; JO; TH	
ODA	Online/Digital Research Capacity Strengthening	£200,000.00	Resilient Planet | Transformative Technologies	☐	☐	☐	☑	☐	☐	☐	☐	Institutional R&I capacity building		No	£ -	£200,000	EG; MY; TR; JO; BR	
ODA	Research Capacity Strengthening - global programmes	£1,296,000.00	Tomorrow's Talent	☐	☐	☐	☑	☐	☐	☐	☑	Institutional R&I capacity building		No	£ -	£1,296,000	ID; EG; TR; JO; MY	
ODA	Research Collaboration Global Programmes **(ODA part)**	£10,720,000.00	Resilient Planet | Transformative Technologies	☑	☑	☑	☑	☐	☐	☑	☐	International Collaborative Academic Research		No	£ -	£10,346,091	BR; MY; PH; ID; TR; EG; KE; TH; VN	
ODA	South Africa Programmes	£1,156,000.00	Resilient Planet | Transformative Technologies	☑	☐	☐	☑	☐	☐	☑	☐	Institutional R&I capacity building		Yes	£ 250,739	£746,430	ZA; LDCs	
ODA	Delivery Costs (all ODA)	£1,363,304.00												Delivery	£ 466,349	£782,187		
Non-ODA	Gender Equality and Inclusion Programme **(non-ODA part)**	£894,816.00	Tomorrow's Talent	☑	☐	☑	☐	☐	☐	☐	☐	International mobility (incl. fellowshops, secondments)	3	Yes	£ 534,816	£360,000		IN ; JP; TW
Non-ODA	Research Collaboration and Mobility: Green Industrial Revolution	£867,000.00	Resilient Planet | Tomorrow's Talent	☑	☑	☐	☑	☐	☐	☐	☑	Networking and workshops		Yes	£ 132,288	£705,000		CA; CN; IN ; JP; US
Non-ODA	Research Collaboration Global Programme **(non-ODA part)**	£1,183,458.00	Transformative Technologies	☑	☑	☑	☑	☐	☐	☑	☐	International Collaborative Academic Research	6	No	£ -	£1,008,000		JP
Non-ODA	Delivery Costs (all non-ODA)	£808,551.00												Delivery	£ 277,830	£465,551		None
Non-ODA	UK / Israel Research Collaboration	£720,000.00	Tomorrow's Talent	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research		No	£ -	£720,000		IL
Non-ODA	Delivery Costs (UK-Israel Research Collaboration)	£89,547.00												Delivery	£ 23,932	£60,057		IL

Source: Technopolis based on RODA and POs input, 2024

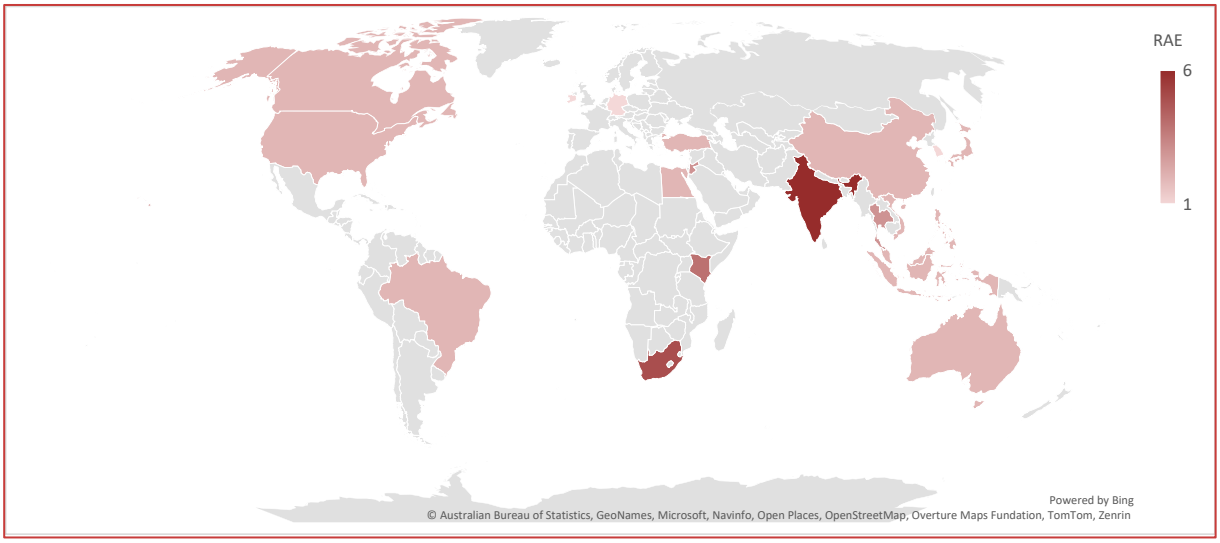
C.4. Royal Academy of Engineering (RAEng)

C.4.1. RAEng Portfolio Overview

The **Royal Academy of Engineering (RAEng)** is one of the four UK National Academies, focused on research in engineering and technology. It funds research through UK and international grants and prizes, influences education and engineering policy, and provides resources and training to engage students in science, technology, engineering and mathematics (STEM).

ISPF Allocation	The RAEng has an **ISPF allocation of £12.9m for 3 years** (5% of PO total), covering 11 programmes, plus delivery costs. ODA accounts for £8.7m and 5 programmes, non-ODA for £4.2m and 6.
Current Programmes	Currently (March 2024), the RAEng has a portfolio of **10 ISPF programmes** that are live or underway (according to Q4 2023/24 RODA data).
ISPF Awards	Awards have been made by 8 of these programmes (**90 awards** in total).
ISPF Spend	**Past expenditure of £4.6m is already reported** across current programmes (excl. delivery costs), up to Q4 2023/24. A further £7.0m is forecast for these same programmes up to Q4 2024/25. £1.3m of past expenditure is through awards (29% of programme total).
ODA/Non-ODA focus	Within the current portfolio, 5 programmes are with **ODA countries** and 5 are with **non-ODA** countries. See figure below.
ISPF Themes	Current programmes are tagged against all **4 ISPF Themes**: Nurturing Tomorrow's Talent (9 programmes), Resilient Planet (8), Transformative Technologies (7), and Healthy People, Animals & Plants (7).
Activity Types	Current programmes most commonly include **networking and workshops** (100%), and **translational research & impact realisation** (80%).

Figure 35 RAEng – Number of current programmes by partner country



Source: Technopolis based on RODA and Allocations data

C.4.2. RAEng Portfolio Detail

Table 29 RAEng – List and summary details of each ISPF Programme

Programme	Summary details / activities
Africa Catalyst	The aim of Africa Catalyst is to strengthen professional engineering bodies in sub-Saharan Africa so that they can effectively promote the profession, share best practise and increase local engineering capacity, to help drive development.
Frontiers (ODA part)	Connects and empowers enthusiastic researchers, innovators and practitioners from the UK and around the world to work together on new ways to solve complex global development challenges. By stimulating collaboration and interdisciplinary thinking, it aims to catalyse creative solutions that deliver impact and build a lasting global community, equipped to achieve a sustainable and inclusive society. The challenge focus of each symposium is selected in collaboration with co-chairs from the UK and partner country to ensure it is appropriate for the local context. Research projects that come out of the symposia are focussed to be equitable partnerships that tackle local challenges. The Frontiers programme aims to achieve an interdisciplinary and international community of early- and mid- career researchers/ innovators/ practitioners who are better able to work together to tackle global challenges and progress towards the SDGs, who share insights and knowledge and exchange best practice around the world.
Frontiers (non-ODA part)	As above
Higher Education Partnerships in Sub-Saharan Africa	By forming and strengthening relationships between academia and industry, the programme aims to ensure that the higher education system in sub-Saharan Africa produces engineers with the skills and knowledge required to meet the needs of industry, tackle local challenges, address the engineering skills shortage, and to showcase engineering's role in driving economic development in the region.
Leaders in Innovation Fellowships (ODA Part)	LIF programme builds the entrepreneurial capacity of researchers and innovators to commercialise innovations aimed at addressing social and economic challenges. The programme creates international networks of innovators and technology entrepreneurs. It includes grants for training, mentoring and events.
Leaders in Innovation Fellowships (non-ODA part)	As above
Transforming Systems Through Partnership (ODA Part)	Funding for industry-academia research partnerships between universities, large companies, SMEs and start-ups in the UK and partner countries, with the objectives of: Collaboration and knowledge exchange on shared challenges; Enhanced collaboration between industry and academia; Industry input to engineering curricula; Application-inspired research; and the translation of research.
Transforming Systems Through Partnership (non-ODA part)	As above
Engineering Skills for the 21st Century	As a replacement for the Global Grand Challenges Summit, in partnership with the US, Chinese and other engineering academies, organising a hybrid global conference on engineering and innovation skills to meet global challenges.
Enterprise Hub Explore	A mission to Israel on health technologies and 5 Enterprise Fellowships to Irish engineering deep tech start-ups as part of plans to engage Irish start-ups in the Belfast ecosystem.
Technology R&I Thought Leadership Workshops	Workshops with strategically important advanced economy partners that convene leading UK experts with their international counterparts for the exchange of national experiences and learnings on how engineering approaches can positively impact common national-level policy goals.

Source: Technopolis based on RODA and POs input, 2024

Table 30 RAEng – Full portfolio

ODA / NON-ODA	Programme Title	Allocation (2022/23 - 2024/25)	ISPF themes	Supported Types of Activity								Awards made	Spend Underway?	Total Expenditure (programme + award)	Total Forecast Expenditure (programme + award)	ODA partner countries	Non-ODA partner countries
				International Collaborative Academic	Translational Research & Impact Realisation	International mobility (incl. fellowships,	Institutional R&I capacity building	International Collaborative Business-Investment in & access to infrastructure / facilities	Pump-priming	Networking and workshops	Primary Activity Type						
ODA	Africa Catalyst	£796,600.00	Healthy People, Animals & Plants | Tomorrow's Talent	☐	☑	☐	☑	☐	☐	☐	☑	Institutional R&I capacity building	6	Yes	£ 366,739	£368,383	KE; ZA; LDCs	
ODA	Frontiers **(ODA part)**	£1,215,704.00	Resilient Planet | Transformative Technologies | Healthy People, Animals & Plants | Tomorrow's Talent	☑	☑	☐	☐	☑	☐	☑	☑	Networking and workshops	24	Yes	£ 490,238	£635,117	BR; EG; ID; JO; MY; PH; TR; TH; VN; ZA; KE	
ODA	Higher Education Partnerships in Sub-Saharan Africa	£789,686.00	Tomorrow's Talent | Resilient Planet	☑	☑	☑	☑	☑	☑	☐	☑	Institutional R&I capacity building	9	Yes	£ 399,211	£378,123	KE; ZA; LDCs	
ODA	Leaders in Innovation Fellowships **(ODA Part)**	£4,414,930.00	Resilient Planet | Transformative Technologies | Healthy People, Animals & Plants | Tomorrow's Talent	☐	☑	☑	☑	☐	☐	☐	☑	Translational Research & Impact Realisation	14	Yes	£ 1,831,298	£2,724,823	BR; EG; ID; JO; KE; MY; PH; ZA; TH; TR; VN	
ODA	Transforming Systems Through Partnership **(ODA Part)**	£923,350.00	Resilient Planet | Transformative Technologies | Healthy People, Animals & Plants | Tomorrow's Talent	☑	☑	☑	☑	☑	☑	☐	☑	International Collaborative Business-led RD&D	19	Yes	£ 231,728	£754,350	JO; ZA; TH	
ODA	Delivery Costs (for ODA)	£596,600.00											Delivery	£ 235,200	£361,400		
Non-ODA	Engineering Skills for the 21st Century	£165,000.00	Tomorrow's Talent	☐	☐	☐	☐	☐	☐	☐	☑	Networking and workshops		Yes	£ 22,230	£0		CA; CN; IN ; US
Non-ODA	Enterprise Hub Explore	£365,000.00	Tomorrow's Talent	☐	☑	☑	☐	☑	☑	☐	☑	Translational Research & Impact Realisation		No	£ -	£365,000		FR; IE
Non-ODA	Frontiers **(non-ODA part)**	£660,585.00	Resilient Planet | Transformative Technologies | Healthy People, Animals & Plants | Tomorrow's Talent	☑	☑	☐	☐	☑	☐	☑	☑	Networking and workshops	6	Yes	£ 299,685	£350,585		AU; IN ; JP
Non-ODA	Leaders in Innovation Fellowships **(non-ODA part)**	£864,761.00	Resilient Planet | Transformative Technologies | Healthy People, Animals & Plants | Tomorrow's Talent	☐	☑	☑	☑	☐	☐	☐	☑	Translational Research & Impact Realisation	1	Yes	£ 271,388	£484,761		IN
Non-ODA	Technology R&I Thought Leadership Workshops	£796,063.00	Resilient Planet | Transformative Technologies	☐	☐	☐	☐	☐	☐	☐	☑	Networking and workshops		Yes	£ 414,696	£491,063		AU; CA; CN; DE; IN ; IE; JP; KR; US
Non-ODA	Transforming Systems Through Partnership **(non-ODA part)**	£1,034,091.00	Resilient Planet | Transformative Technologies | Healthy People, Animals & Plants | Tomorrow's Talent	☑	☑	☑	☑	☑	☑	☐	☑	International Collaborative Business-led RD&D	11	Yes	£ 298,806	£839,091		IN
Non-ODA	Delivery Costs (for non-ODA)	£280,000.00											Delivery	£ 105,000	£175,000		

Source: Technopolis based on RODA and POs input, 2024

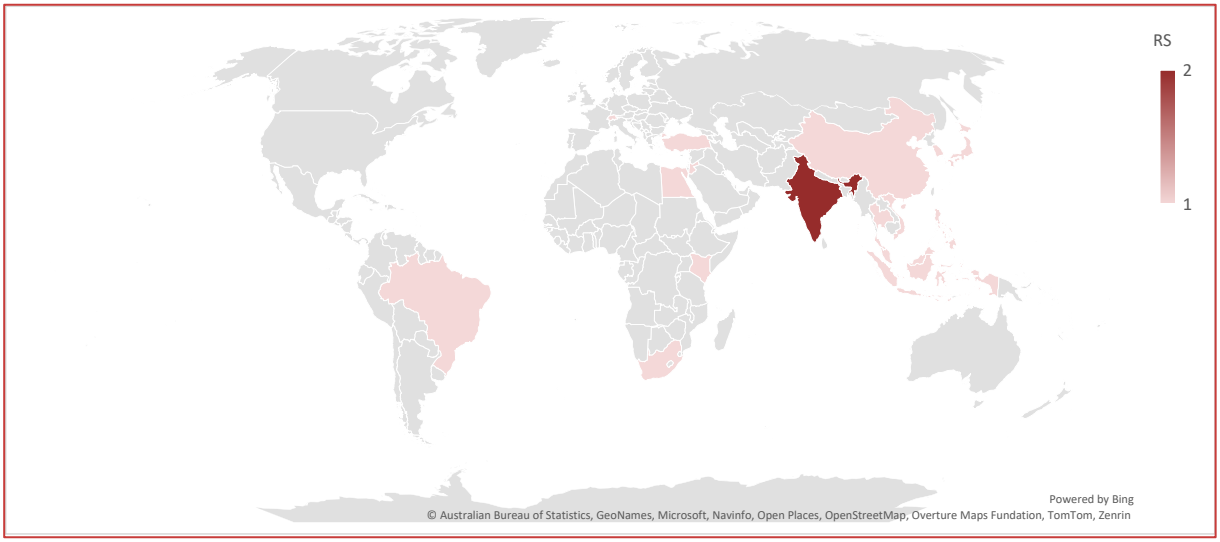
C.5. Royal Society (RS)

C.5.1. RS Portfolio Overview

The **Royal Society (RS)** is one of the four UK National Academies, focused on advancing natural sciences. It ensures public policy is informed by scientific advice, engages industry, the public and schools in science, and provides grants and fellowships to researchers.

ISPF Allocation	The RS has an **ISPF allocation of £11.5m for 3 years** (4% of PO total), covering 3 programmes, plus delivery costs. ODA accounts for £5.4m and 1 programmes, non-ODA for £6.1m and 2.
Current Programmes	Currently (March 2024), the RS has a portfolio of **3 ISPF programmes** that are live or underway (according to Q4 2023/24 RODA data).
ISPF Awards	Awards have been made by all 3 current programmes (**29 awards** in total).
ISPF Spend	**Past expenditure of £2.0m is already reported** across current programmes (excl. delivery costs), up to Q4 2023/24. A further £7.4m is forecast for these same programmes up to Q4 2024/25. £2.0m of past expenditure is through awards (100% of programme total).
ODA/Non-ODA focus	Within the current portfolio, 1 programmes are with **ODA countries** and 2 are with **non-ODA** countries. See figure below.
ISPF Themes	Current programmes are tagged against **1 ISPF Theme**: Nurturing Tomorrow's Talent (3 programmes).
Activity Types	Current programmes most commonly include **networking and workshops** (100%), **international collaborative academic research** (100%). **Institutional R&I capacity building** (100%), and **international mobility** (100%).

Figure 36 RS – Number of current programmes by partner country



Source: Technopolis based on RODA and Allocations data

C.5.2. RS Portfolio Detail

Table 31 RS – List and summary details of each ISPF Programme

Programme	Summary details / activities
International Collaboration Awards (ODA part)	The International Collaboration Awards will provide funding to enable outstanding emerging research leaders in the UK and either Brazil or South Africa jointly to develop research collaborations that directly and primarily address development challenges faced by LMICs. Applications are also strongly encouraged to include a Least Developed Country. The grants are open to newly independent researchers building their own group who are ready to lead and drive the research vision of an international research programme. The objectives of these awards are: supporting collaboration; funding high-quality and original research; and nurturing talent
International Collaboration Awards (non-ODA part)	The International Collaboration Awards provide funding to enable outstanding emerging research leaders in the UK and ISPF countries jointly to develop bilateral research collaborations. As above.
Newton International Fellowships	The Newton International Fellowship programme provides support for outstanding early career researchers to make a first step towards developing an independent research career through gaining experience across international borders. The fellowships enable researchers to access expertise, gain new perspectives and build long-lasting collaborative relationships. The overarching aim of the Newton International Fellowship programme is to attract and retain emerging talent in the UK and build a globally connected, mobile research and innovation workforce. The objectives are to: • Attract talented International early career researchers to establish and conduct their research in the UK • Support early career researchers to pursue high-quality and innovative lines of research • Provide opportunities to acquire new skills and knowledge through training and career development • Foster long-term relationships through networking opportunities and the Newton International Fellowships alumni programme.

Source: Technopolis based on RODA and POs input, 2024

Table 32 RS – Full portfolio

ODA / NON-ODA	Programme Title	Allocation (2022/23 - 2024/25)	ISPF themes	Supported Types of Activity								Primary Activity Type	Awards made	Spend Underway?	Total Expenditure (programme + award)	Total Forecast Expenditure (programme + award)	ODA partner countries	Non-ODA partner countries
				International Collaborative Academic	Translational Research & Impact Realisation	International mobility (incl. fellowships,	Institutional R&I capacity building	International Collaborative Business-Investment in & access to infrastructure / facilities	Pump-priming	Networking and workshops								
ODA	International Collaboration Awards **(ODA part)**	£5,200,000.00	Tomorrow's Talent	☑	☐	☑	☑	☐	☐	☐	☑	International Collaborative Academic Research	9	Yes	£ 736,591	£3,450,000	EG; KE; ZA; BR; ID; MY; PH; TH; VN; JO; TR; LDCs	
ODA	Delivery Costs (for ODA)	£230,345.00												Delivery	£ 38,850	£141,505		
Non-ODA	International Collaboration Awards **(non-ODA part)**	£4,436,422.00	Tomorrow's Talent	☑	☐	☑	☑	☐	☐	☐	☑	International Collaborative Academic Research	15	Yes	£ 1,082,768	£2,999,999		CN; IN ; JP; KR
Non-ODA	Newton International Fellowships	£1,017,069.00	Tomorrow's Talent	☑	☐	☑	☑	☐	☐	☐	☑	International Collaborative Academic Research	5	Yes	£ 198,294	£931,532		CH
Non-ODA	Delivery Costs (for non-ODA)	£646,715.00												Delivery	£ 132,891	£306,816		

Source: Technopolis based on RODA and POs input, 2024

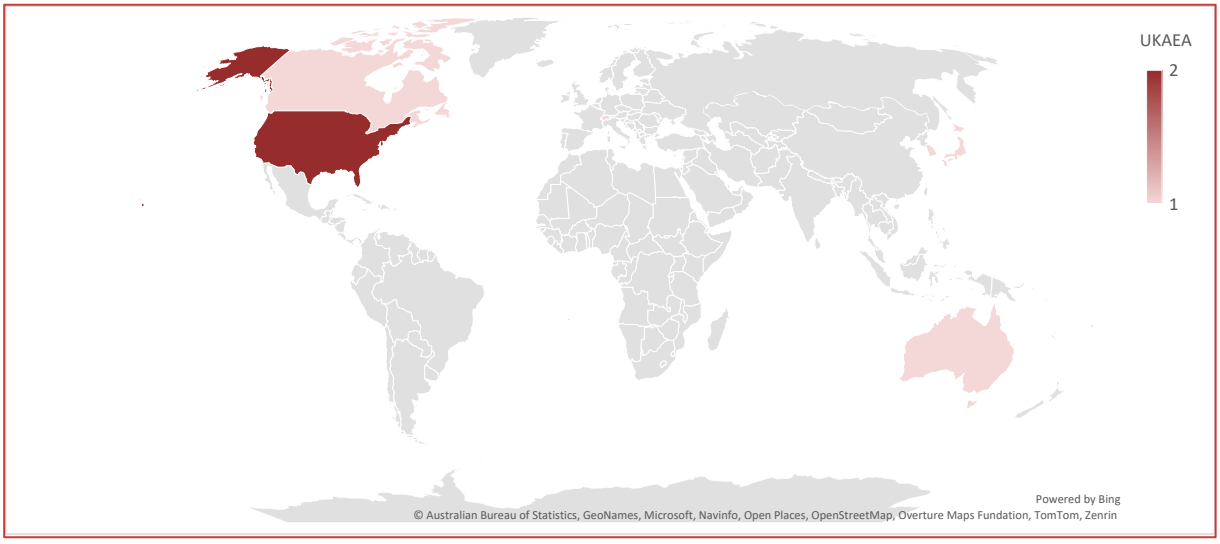
C.6. UK Atomic Energy Authority (UKAEA)

C.6.1. UKAEA Portfolio Overview

The **UK Atomic Energy Authority (UKAEA)** is a government research organisation focused on the development of nuclear fusion energy. It leads several research facilities and programmes with the objective of maximising the scientific and economic benefit of sustainable nuclear fusion.

ISPF Allocation	UKAEA has an **ISPF allocation of £7.0m for 3 years** (2% of PO total), covering 10 programmes, plus delivery costs. All allocations and programmes are non-ODA.
Current Programmes	Currently (March 2024), UKAEA has a portfolio of **8 ISPF programmes** that are live or underway (according to Q4 2023/24 RODA data).
ISPF Awards	No awards have been made by these programmes.
ISPF Spend	**Past expenditure of £2.2m is already reported** across current programmes (excl. delivery costs), up to Q4 2023/24. A further £2.5m is forecast for these same programmes up to Q4 2024/25. None of past expenditure is through awards (0% of programme total).
ODA/Non-ODA focus	Within the current portfolio, none of the programmes are with **ODA countries** and 8 are with **non-ODA** countries. See figure below.
ISPF Themes	Current programmes are tagged against **3 ISPF Themes**: Resilient Planet (5 programmes), Transformative Technologies (4), and Nurturing Tomorrow's Talent (1).
Activity Types	Current programmes include **international collaborative business-led RD&D** (100%), and **international mobility** (13%).

Figure 37 UKAEA – Number of current programmes by partner country



Source: Technopolis based on RODA and Allocations data

C.6.2. UKAEA Portfolio Detail

Table 33 UKAEA – List and summary details of each ISPF Programme

Programme	Summary details / activities
UKAEA-Israel Quantum (GRI Technical Fund)	Project in collaboration with Actkar in Israel.
TCAP & PSA Materials	The UKAEA will work closely with Canadian Nuclear Laboratories (CNL), combining specialist tritium knowledge, talent and expertise to extend research for the benefit of the fusion industry within the UK and overseas. With the level of global investment increasing worldwide in fusion, such research will enable the drive towards commercial fusion. This project enables the collaborative testing of candidate materials for the development of two different adsorption based separation processes. These separation techniques promise efficiency and throughput advantages above currently available technologies. Gaps exist in literature data for the interaction of hydrogen isotopes with candidate materials.
UKAEA-Australia-OPAL (Upgrade)	Collaboration with ANSTO in Australia.
UKAEA-Japan- Blankets	Collaboration on novel high temperature microstructures for irradiated structural materials (steel and/or ceramic composite)
UKAEA-South Korea-Robotics	The work will explore concepts and feasibility for long-reach tendon driven robotic deployments, as well as laser in-bore cutting and welding
UKAEA-Switzerland-Diamond (Tritium Powered Diamond Battery)	Proton beam line irradiations for neutron resilient materials and tritium breeding substrates.
UKAEA-US - Tritium permeation and retention in materials	Multi-physics simulation of breeding blankets, optimisation for fusion design, liquid breeder experiments and modelling and engineering work.
VALIR: Vanadium Alloy - Lithium Interfaces (Radiochemistry and specialist fabrication feasibility study)	The project will investigate the behaviour of tritium at the interface between liquid lithium and vanadium metal alloys. The investigation will be led by modelling using machine learning (AI) interatomic potentials created using a database of DFT generated data. Once generated, the potential will be used to model the dynamics of tritium between lithium and vanadium alloys. The modelling programme will be supported by an experimental programme, which will develop an experimental rig to explore the irradiation-induced corrosion of vanadium-alloy surfaces in the presence of lithium; this experimental activity will provide the structural characterisation needed to benchmark the modelling.

Source: Technopolis based on RODA and POs input, 2024

Table 34 UKAEA – Full portfolio

ODA / NON-ODA	Programme Title	Allocation (2022/23 - 2024/25)	ISPF themes	Supported Types of Activity									Awards made	Spend Underway?	Total Expenditure (programme + award)	Total Forecast Expenditure (programme + award)	ODA partner countries	Non-ODA partner countries
				International Collaborative Academic	Translational Research & Impact Realisation	International mobility (ind. fellowships,	Institutional R&I capacity building	International Collaborative Business-	Investment in & access to infrastructure / facilities	Pump-priming	Networking and workshops	Primary Activity Type						
Non-ODA	UKAEA-Israel Quantum - GRI Technical Fund	£636,940.00	Transformative Technologies	☐	☐	☐	☐	☑	☐	☐	☐	International Collaborative Business-led RD&D		Yes	£ 143,654	£280,362		IL
Non-ODA	Delivery costs (for Israel Quantum)	£40,000.00												Delivery				
Non-ODA	TCAP & PSA Materials	£89,576.00	Resilient Planet	☐	☐	☐	☐	☑	☐	☐	☐	International Collaborative Business-led RD&D		Yes	£ 71,375	£23,215		CA
Non-ODA	Delivery Costs (TCAP & PSA Materials)	£10,578.00												Delivery	£ 3,979	£0		
Non-ODA	UKAEA-Australia-OPAL Upgrade	£1,050,000.00	Transformative Technologies	☐	☐	☑	☐	☑	☐	☐	☐	International Collaborative Business-led RD&D		Yes	£ 370,100	£210,000		AU
Non-ODA	UKAEA-Japan	£390,961.00	Resilient Planet	☐	☐	☐	☐	☑	☐	☐	☐	International Collaborative Business-led RD&D		Yes	£ 240,961	£150,000		JP
Non-ODA	UKAEA-South Korea	£400,000.00	Resilient Planet	☐	☐	☐	☐	☑	☐	☐	☐	International Collaborative Business-led RD&D		Yes	£ 184,185	£200,000		KR
Non-ODA	Tritium Powered Diamond Battery	£224,981.00	Transformative Technologies	☐	☐	☐	☐	☑	☐	☐	☐	International Collaborative Business-led RD&D		Yes	£ 144,589	£50,000		CH
Non-ODA	Delivery Costs (for Tritium Powered Diamond Battery Extension)	£14,517.00												Delivery				
Non-ODA	US - Tritium permeation and retention in materials	£1,585,604.00	Resilient Planet | Transformative Technologies | Tomorrow's	☐	☐	☐	☐	☑	☐	☐	☐	International Collaborative Business-led RD&D		Yes	£ 645,783	£600,000		US
Non-ODA	Vanadium Alloy - Lithium Interfaces: Radiochemistry and specialist fabrication feasibility study (VALIR)	£1,320,000.00	Resilient Planet	☐	☐	☐	☐	☑	☐	☐	☐	International Collaborative Business-led RD&D		Yes	£ 391,658	£960,000		US
Non-ODA	Delivery Costs (for Vanadium Alloy - Lithium Interfaces: Radiochemistry and specialist fabrication feasibility study (VALIR))	£50,000.00												Delivery				
Non-ODA	Switzerland Tritium Powered Diamond Battery	£635,896.00	Resilient Planet											No				CH
Non-ODA	Tritium monitor evaluation facility	£516,438.00	Resilient Planet											No				US

Source: Technopolis based on RODA and POs input, 2024

C.7. Universities UK International (UUKi)

C.7.1. UUKi Portfolio Overview

Universities UK International (UUKi) is focused on supporting and promoting the international activities of UK universities. It facilitates global partnerships and collaborations, campaigns for international students, represents UK universities on international platforms, and provides advice on international higher education policies.

ISPF Allocation	UUKi has an **ISPF allocation of £1.5m for 3 years** (0.5% of PO total), covering 3 programmes, plus delivery costs. All allocations and programmes are non-ODA.
Current Programmes	Currently (March 2024), UUKi has **1 ISPF programme** that is live or underway (according to Q4 2023/24 RODA data).
ISPF Awards	Awards have been made by this programme (**28 awards** in total).
ISPF Spend	**Past expenditure of £0.1m is already reported** by the current programme (excl. delivery costs), up to Q4 2023/24. A further £0.4m is forecast for the same programme up to Q4 2024/25. £0.1m of past expenditure is through awards (100% of programme total).
ODA/Non-ODA focus	Within the current portfolio, no programmes are with **ODA countries** and 1 is with **non-ODA** countries (Israel).
ISPF Themes	The current programme is tagged against **1 ISPF Themes**: Nurturing Tomorrow's Talent (1 programme).
Activity Types	The current programmes includes **international mobility** (100%).

C.7.2. UUKi Portfolio Detail

Table 35 UUKi – List and summary details of each ISPF Programme

Programme	Summary details / activities
UK - Israel Innovation Researcher Mobility scheme	**Call 1 Outward mobility** - One way mobility scheme allowing UK based researchers to travel to and learn from partners in Israel; or the Occupied Palestinian Territories to carry out projects that will enhance their innovation and entrepreneurial skills **Call 2 Inward and outward mobility** - Two way mobility scheme allowing UK based researchers to travel to and learn from partners in Israel; or the Occupied Palestinian Territories and vice versa to carry out projects that will enhance their innovation and entrepreneurial skills

Source: Technopolis based on RODA and POs input, 2024

Table 36 UUKi – Full portfolio

ODA / NON-ODA	Programme Title	Allocation (2022/23 - 2024/25)	ISPF themes	Supported Types of Activity									Awards made	Spend Underway?	Total Expenditure (programme + award)	Total Forecast Expenditure (programme + award)	ODA partner countries	Non-ODA partner countries
				International Collaborative Academic	Translational Research & Impact Realisation	International mobility (ind. fellowships,	Institutional R&I capacity building	International Collaborative Business-	Investment in & access to infrastructure / facilities	Pump-priming	Networking and workshops	Primary Activity Type						
Non-ODA	UK - Israel Innovation Researcher Mobility scheme	£956,399.00	Tomorrow's Talent	☐	☐	☑	☐	☐	☐	☐	☐	International mobility (incl. fellowshops, secondments)	28	Yes	£ 103,625	£416,350		IL
Non-ODA	Delivery Costs (Israel innovation)	£143,600.00												Delivery	£ 81,899	£61,701		
Non-ODA	Building a strategic research and innovation ecosystem - grants scheme programme	£100,000.00	Tomorrow's Talent											No				FR
Non-ODA	Delivery Costs (for Building a strategic research and innovation ecosystem - grants scheme programme)	£40,000.00	Tomorrow's Talent											Delivery				
Non-ODA	UK-Korea International Research Partnership for Engineering Biology	£225,000.00	Tomorrow's Talent I Transformative Technologies											No				KR
Non-ODA	Delivery Costs (for UK-Korea International Research Partnership for Engineering Biology)	£11,250.00	Tomorrow's Talent I Transformative Technologies											Delivery				

Source: Technopolis based on RODA and POs input, 2024

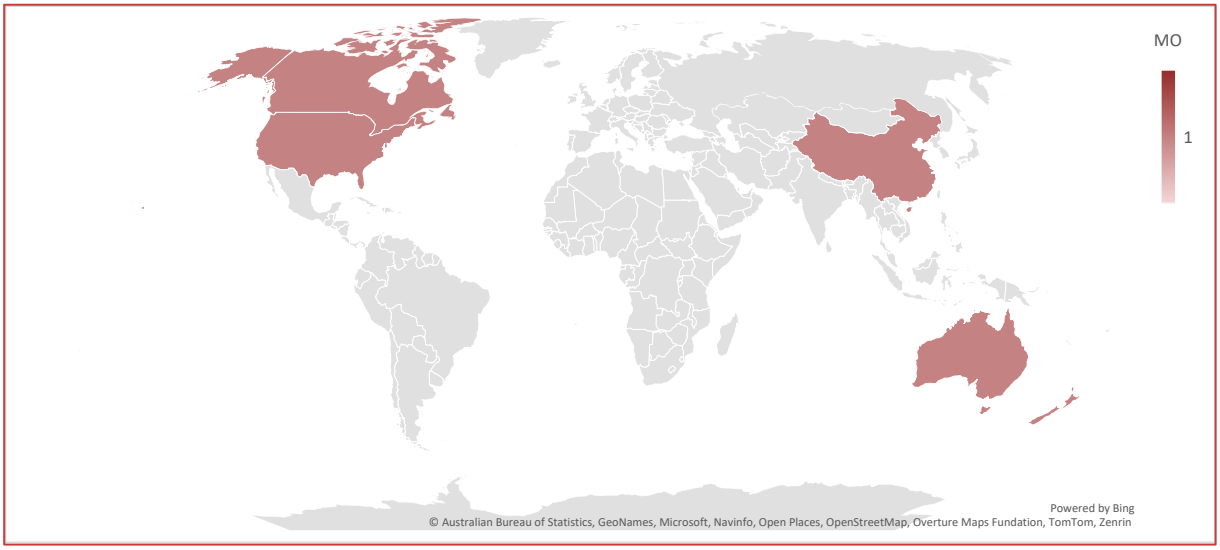
C.8. Met Office (MO)

C.8.1. MO Portfolio Overview

The **Met Office (MO)** is the UK's national weather and climate service, an executive agency under DSIT. It delivers forecasts and warnings to the public, and supports the aviation, agriculture, and shipping sectors. It also conducts research on climate change and atmospheric science through international collaborations.

ISPF Allocation	The MO has an **ISPF allocation of £25.5m for 3 years** (9% of PO total), covering 14 programmes, plus delivery costs. ODA accounts for £15.0m and 6 programmes, non-ODA for £10.5m and 8.
Current Programmes	Currently (March 2024), the MO has a portfolio of **2 ISPF programmes** that are live or underway (according to Q4 2023/24 RODA data).
ISPF Awards	Awards have been made by 2 programmes (**8 awards made** in total).
ISPF Spend	**Past expenditure of £2.8m is already reported** across current programmes (excl. delivery costs), up to Q4 2023/24. A further £6.1m is forecast for these same programmes up to Q4 2024/25. £0.1m of past expenditure is through awards (1% of programme total).
ODA/Non-ODA focus	Within the current portfolio, none of the programmes are with **ODA countries** and 2 are with **non-ODA** countries. See figure below.
ISPF Themes	Current programmes are tagged against **2 ISPF Themes**: Resilient Planet (2 programmes) and Nurturing Tomorrow's Talent (1).
Activity Types	Current programmes include **international collaborative academic research** (100%).

Figure 38 MO – Number of current programmes by partner country



Source: Technopolis based on RODA and Allocations data

C.8.2. MO Portfolio Detail

Table 37 MO – List and summary details of each ISPF Programme

Programme	Summary details / activities
Advancing Arctic Meteorological and Oceanographic Capabilities (AAC)	This programme improves the quality and application of meteorological and oceanographic data and expert services for the Arctic, enabling the UK to be seen as a credible and authoritative source of data and expertise. It addresses requirements in the Integrated Review and UK Arctic Policy Framework, increasing UK contribution to Arctic science and supporting the adaptation to climate change. It develops our previous Tactical Fund partnership building and exploratory application of science and previous MOD work developing meteorological priorities under the Integrated Review. We leverage existing partnerships under the Met5 defence meteorology community with Canada and the US, and further building relationships with Nordic meteorological organisations through NATO. The Australian Bureau of Meteorology are working on improvements in polar modelling, and we seek to align our work. These partnerships enable improved polar research, development and service provision through sharing of expertise.
Weather & Climate Science for Service Partnership (WCSSP) (Non-ODA Part) **- China**	Collaborative climate science research between Chinese and UK researchers to help better understand the likely causes of climate-related extreme events and long-term climate trends in China and East Asia region. Increased scientific understanding will help to better mitigate the risks arising from climate variability and change.
Weather & Climate Science for Service Partnership (WCSSP) (Non-ODA Part)	To undertake research on natural hazards in South Asian Monsoon system; Improve capability of global coupled, regional convective scale (km) coupled and sub km city scale (300m) modelling frameworks to predict priority natural hazards over India. This will involve a significant observational strand to evaluate coupled models at the process level, and Improve tools and techniques for risk based (Ensemble) forecasting of natural hazards at a range of prediction timescales up to a season ahead as a mechanism/pathway for delivering improved weather and seasonal climate services in country.
Weather & Climate Science for Service Partnership (WCSSP) (ODA Part)	As above.
Weather & Climate Science for Service Partnership (WCSSP) (ODA Part) **- Brazil**	Collaborative climate science research programme between Brazilian and UK to improve understanding of recent climate changes and Brazil's role in mitigation activities to inform international negotiations; to enhance projections of future weather and climate extremes and impacts to inform decision making and contribute to disaster risk reduction in Brazil
Weather & Climate Science for Service Partnership (WCSSP) (ODA Part) **- Kenya**	Working collaboratively to address the challenges presented by extreme weather and climate will help safeguard lives and livelihoods across southern Africa, especially in the most vulnerable communities and help reduce the costs of disaster recovery and adaption for the Kenyan government. Outputs are being translated into products and services to assist governments, businesses and communities in decision-making around weather and climate resilience and adaptation. Through tackling challenges in multiple sectors, these services will help inform disaster risk-reduction strategies within Kenya and the wider African continent.
Weather & Climate Science for Service Partnership (WCSSP) (ODA Part) **– South East Asia**	Strengthened partnership between meteorological services in UK, Vietnam, Philippines, Malaysia and Indonesia to produce scoping study identifying S-E Asian region weather forecasting and climate research priorities. This includes training needs analysis for future capacity building work and initial survey of severe weather and DRR services.
Weather & Climate Science for Service Partnership (WCSSP) (ODA Part) **– South Africa**	Collaborative project between meteorological services in South Africa and UK focusing on capacity building for improved weather and climate services, enabling mitigation of risk from extreme weather events. This includes development of modelling capability for enhanced early weather warnings and a capacity building training programme for severe weather forecasting.
AI for Weather & Climate	Using AI to advance weather and climate science, and hence deliver improved predictions and projections more quickly than would otherwise be possible. The activity aims to work with partner countries to co-develop region-specific climate models with AI/ML built in to equip partners with the capability to better understand climate risks. This work will also result in models that can be used by other ODA-eligible countries.

Source: Technopolis based on RODA and POs input, 2024

Table 38 MO – Full portfolio

ODA / NON-ODA	Programme Title	Allocation (2022/23 - 2024/25)	ISPF themes	Supported Types of Activity									Awards made	Spend Underway?	Total Expenditure (programme + award)	Total Forecast Expenditure (programme + award)	ODA partner countries	Non-ODA partner countries
				International Collaborative Academic	Translational Research & Impact Realisation	International mobility (incl. fellowships,	Institutional R&I capacity building	International Collaborative Business-Investment in & access to infrastructure / facilities	Pump-priming	Networking and workshops	Primary Activity Type							
Non-ODA	Advancing Arctic Meteorological and Oceanographic Capabilities (AAC)	£4,651,200.00	Resilient Planet | Tomorrow's Talent	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research	6	Yes	£ 936,621	£3,687,431		AU; CA; NZ; US
Non-ODA	Delivery Costs (AAC)	£244,800.00												Delivery	£ 50,900	£190,569		
Non-ODA	Weather & Climate Science for Service Partnership (WCSSP) **(Non-ODA Part)** - China	£4,300,000.00	Resilient Planet	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research	2	Yes	£ 1,896,566	£2,400,000		CN
Non-ODA	Weather & Climate Science for Service Partnership (WCSSP) **(Non-ODA Part)** - India	£450,000.00	Resilient Planet	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research	3	No	£ -	£450,000		IN
Non-ODA	Delivery Costs (WCSSP - China & India)	£250,929.00												Delivery	£ 100,929	£150,000		
ODA	Weather & Climate Science for Service Partnership (WCSSP) **(ODA Part)** - India	£2,883,500.00	Resilient Planet	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research	1	No	£ -	£2,883,500	IN	
ODA	Weather & Climate Science for Service Partnership (WCSSP) **(ODA Part)** - Brazil	£2,523,500.00	Resilient Planet	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research	5	No	£ -	£2,523,500	BR	
ODA	Weather & Climate Science for Service Partnership (WCSSP) **(ODA Part)** - Kenya	£300,000.00	Resilient Planet	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research		No	£ -	£300,000	KE	
ODA	Weather & Climate Science for Service Partnership (WCSSP) **(ODA Part)** - South East Asia	£2,774,500.00	Resilient Planet	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research	3	No	£ -	£2,774,500	ID; MY; PH; VN	
ODA	Weather & Climate Science for Service Partnership (WCSSP) **(ODA Part)** - South Africa	£1,648,500.00	Resilient Planet	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research	2	No	£ -	£1,648,500	ZA	
ODA	Delivery Costs (WCSSP - all ODA)	£758,100.00												Delivery	£ -	£758,100	ID; MY; PH; VN; BR; IN ; ZA; KE	
ODA	AI for Weather & Climate	£3,840,080.00	Resilient Planet | Transformative Technologies | Tomorrow's Talent	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research		No	£ -	£3,840,080	IN ; ZA	
ODA	Delivery Costs (AI Weather & Climate)	£268,806.00												Delivery	£ -	£268,806	IN ; ZA	
Non-ODA	Convective-scale weather model initialisation	£300,000.00	Resilient Planet											No				SG
Non-ODA	Developing partnerships to improve meteorological and climate services in the Arctic	£95,000.00	Resilient Planet											No				CA; NO
Non-ODA	Global ocean model development and evaluations	£100,000.00	Resilient Planet											No				CN
Non-ODA	Sub-selection of CMIP6 Models for Southeast Asian Climate Projections	£44,316.00	Resilient Planet											No				SG
Non-ODA	Scaling Urban Climate Service Development	£75,000.00	Resilient Planet											No				US

Source: Technopolis based on RODA and POs input, 2024

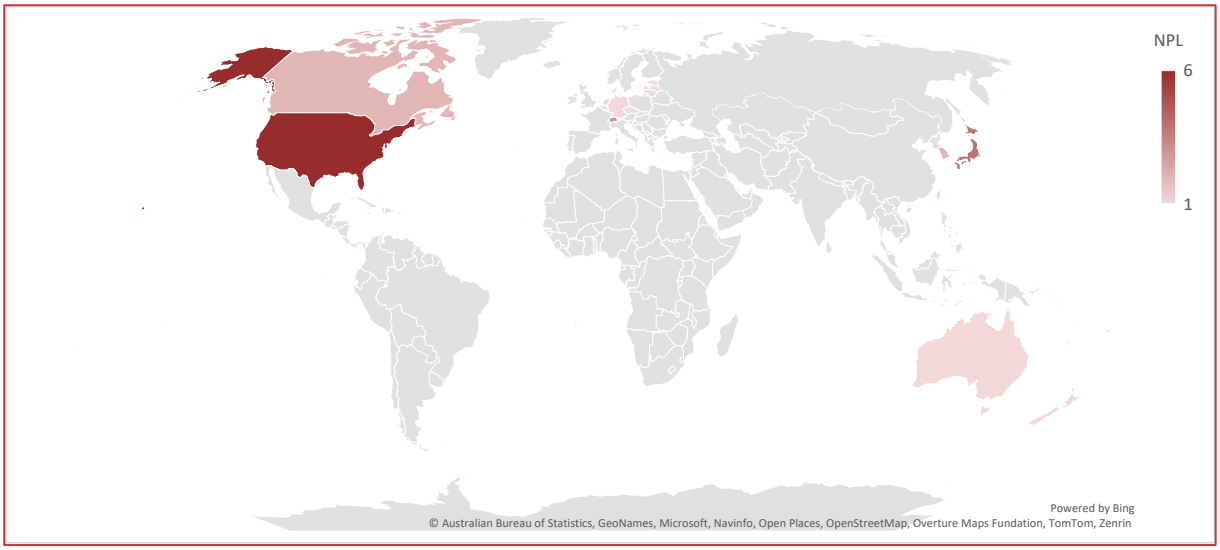
C.9. National Physical Laboratory (NPL)

C.9.1. NPL Portfolio Overview

The **National Physical Laboratory (NPL)** is the national metrology institute of the UK, focused on measurement science and standards. It develops and maintains national measurement standards, provides calibration and testing services, and conducts research in advanced measurement technologies.

ISPF Allocation	NPL has an **ISPF allocation of £6.1m for 3 years** (2% of PO total), covering 15 programmes, plus delivery costs. All allocations and programmes are non-ODA.
Current Programmes	Currently (March 2024), NPL has a portfolio of **12 ISPF programmes** that are live or underway (according to Q4 2023/24 RODA data).
ISPF Awards	No awards have been made by current programmes.
ISPF Spend	**Past expenditure of £1.7m is already reported** across current programmes (excl. delivery costs), up to Q4 2023/24. A further £2.5m is forecast for these same programmes up to Q4 2024/25. None of the past expenditure is through awards (0% of programme total).
ODA/Non-ODA focus	Within the current portfolio, none of the programmes are with **ODA countries** and 12 are with **non-ODA** countries. See figure below.
ISPF Themes	Current programmes are tagged against **3 ISPF Themes**: Resilient Planet (6 programmes), Transformative Technologies (6) and Nurturing Tomorrow's Talent (1).

Figure 39 NPL – Number of current programmes by partner country



Source: Technopolis based on RODA and Allocations data

C.9.2. NPL Portfolio Detail

Table 39 NPL – List and summary details of each ISPF Programme

Programme	Summary details / activities
Engineering biology: international metrology and standards project	Science delivery/workshops
UK-Canada-Baltics – MAS Programme	Developing Collaboration on international standards for Maritime Autonomous Systems (MAS) and Remote Operated Systems (ROS) operations
MAAT GRI SGN JPN: 2023 - 2025 UK-Singapore Maritime Autonomous Systems (Singapore & workshops in Japan)	Workshops with partner countries
Knowledge Exchange -Power Networks Programme	Measurement standards needed to support transition to net zero. Science project activities for the project.
International Collaboration in Quantum Science & Technologies	Quantum Standardisation - Collaboration with NMIs to create international standards in quantum technologies
International Collaboration in Quantum Science & Technologies	Collaborations with partners primarily at NIST to further research in quantum technologies
National Graphene Institute - Adaptive Quantum Materials	Programme led activities for Adaptive Quantum Materials.
National Graphene Institute - Quantum Electronics Materials of Tomorrow	Project level activities.
Greenhouse Gas Emissions Programme	Engaging internationally to capture current and future greenhouse gas emissions measurement and modelling requirements
Setting the Standards for Semiconductors	This project will position the UK to shape and influence global standards in compound and advanced-material semiconductors. NPL will work with National Institutes in USA (NIST), Taiwan (ITRI), South Korea (KRISS), and Japan (NIMS) to identify and agree on key areas that require measurement method development, identify potential for technology/knowledge transfer, and prioritise future international collaborative activities of UK interest. This will include incoming and outgoing secondments with USA, Taiwan and South Korea, joint scientific work, visits and workshops, leading to a roadmap for international pre- standards research, and the formation of a global VAMAS technical working group on Semiconductors to deliver it. VAMAS is a global inter-governmental organisation established in 1982 (proposed by the UK Government) following a G7 Economic Summit to facilitate innovation and global trade through international collaborative projects that provides the technical basis for creation of standards.
NZ Earthquakes Detection Programme	Earthquake Detection using seafloor cables - seismic metrology (quantum collaboration)
Knowledge Exchange Hydrogen Programme	Infrastructure to support the development and commercialisation of UK liquid hydrogen techs
IR laser spectrometry of Carbon-14 for GHG monitoring – NIST Collaboration	Visits to NIST / UK Capability
NPL/Republic of Korea Quantum Collaboration	Programme to engage and deliver collaborations with the Republic of Korea in Quantum Technologies
NPL/Japan Quantum Collaboration	Programme for collaborations with Japan

Source: Technopolis based on RODA and POs input, 2024

Table 40 NPL – Full portfolio

ODA / NON-ODA	Programme Title	Allocation (2022/23 - 2024/25)	ISPF themes	Supported Types of Activity									Awards made	Spend Underway?	Total Expenditure (programme + award)	Total Forecast Expenditure (programme + award)	ODA partner countries	Non-ODA partner countries
				International Collaborative Academic	Translational Research & Impact Realisation	International mobility (incl. fellowships,	Institutional R&I capacity building	International Collaborative Business-Investment in & access to infrastructure / facilities	Pump- priming	Networking and workshops	Primary Activity Type							
Non-ODA	Engineering biology: international metrology and standards project	£230,000.00	Transformative Technologies	☐	☐	☐	☐	☐	☐	☐	☐			Yes	£ 87,943	£135,000		US
Non-ODA	Delivery Costs (Engineering Biology)	£20,000.00												Delivery	£ 4,981	£15,000		
Non-ODA	UK-Canada-Baltics – Developing Collaboration on international standards for Maritime Autonomous Systems (MAS) and Remote Operated Systems (ROS) operations	£96,586.00	Transformative Technologies	☐	☐	☐	☐	☐	☐	☐	☐			Yes	£ 67,321	£20,331		CA; LV
Non-ODA	Delivery Costs (UK-Canada-Baltics–MAS)	£3,091.00												Delivery	£ 2,812	£0		
Non-ODA	2023 - 2025 UK-Singapore Maritime Autonomous Systems (Singapore & workshops in Japan)	£1,433,000.00	Resilient Planet	☐	☐	☐	☐	☐	☐	☐	☐			Yes	£ 375,811	£735,467		SG; JP; KR
Non-ODA	Delivery Costs (MAAT GRI SGN JPN)	£39,000.00												Delivery	£ 21,460	£8,540		
Non-ODA	Knowledge Exchange -Power Network measurement standards needs to support transition to net zero	£48,900.00	Resilient Planet	☐	☐	☐	☐	☐	☐	☐	☐			Yes	£ 18,432	£25,035		CH
Non-ODA	Delivery Costs (Knowledge Exchange Power Networks)	£11,100.00												Delivery	£ 3,612	£4,500		
Non-ODA	International Collaboration in Quantum Science & Technologies	£1,625,000.00	Transformative Technologies	☐	☐	☐	☐	☐	☐	☐	☐			Yes	£ 377,904	£878,000		US; CA; JP; AU; DE; NL; DK; SG
Non-ODA	Delivery Costs (International Collaboration in Quantum)	£225,000.00												Delivery	£ 68,484	£150,000		
Non-ODA	National Graphene Institute - Adaptive Quantum Materials	£121,000.00	Transformative Technologies	☐	☐	☐	☐	☐	☐	☐	☐			Yes	£ 105,891	£20,000		CH
Non-ODA	Delivery Costs (NGI Adaptive Quantum Materials)	£10,525.20												Delivery	£ 10,525	£0		
Non-ODA	National Graphene Institute - Quantum Electronics Materials of Tomorrow	£125,000.00	Transformative Technologies	☐	☐	☐	☐	☐	☐	☐	☐			Yes	£ 110,439	£20,000		JP
Non-ODA	Delivery Costs (NGI Quantum Electronics Materials)	£10,000.00												Delivery	£ 9,824	£0		
Non-ODA	Engaging internationally to capture current and future greenhouse gas emissions measurement and modelling requirements	£95,195.40	Resilient Planet	☐	☐	☐	☐	☐	☐	☐	☐			Yes	£ 21,317	£47,597		CH; US
Non-ODA	Delivery Costs (Greenhouse Gas Emissions)	£3,704.15												Delivery	£ 1,686	£1,852		
Non-ODA	Setting the Standards for Semiconductors	£363,370.00	Transformative Technologies	☐	☐	☐	☐	☐	☐	☐	☐			Yes	£ 186,709	£168,900		US; KR; JP; TW
Non-ODA	Delivery Costs (Standards for Semiconductors)	£36,630.00												Delivery	£ 17,783	£16,275		
Non-ODA	Earthquakes detection with seafloor cables (quantum collaboration)	£707,000.00	Resilient Planet	☐	☐	☐	☐	☐	☐	☐	☐			Yes	£ 238,569	£477,000		NZ
Non-ODA	Delivery Costs (NZ Earthquakes)	£35,000.00												Delivery	£ 5,029	£30,000		
Non-ODA	Knowledge Exchange - infrastructure to support the development and commercialisation of UK liquid hydrogen techs	£77,300.00	Resilient Planet	☐	☐	☐	☐	☐	☐	☐	☐			Yes	£ 72,839	£4,000		US
Non-ODA	Delivery Costs (KE Hydrogen)	£5,700.00												Delivery	£ 5,665	£2,000		
Non-ODA	IR laser spectrometry of Carbon-14 for GHG monitoring – NIST Collaboration	£95,067.00	Resilient Planet, Tomorrow's Talent	☐	☐	☐	☐	☐	☐	☐	☐			Yes	£ 59,381	£18,050		US
Non-ODA	Delivery Costs (IR C14)	£3,226.00												Delivery	£ 1,402	£950		
Non-ODA	NPL/Republic of Korea Quantum Collaboration	£209,000.00	Transformative Technologies	☐	☐	☐	☐	☐	☐	☐	☐			No	£ -	£209,000		KR
Non-ODA	Delivery Costs (Quantum Korea)	£16,000.00												Delivery	£ -	£16,000		
Non-ODA	NPL/Japan Quantum Collaboration	£209,000.00	Transformative Technologies	☐	☐	☐	☐	☐	☐	☐	☐			No	£ -	£209,000		JP
Non-ODA	Delivery Costs (Quantum Japan)	£16,000.00												Delivery	£ -	£16,000		
Non-ODA	Development of Internationally-Recognised Methane Reporting Standards and Quality Assurance	£206,000.00	Resilient Planet											No				JP; KR; US; NL; CA
Non-ODA	Delivery Costs (for Development of Internationally-Recognised Methane Reporting Standards and Quality Assurance)	£16,000.00												Delivery				

Source: Technopolis based on RODA and POs input, 2024

C.10. Connected Places Catapult (CPC)

C.10.1. CPC Portfolio Overview

The **Connected Places Catapult (CPC)** is one of several Catapult Centres setup by Innovate UK, and is focused on innovation in cities and transport systems. Its activities include providing innovation as a service, connecting businesses with research, and running technology demonstrators and SME accelerators.

ISPF Allocation	CPC has an **ISPF allocation of £1.6m for 3 years** (0.6% of PO total), covering 2 programmes, plus delivery costs. All allocations and programmes are non-ODA.
Current Programmes	Currently (March 2024), CPC has **1 ISPF programme** that is live or underway (according to Q4 2023/24 RODA data).
ISPF Awards	No awards have been made by the programme.
ISPF Spend	**Past expenditure of £0.9m is already reported** the current programme (excl. delivery costs), up to Q4 2023/24. A further £0.5m is forecast for the same programme up to Q4 2024/25.
ODA/Non-ODA focus	Within the current portfolio, none of the programmes are with **ODA countries** and 1 is with **non-ODA** countries (South Korea).
ISPF Themes	The current programme is tagged against **1 ISPF Theme**: Transformative Technologies (1 programme).
Activity Types	The current programme includes **networking and workshops** (100%), **international collaborative academic research** (100%) and **internationally collaborative business-led RD&D** (100%).

C.10.2. CPC Portfolio Detail

Table 41 CPC – List and summary details of each ISPF Programme

Programme	Summary details / activities
UK-South Korea Innovation Twins	Years 2 and 3 of Phase 3 of the programme covering financial years 2023/2024 and 2024/2025

Source: Technopolis based on RODA and POs input, 2024

Table 42 CPC – Full portfolio

ODA / NON-ODA	Programme Title	Allocation (2022/23 - 2024/25)	ISPF themes	Supported Types of Activity								Primary Activity Type	Awards made	Spend Underway?	Total Expenditure (programme + award)	Total Forecast Expenditure (programme + award)	ODA partner countries	Non-ODA partner countries
				International Collaborative Academic	Translational Research & Impact Realisation	International mobility (incl. fellowships,	Institutional R&I capacity building	International Collaborative Business-Investment in & access to infrastructure / facilities	Pump-priming	Networking and workshops								
Non-ODA	UK-South Korea Innovation Twins	£1,380,000.00	Transformative Technologies	☑	☐	☐	☐	☑	☐	☐	☑	International Collaborative Academic Research		Yes	£ 875,000	£504,501		KR
Non-ODA	UK-India Innovation for Net Zero Centre	£260,000.00	Resilient Planet											No				IN

Source: Technopolis based on RODA and POs input, 2024

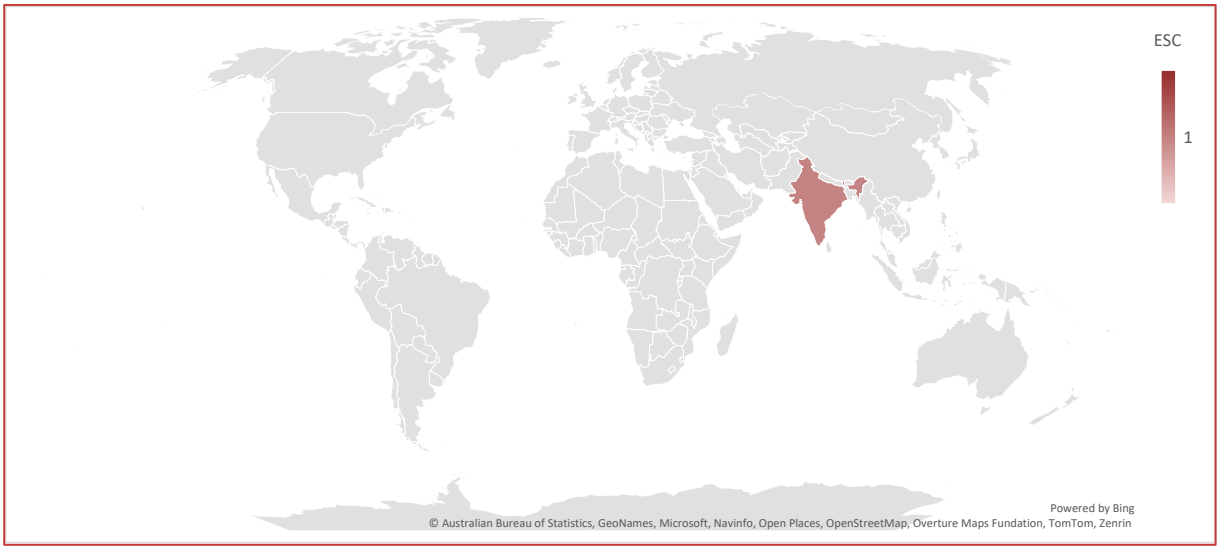
C.11. Energy Systems Catapult (ESC)

C.11.1. ESC Portfolio Overview

The **Energy Systems Catapult (ESC)** is one of several Catapult Centres setup by Innovate UK, and is focused on accelerating Net Zero energy innovation. Its activities include managing decarbonisation trials, supporting public, commercial and industrial sites to cut emissions, and assisting policy and regulatory bodies to create a Net Zero energy market.

ISPF Allocation	ESC has an **ISPF allocation of £1.8m for 3 years** (0.6% of PO total), covering 7 programmes, plus delivery costs. All allocations and programmes are non-ODA.
Current Programmes	Currently (March 2024), ESC has a portfolio of **3 ISPF programmes** that are live or underway (according to Q4 2023/24 RODA data).
ISPF Awards	No awards have been made by current programmes.
ISPF Spend	**Past expenditure of £1.2m is already reported** across current programmes (excl. delivery costs), up to Q4 2023/24. A further £0.4m is forecast for these same programmes up to Q4 2024/25. None of the past expenditure is through awards (0% of programme total).
ODA/Non-ODA focus	Within the current portfolio, none of the programmes are with **ODA countries** and 3 are with **non-ODA** countries (India and Singapore).
ISPF Themes	Current programmes are tagged against **1ISPF Theme**: Resilient Planet (3 programmes).
Activity Types	Current programmes most commonly include **international collaborative academic research** (100%), and **international collaborative business-led RD&D** (67%).

Figure 40 ESC – Number of current programmes by partner country



Source: Technopolis based on RODA and Allocations data

C.11.2. ESC Portfolio Detail

Table 43 ESC – List and summary details of each ISPF Programme

Programme	Summary details / activities
Industrial Decarbonisation and Hydrogen - Harmonisation between the UK and South Africa	The aim of the project is to support the decarbonisation of industry in South Africa and promote collaboration between both countries through research and sharing expertise. This agenda is a high priority for both countries as industry is seen as a driver for hydrogen deployment, especially related to large infrastructure projects that could support other sectors, providing confidence in investment and visibility of longer-term ambitions. The project will: provide pathways to support decarbonisation of industry and surrounding regions/sectors and key enabling mechanisms; and highlight the role of government in facilitating and optimising plans related to hydrogen projects and industrial decarbonisation in South Africa through policy, regulation and alignment to different municipalities' plans.
UK-India Innovation for Net Zero Centre (decarbonising transport pillar)	Innovating for Transport and Energy Systems (ITES) will focus on enabling sustainable transport systems by carrying out joint applied research into clean transport challenges, and enable the demonstration, support and scaleup of new sustainable solutions. ITES will take a whole systems approach to challenges, considering all aspects – from consumer acceptance to business models, policy to supporting infrastructure.
Innovating for Net Zero Buildings	The aim is to promote the transition to net zero buildings in Singapore by demonstrating relevant technologies, accelerating research and environments that enable this and facilitating collaborative and commercial partnerships between UK and Singapore. This aligns with the Integrated Review by promoting the UK as a force for good and establishing bilateral relationships to address climate change. This project aligns with the Integrated Review's objectives on sustaining strategic advantage through science and technology by addressing multiple technologies related to energy efficiency, generation, cooling and mobility in buildings. It will expand the UK's capability by funding deeper research, knowledge exchange, exposure to international expertise and opportunities to demonstrate UK technology. It also aligns with shaping the open international order of the future, in working with international partners and building a foundation for strategic partnerships. The project will: • Develop and showcase through pilots, innovative solutions and transferable business models • Further research on net zero buildings and build capacity in UK and Singapore • Promote innovation testing and evidence-based policy making • Support scale up through close interaction with the private sector • Facilitate partnerships and commercial relationships beyond the life of the project • Establish a forum for dialogue and knowledge exchange

Source: Technopolis based on RODA and POs input, 2024

Table 44 ESC – Full portfolio

ODA / NON-ODA	Programme Title	Allocation (2022/23 - 2024/25)	ISPF themes	Supported Types of Activity								Primary Activity Type	Awards made	Spend Underway?	Total Expenditure (programme + award)	Total Forecast Expenditure (programme + award)	ODA partner countries	Non-ODA partner countries
				International Collaborative Academic	Translational Research & Impact Realisation	International mobility (incl. fellowships,	Institutional R&I capacity building	International Collaborative Business-investment in & access to infrastructure / facilities	Pump-priming	Networking and workshops								
Non-ODA	Industrial Decarbonisation and Hydrogen - Harmonisation between the UK and South Africa	£465,076.00	Resilient Planet	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research		Yes	£ 426,423	£19,233		None
Non-ODA	UK-India Innovation for Net Zero Centre (decarbonising transport pillar)	£777,500.00	Resilient Planet	☑	☐	☐	☐	☑	☐	☐	☐	International Collaborative Academic Research		Yes	£ 463,000	£314,463		IN
Non-ODA	Innovating for Net Zero Buildings	£383,243.00	Resilient Planet	☑	☐	☐	☐	☑	☐	☐	☑	International Collaborative Business-led RD&D		Yes	£ 330,243	£50,511		SG
Non-ODA	Singapore UK Collaboration for Energy System Innovation	£67,602.00	Resilient Planet | Transformative Technologies | Tomorrow's											No				SG
Non-ODA	UK-Korea: Hydrogen landscape and R&D collaboration opportunities study	£32,475.00	Resilient Planet											No				KR
Non-ODA	Energy System modelling for Net Zero - Taiwan	£32,000.00	Resilient Planet											No				TW
Non-ODA	Delivery Costs (for Singapore UK Collaboration for Energy System Innovation)	£3,350.00												Delivery				
Non-ODA	UK-BR-ID Hub – Connecting UK Science, Innovation & Technology	£47,250.00	Resilient Planet | Transformative Technologies | Tomorrow's											No				BR
Non-ODA	Delivery Costs (for UK-BR-ID Hub – Connecting UK Science, Innovation & Technology)	£2,500.00												Delivery				

Source: Technopolis based on RODA and POs input, 2024

C.12. Offshore Renewable Energy Catapult (OREC)

C.12.1. OREC Portfolio Overview

The **Offshore Renewable Energy Catapult (OREC)** is one of several Catapult Centres setup by Innovate UK, and focuses on technology innovation and research for offshore renewable energy. It provides support for SMEs, conducts research and innovation, joins academia and industry, and brings new products and services to market related to ORE.

ISPF Allocation	OREC has an **ISPF allocation of £1.0m for 3 years** (0.4% of PO total), covering 4 programmes, plus delivery costs. All allocations and programmes are non-ODA.
Current Programmes	Currently (March 2024), OREC has a portfolio of **2 ISPF programmes** that are live or underway (according to Q4 2023/24 RODA data).
ISPF Awards	No awards have been made by current programmes.
ISPF Spend	**Past expenditure of £0.4m is already reported** across current programmes (excl. delivery costs), up to Q4 2023/24. A further £0.4m is forecast for these same programmes up to Q4 2024/25. None of the past expenditure is through awards (0% of programme total).
ODA/Non-ODA focus	Within the current portfolio, none of the programmes are with **ODA countries** and 2 are with **non-ODA** countries (South Korea and Taiwan).
ISPF Themes	Current programmes are tagged against **1 ISPF Theme**: Resilient Planet (2 programmes).
Activity Types	Current programmes include **international collaborative academic research** (100%) and **networking and workshops** (50%).

C.12.2. OREC Portfolio Detail

Table 45 OREC – List and summary details of each ISPF Programme

Programme	Summary details / activities
Smart O&M platform development for offshore wind farm	This project is focused around reducing the LCOE of the UK offshore wind industry and as such the impact on UK climate change and sustainability goals is positive. The funding support will help to accelerate collaboration with KIER to develop the SMART O&M platform such that it can be deployed across UK fleets in the near future and climate change impacts are realised as soon as possible. The collaboration will aim to achieve the following: • Form a collaborative working relationship with KIER • Acquire data from Korean Wind Farms D • Develop machine learning algorithm-based condition monitoring tool development • Develop an offshore wind farm O&M platform development • Evaluated the cost effect • Conduct 2 workshops with KIER • Disseminate the results of the project
Taiwan Offshore Wind Technology Acceleration (TOWTA)	Data analysis framework to accelerate consenting process and support smart O&M for Offshore Wind (Programme). This project is to accelerate the planning and consenting process for offshore wind in achieving the net-zero goal in the UK and abroad, by establishing a data framework and collaborative platform for digital wind farms to improve operation and maintenance (O&M) expenditure.

Source: Technopolis based on RODA and POs input, 2024

Table 46 OREC – Full portfolio

ODA / NON-ODA	Programme Title	Allocation (2022/23 - 2024/25)	ISPF themes	Supported Types of Activity									Awards made	Spend Underway?	Total Expenditure (programme + award)	Total Forecast Expenditure (programme + award)	ODA partner countries	Non-ODA partner countries
				International Collaborative Academic	Translational Research & Impact Realisation	International mobility (incl. fellowships.	Institutional R&I capacity building	International Collaborative Business-	Investment in & access to infrastructure / facilities	Pump-priming	Networking and workshops	Primary Activity Type						
Non-ODA	Smart O&M platform development for offshore wind farm	£414,020.00	Resilient Planet	☑	☐	☐	☐	☐	☐	☐	☑	International Collaborative Academic Research		Yes	£ 245,980	£100,000		KR
Non-ODA	Taiwan Offshore Wind Technology Acceleration (TOWTA)	£12,000.00	Resilient Planet	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research		Yes	£ 125,933	£259,000		TW
Non-ODA	Delivery Costs (TOWTA)	£401,067.00												Delivery	£ 6,000	£6,000		
Non-ODA	GOWRA	£95,000.00	Resilient Planet | Transformative Technologies | Tomorrow's											No				TW
Non-ODA	Delivery Costs (for GOWRA)	£5,000.00												Delivery				
Non-ODA	UK-Brazil Floating Wind Research Collaboration	£95,000.00	Resilient Planet											No				BR
Non-ODA	Delivery Costs (for UK-Brazil Floating Wind Research Collaboration)	£5,000.00												Delivery				

Source: Technopolis based on RODA and POs input, 2024

C.13. The Faraday Institution (FI)

C.13.1. FI Portfolio Overview

The **Faraday Institution (FI)** is the UK's independent institute for electrochemical energy storage research, skills development, market analysis, and early-stage commercialisation. It brings together research scientists and industry partners on projects with commercial potential that will reduce battery cost, weight, and volume; improve performance and reliability, and develop whole-life strategies including recycling and reuse.

ISPF Allocation	The FI has an **ISPF allocation of £0.9m for 3 years** (0.3% of PO total), covering 1 programme, plus delivery costs. The allocations and programme are non-ODA.
Current Programmes	Currently (March 2024), FI has **no ISPF programmes** that are live or underway (according to Q4 2023/24 RODA data).
ISPF Awards	No awards have been made.
ISPF Spend	**No past expenditure is reported** on current programmes (excl. delivery costs), up to Q4 2023/24.

Table 47 FI – Full portfolio

ODA / NON-ODA	Programme Title	Allocation (2022/23 - 2024/25)	ISPF themes	Supported Types of Activity									Awards made	Spend Underway?	Total Expenditure (programme + award)	Total Forecast Expenditure (programme + award)	ODA partner countries	Non-ODA partner countries
				International Collaborative Academic	Translational Research & Impact Realisation	International mobility (incl. fellowships,	Institutional R&I capacity building	International Collaborative Business-	Investment in & access to infrastructure / facilities	Pump-priming	Networking and workshops	Primary Activity Type						
Non-ODA	UK-Japan Energy Storage Research Fellowship	£835,000.00	Transformative Technologies											No				JP
Non-ODA	Delivery Costs (for UK-Japan Energy Storage Research Fellowships)	£50,100.00												Delivery				

Source: Technopolis based on RODA and POs input, 2024

C.14. Arts and Humanities Research Council (AHRC)

C.14.1. AHRC Portfolio Overview

The **Arts and Humanities Research Council (AHRC)** is one of nine UK research councils within UKRI, focused on supporting research and postgraduate training in the arts and humanities.

ISPF Allocation	AHRC has an **ISPF allocation of £1.6m for 3 years** (0.6% of PO total), covering 3 programmes, plus delivery costs. ODA accounts for £0.5m and 2 programmes, non-ODA for £1.1m and 1.
Current Programmes	Currently (March 2024), AHRC has **no ISPF programmes** that are live or underway (according to Q4 2023/24 RODA data).
ISPF Awards	No awards have been made.
ISPF Spend	**No past expenditure is reported** on current programmes (excl. delivery costs), up to Q4 2023/24.

C.14.2. AHRC Portfolio Detail

Table 48 AHRC – List and summary details of each ISPF Programme

Programme	Summary details / activities
FDI into University R&D Campaign	A 2-year coalition of seventeen Midlands universities has launched a new £3m international campaign to attract Foreign Direct Investment (FDI) into university R&D and innovation. Leveraging existing global connections with international research partners, industry, and alumni, the campaign targets six priority markets to boost economic growth in five core sectors. Supported by DSIT, GREAT, SIN, FCDO, and UKRI, this pilot will develop market-ready propositions to drive international investment into the region's universities and enhance their science and innovation opportunities.

Source: Technopolis based on RODA and POs input, 2024

Table 49 AHRC – Full portfolio

ODA / NON-ODA	Programme Title	Allocation (2022/23 - 2024/25)	ISPF themes	Supported Types of Activity									Awards made	Spend Underway?	Total Expenditure (programme + award)	Total Forecast Expenditure (programme + award)	ODA partner countries	Non-ODA partner countries
				International Collaborative Academic	Translational Research & Impact Realisation	International mobility (incl. fellowships,	Institutional R&I capacity building	International Collaborative Business-	Investment in & access to infrastructure / facilities	Pump-priming	Networking and workshops	Primary Activity Type						
ODA	Delivery Costs (for ODA)	£106,286.34												Delivery	£ 32,927	£75,000	None	
Non-ODA	FDI into University R&D Campaign	£992,020.96	Transformative Technologies	☑	☐	☐	☐	☑	☐	☑	☐	Pump-priming	1	No	£ -	£992,021		AU; DE; JP; SG; KR; US
Non-ODA	Delivery Costs (for non-ODA)	£106,286.34												Delivery	£ 32,927	£75,000		
ODA	Scoping Inclusive Innovation for Global Progress (ISPF-260)	£200,000.00	Tomorrow's Talent											No			BR; MY	
ODA	AHRC-UKRI Africa Initiative: Scoping for Positive Action (ISPF-259)	£200,000.00	Tomorrow's Talent											No			KE; ZA	

Source: Technopolis based on RODA and POs input, 2024

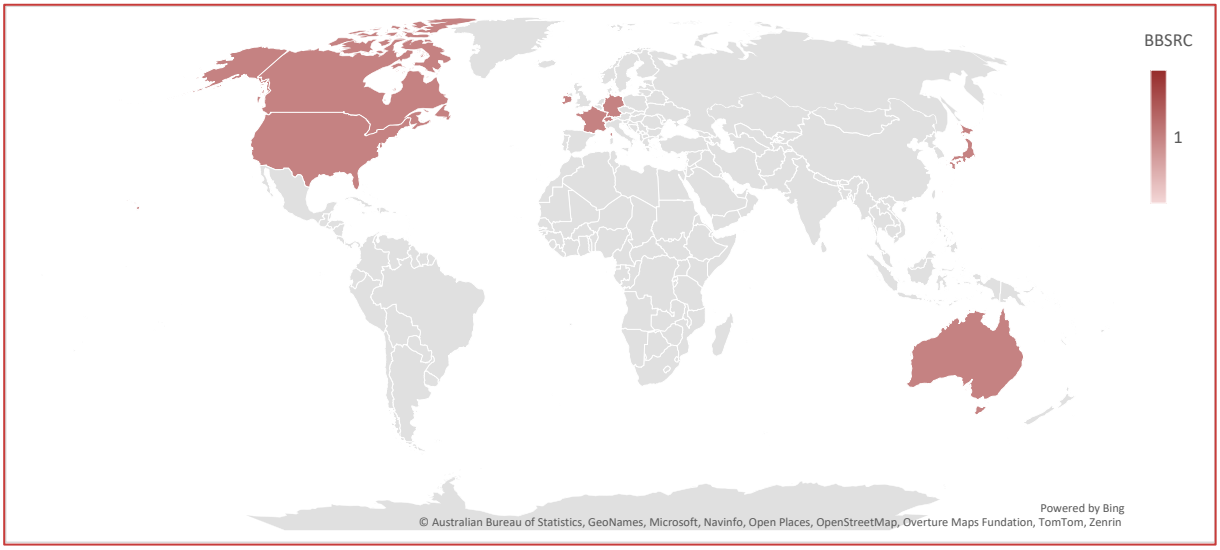
C.15. Biotechnology and Biological Sciences Research Council (BBSRC)

C.15.1. BBSRC Portfolio Overview

The **Biotechnology and Biological Sciences Research Council (BBSRC)** is one of nine UK research councils within UKRI, focused on research and training in the biosciences. They fund research in agriculture, food security, biotechnology and health, communicate research outcomes, and encourage public awareness and engagement.

ISPF Allocation	BBSRC has an **ISPF allocation of £9.9m for 3 years** (3% of PO total), covering 7 programmes, plus delivery costs. ODA accounts for £0.5m and 2 programmes, non-ODA for £9.4m and 5.
Current Programmes	Currently (March 2024), BBSRC has a portfolio of **2 ISPF programmes** that are live or underway (according to Q4 2023/24 RODA data).
ISPF Awards	Awards have been made by 2 of these programmes (**33 awards** in total).
ISPF Spend	**Past expenditure of £1.0m is already reported** across current programmes (excl. delivery costs), up to Q4 2023/24. A further £6.2m is forecast for these same programmes up to Q4 2024/25. £0.3m of past expenditure is through awards (26% of programme total).
ODA/Non-ODA focus	Within the current portfolio, none of the programmes are with **ODA countries** and 2 are with **non-ODA** countries. See figure below.
ISPF Themes	Current programmes are tagged against **2 ISPF Themes**: Transformative Technologies (2 programmes) and Resilient Planet (1).
Activity Types	Current programmes include **international collaborative academic research** (100%), and **international collaborative business-led RD&D** (50%).

Figure 41 BBSRC – Number of current programmes by partner country



Source: Technopolis based on RODA and Allocations data

C.15.2. BBSRC Portfolio Detail

Table 50 BBSRC – List and summary details of each ISPF Programme

Programme	Summary details / activities
Sustainable and Resilient Aquaculture Systems in Southeast Asia	This interdisciplinary research programme will focus on enhancing the sustainability, resilience and productivity of aquaculture systems in Southeast Asia for economic and sustainable development. The programme aims to improve food and nutrition security, the natural environment and climate, local community wellbeing, livelihoods and economic development that specifically adapt and build aquaculture systems that: 1) are resilient to climate change and environmental variability, and that also protect and enhance the natural environment, whilst improving the lives of local communities; 2) reduce losses of production due to disease whilst improving animal health and welfare, human health and wellbeing, plant health, and the aquatic environment.
AI for Bioscience	This International Partnering Award Plus (IPAP) scheme focused on supporting AI projects that will benefit the bioscience aims to pump prime collaborations between the UK and Australia, Canada, France, Germany, Japan, USA, and Switzerland. It will leverage expertise and data resources to accelerate scientific discovery, enable breakthroughs, and realise the transformative impact from applications of AI technologies in bioscience areas of interest such as health, agriculture, food, manufacturing, clean growth and fundamental biology.
Japan-UK Engineering Biology for Discovery-led Research and Cross-Cutting Technologies	This bilateral programme focuses on supporting joint projects between UK and Japan on the fundamentals of Engineering Biology & cross-cutting technologies. Building on past BBSRC investment to pump-prime UK-Japanese collaborations in synthetic genomes & cells and on JST' s CREST programme in synthetic genomes, it will accelerate scientific discovery in an emerging technology area with benefits to both countries.
Singapore - UK Engineering Biology-Missions-Clean Growth, Environmental Solutions & Food Systems	This bilateral programme with Singapore NRF is part of ISPF Engineering Biology series of programmes. It will pump-prime research collaboration to develop platform technologies and biotechnological processes for specialty chemical production (TRL 1-4). It aligns with the UK's National Engineering Biology Programme goals in "Clean Growth," "Environmental Solutions," and "Food Systems." The 18-month initiative will fund a UK-based virtual consortium to build a strong, internationally competitive, collaborative network with Singapore's National Centre for Engineering Biology (NCEB), leveraging Singapore's expertise in biomanufacturing and specialty chemicals.
India-UK partnership to address farmed animal diseases and health	This programme funds joint research in animal and veterinary science including pathogen and host biology and antimicrobial resistance. A key goal is to develop new insights, approaches and technologies that support the needs of users, such as the industry, local communities, and national, state, and local policymakers and regulators in the UK and India.
The Co-Centre Programme (Ireland) (BBSRC component)	The Co-Centre programme for Collaboration for Transformative Research and Innovation is an opportunity for academia and industry to build strategic and collaborative partnerships across the Republic of Ireland, Great Britain and Northern Ireland through the formation of virtual Co-Centre to perform cutting-edge research in areas of mutual economic, societal, health and environmental importance. It is a 6-year programme consisting of two Co-Centres, the first will focus on tackling climate change challenges, while the other will develop solutions for sustainable and resilient food systems. It is jointly funded with up to €40m from Science Foundation Ireland (SFI), and up to £17 million from Northern Ireland's Department of Agriculture, Environment and Rural Affairs, and co-funded by industry.
Sustainable and Resilient Aquaculture Systems in Southeast Asia	This interdisciplinary research programme will focus on enhancing the sustainability, resilience and productivity of aquaculture systems in Southeast Asia for economic and sustainable development. It aims to improve food and nutrition security, the natural environment and climate, local community wellbeing, livelihoods and economic development that specifically adapt and build aquaculture systems that: 1) are resilient to climate change and environmental variability, and that also protect and enhance the natural environment, whilst improving the lives of local communities; 2) reduce losses of production due to disease whilst improving animal health and welfare, human health and wellbeing, plant health, and the aquatic environment

Source: Technopolis based on RODA and POs input, 2024

Table 51 BBSRC – Full portfolio

ODA / NON-ODA	Programme Title	Allocation (2022/23 - 2024/25)	ISPF themes	Supported Types of Activity									Awards made	Spend Underway?	Total Expenditure (programme + award)	Total Forecast Expenditure (programme + award)	ODA partner countries	Non-ODA partner countries
				International Collaborative Academic	Translational Research & Impact Realisation	International mobility (incl. fellowships,	Institutional R&I capacity building	International Collaborative Business-Investment in & access to infrastructure / facilities	Pump-priming	Networking and workshops	Primary Activity Type							
ODA	Delivery Costs (for ODA)	£216,490.82												Delivery	£ 133,593	£150,000		
ODA	Sustainable Aquaculture	£256,200.00	Resilient Planet | Healthy People, Animals & Plants	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research		No	£ -	£610,000	ID; MY; PH; TH; VN	
Non-ODA	AI for Bioscience	£6,250,000.00	Transformative Technologies	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research	32	Yes	£ 725,945	£5,088,577		AU; CA; FR; DE; JP; CH; US
Non-ODA	Engineering Biology-Discovery-Inspired R&I	£416,000.00	Transformative Technologies	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research		No	£ -	£416,000		JP
Non-ODA	Engineering Biology-Missions-Clean Growth, Environmental Solutions & Food Systems	£0.00	Transformative Technologies	☑	☐	☐	☑	☐	☐	☑	☐	Pump-priming		No	£ -	£250,000		SG
Non-ODA	Farmed Animal Diseases and Health	£1,112,500.00	Healthy People, Animals & Plants	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research		No	£ -	£1,512,500		IN
Non-ODA	The Co-Centre Programme (Ireland) (BBSRC component)	£1,253,602.00	Resilient Planet | Transformative Technologies	☑	☐	☐	☐	☑	☐	☐	☐	International Collaborative Academic Research	1	Yes	£ 260,747	£1,077,198		IE
Non-ODA	Delivery Costs (for non-ODA)	£324,742.78												Delivery	£ 97,695	£225,000		
ODA	Affordable Proteins (ISPF-261)	£50,000.00	Healthy People, Animals & Plants											No			KE; LDCs	

Source: Technopolis based on RODA and POs input, 2024

C.16. Economic and Social Research Council (ESRC)

C.16.1. ESRC Portfolio Overview

The **Economic and Social Research Council (ESRC)** is one of nine UK research councils within UKRI, focused on research and training in the social sciences. Its activities include funding research and training, developing national data infrastructure, and promoting the public understanding of social science.

ISPF Allocation	ESRC has an **ISPF allocation of £2.2m for 3 years** (0.8% of PO total), covering 2 programmes, plus delivery costs. ODA accounts for £0.5m and 1 programme, non-ODA for £1.7m and 1.
Current Programmes	Currently (March 2024), ESRC has **no ISPF programmes** that are live or underway (according to Q4 2023/24 RODA data).
ISPF Awards	No awards have been made.
ISPF Spend	**No past expenditure is reported** on current programmes (excl. delivery costs), up to Q4 2023/24.

C.16.2. ESRC Portfolio Detail

Table 52 ESRC – List and summary details of each ISPF Programme

Programme	Summary details / activities
International Joint Initiative for Research in Climate Change Adaptation and Mitigation	This call is leveraging international expertise to tackle the global challenges caused by climate change. It aims to further the design and implementation of co-produced adaptation and mitigation strategies for vulnerable groups, strengthening the connections between research, governance, and communities, to ensure that funded projects are both transformative and impactful. Vulnerable groups are those currently most impacted by the effects of climate change, owing to both: physical vulnerability and socioeconomic vulnerability, or to conflict security and fragility. The opportunity is supporting international teams to conduct research that is both interdisciplinary and trans-sectoral.

Source: Technopolis based on RODA and POs input, 2024

Table 53 ESRC – Full portfolio

ODA / NON-ODA	Programme Title	Allocation (2022/23 - 2024/25)	ISPF themes	Supported Types of Activity								Awards made	Spend Underway?	Total Expenditure (programme + award)	Total Forecast Expenditure (programme + award)	ODA partner countries	Non-ODA partner countries
				International Collaborative Academic	Translational Research & Impact Realisation	International mobility (incl. fellowships,	Institutional R&I capacity building	International Collaborative Business-	Investment in & access to infrastructure / facilities	Pump-priming	Networking and workshops	Primary Activity Type						
ODA	Delivery Costs (for ODA)	£341,885.00												Delivery	£ -	£112,500		
Non-ODA	International Joint Initiative for Research in Climate Change Adaptation and Mitigation	£1,500,000.00	Resilient Planet	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research		No	£ -	£2,025,000		CA; US; CH; DE
Non-ODA	Delivery Costs (for non-ODA)	£212,783.00												Delivery	£ -	£67,000		
ODA	Global Talent Placement (GTP) PILOT (ISPF-265)	£159,870.34	Tomorrow's Talent											No			BR	

Source: Technopolis based on RODA and POs input, 2024

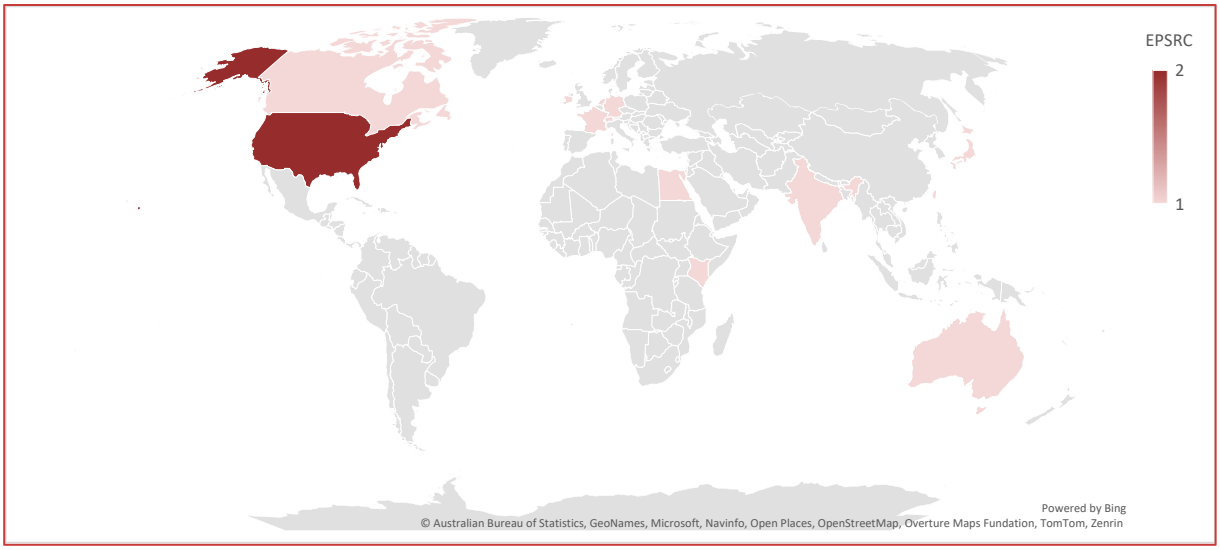
C.17. Engineering and Physical Sciences Research Council (EPSRC)

C.17.1. EPSRC Portfolio Overview

The **Engineering and Physical Science Research Council (EPSRC)** is one of nine UK research councils within UKRI, focused on research and training in engineering and physical sciences. It funds research, fellowships, research commercialisation, public engagement, infrastructure, and international collaborations.

ISPF Allocation	EPSRC has an **ISPF allocation of £11.3m for 3 years** (4% of PO total), covering 10 programmes, plus delivery costs. ODA accounts for £0.6m and 1 programme, non-ODA for £10.8m and 9.
Current Programmes	Currently (March 2024), EPSRC has a portfolio of **4 ISPF programmes** that are live or underway (according to Q4 2023/24 RODA data).
ISPF Awards	Awards have been made by 4 of these programmes (**49 awards** in total).
ISPF Spend	**Past expenditure of £0.8m is already reported** across current programmes (excl. delivery costs), up to Q4 2023/24. A further £5.9m is forecast for these same programmes up to Q4 2024/25. £0.8m of past expenditure is through awards (100% of programme total).
ODA/Non-ODA focus	Within the current portfolio, 1 programme is with **ODA countries** and 3 are with **non-ODA** countries. See figure below.
ISPF Themes	Current programmes are tagged against **3 ISPF Themes**: Resilient Planet (4 programmes), Transformative Technologies (1), and Healthy People, Animals & Plants (1).
Activity Types	Current programmes include **international collaborative academic research** (100%).

Figure 42 EPSRC – Number of current programmes by partner country



Source: Technopolis based on RODA and Allocations data

C.17.2. EPSRC Portfolio Detail

Table 54 EPSRC – List and summary details of each ISPF Programme

Programme	Summary details / activities
EPSRC Early Career Researcher Collaborations for Global Development	The scheme is targeted at UK-based early career researchers to develop international partnerships through joint research activities in organisations based in ODA partner countries, working in areas with global development outcomes and to tackle challenges faced by LMICs.
Advanced Materials	A series of advanced materials projects will tackle large scale global research challenges, and support delivery of UN sustainability goals. Applications will principally focus on the physical science or engineering of materials to deliver beneficial and enhanced properties. Incorporation into devices or use in applications can be addressed, but not form the bulk of the work.
Early career researcher international collaboration grants	This scheme is targeted at UK-based researchers who are at an early career stage (first lectureship post or equivalent) to initiate or develop new international partnerships with researchers overseas. This focus on ECRs (early career researchers) recognises that they have been disproportionately impacted by the pandemic in terms of impacts on developing international relationships with overseas colleagues, as they build their professional networks at early stages of their career. We anticipate that this will benefit the UK research community by setting the foundations for future mutually beneficial research partnerships across ISPF priority areas through enhancing joint UK-international research endeavours and community networks.
Global Centres in clean energy and climate change	Led by the US National Science Foundation (NSF) and implemented in partnership with like-minded international funders, the Global Centers programme encourages and supports large-scale collaborative research on use-inspired themes in clean energy and climate change which foster solutions to address the global climate crisis. UKRI funding for this opportunity will be utilised to create an ecosystem of global centres which thrive on international partnership. Specifically funding is available for UK based researchers to create partnerships which must contain a partner in the US and could also include partners in Canada or Australia.
EPSRC Japan semi-conductors	This international joint funding will support research projects in the field of semiconductors. The programme will focus on areas of joint interest including low-power hardware, power devices, security by design and semiconductor photonics. The programme will accelerate scientific discovery in a strategically important priority technology area for both countries.
UK-Japan Civil Nuclear	The UK Japan Civil Nuclear Research Programme 2023 is a jointly funded opportunity between EPSRC and MEXT, aiming to target key challenges in the decommissioning of both Fukushima and Sellafield nuclear power plants. It supports advances in knowledge which will support the UK's ambition to ramp up nuclear capacity in the UK to 24GW by 2050. There is a need to research ways into decommissioning plants in an easier, safer, more cost effective and sustainable way. This research will increase our knowledge on how to decommission these new reactors once they reach end of life, helping to find solutions in decommissioning our current legacy nuclear power plants. These research challenges are fundamental for the successful decommissioning of the two sites and will help pave the way for cleanup and decommissioning of future reactors and help strengthen our ties with Japan.
UK-Canada Partnership on Heterogeneous Integration	Compound Semiconductors and Advanced Packaging
UK-India Future Telecoms Research	International joint funding opportunity to support research projects in Telecommunications and accelerate scientific discovery and innovation in a strategic priority area for both countries. The opportunity is aiming to support projects to further develop and strengthen the network and research collaboration between UK- and India-based researchers. Projects are expected to link and run concurrently with the continuation of the UK-India Future Networks Initiative.
UK-USA AI Partnership Programme	This program connects UK and US researchers to tackle challenges in AI research, including data ethics, algorithmic bias, and explainability, integrating AI with other disciplines that embed these principles. Funding will support lab-to-lab collaborations, research grants, and exchanges with US partners. It aims to enhance the UK's leadership in responsible AI by establishing strong ties with top US collaborators and shaping global discussions on responsible AI practices.
UK-USA partnership on Quantum Chemistry	UK-US research partnerships that explore the role of QIS concepts in chemical systems, or that leverage QIS concepts to advance chemistry research.

Source: Technopolis based on RODA and POs input, 2024

Table 55 EPSRC – Full portfolio

ODA / NON-ODA	Programme Title	Allocation (2022/23 - 2024/25)	ISPF themes	Supported Types of Activity								Primary Activity Type	Awards made	Spend Underway?	Total Expenditure (programme + award)	Total Forecast Expenditure (programme + award)	ODA partner countries	Non-ODA partner countries
				International Collaborative Academic	Translational Research & Impact Realisation	International mobility (incl. fellowships,	Institutional R&I capacity building	International Collaborative Business-	Investment in & access to infrastructure / facilities	Pump-priming	Networking and workshops							
ODA	EPSRC Early Career Researcher Collaborations for Global Development	£339,747.00	Resilient Planet	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research	3	Yes	£ 36,288	£269,771	EG; KE	
ODA	Delivery Costs (for ODA)	£217,000.00												Delivery	£ 41,602	£150,000		
Non-ODA	Advanced Materials	£417,000.00	Transformative Technologies	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research		No	£ -	£0		JP
Non-ODA	Early career researcher international collaboration grants	£5,744,683.00	Resilient Planet | Transformative Technologies | Healthy People, Animals & Plants	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research	4	Yes	£ 166,650	£3,638,071		AU; CA; FR; DE; IN ; IE; IL; NL; SG; CH; TW; US
Non-ODA	Global Centers: Use-Inspired Research Addressing Global Challenges in Climate Change and Clean Energy	£2,400,000.00	Resilient Planet	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research	4	Yes	£ 424,997	£1,551,378		US
Non-ODA	Japan semi-conductors	£570,000.00	Transformative Technologies	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research		No	£ -	£570,000		JP
Non-ODA	UK Japan Civil Nuclear Research Programme 2023	£600,000.00	Resilient Planet	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research	2	Yes	£ 187,076	£391,306		JP
Non-ODA	UK-Canada Partnership on Heterogeneous Integration	£0.00	Transformative Technologies	☐	☐	☐	☐	☐	☐	☐	☑	Networking and workshops		No	£ -	£83,500		CA
Non-ODA	UK-India Future Telecoms Research	£250,000.00	Transformative Technologies	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research		No	£ -	£250,000		IN
Non-ODA	UK-USA AI Partnership Programme	£450,000.00	Transformative Technologies	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research		No	£ -	£450,000		US; CA
Non-ODA	UK-USA partnership on Quantum Chemistry	£0.00	Transformative Technologies	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research		No	£ -	£167,000		US
Non-ODA	Delivery Costs (for non-ODA)	£325,000.00												Delivery	£ -	£225,000		

Source: Technopolis based on RODA and POs input, 2024

C.18. Innovate UK (IUK)

C.18.1. IUK Portfolio Overview

Innovate UK (IUK) is one of nine UK research councils within UKRI, focused on business-led innovation across the UK. It provides funding, expertise, and networking opportunities to help companies commercialise new technology.

ISPF Allocation	IUK has an **ISPF allocation of £55.6m for 3 years** (20% of PO total), covering 9 programmes, plus delivery costs. ODA accounts for £48.2m and 1 programme, non-ODA for £7.3m and 8.
Current Programmes	Currently (March 2024), IUK has a portfolio of **5 ISPF programmes** that are live or underway (according to Q4 2023/24 RODA data).
ISPF Awards	Awards have been made by 4 of these programmes (**72 awards** in total).
ISPF Spend	**Past expenditure of £19.6m is already reported** across current programmes (excl. delivery costs), up to Q4 2023/24. A further £17.5m is forecast for these same programmes up to Q4 2024/25. £12.5m of past expenditure is through awards (64% of programme total).
ODA/Non-ODA focus	Within the current portfolio, 1 programme is with **ODA countries** and 4 are with **non-ODA** countries. See figure below.
ISPF Themes	Current programmes are tagged against **2 ISPF Themes**: Transformative Technologies (4 programmes) and Resilient Planet (1).
Activity Types	Current programmes most commonly include **international collaborative business-led RD&D** (100%).

Figure 43 IUK – Number of current programmes by partner country

Source: Technopolis based on RODA and Allocations data

C.18.2. IUK Portfolio Detail

Table 56 IUK – List and summary details of each ISPF Programme

Programme	Summary details / activities
Energy Catalyst Programme	The Energy Catalyst programme supports innovative organisations to find new commercial solutions that help provide clean, affordable and secure energy in sub-Saharan Africa, South and South East Asia. It will support highly innovative, market-focused energy solutions in any technology or sector. They must be targeted at people, public services and local enterprises who are unable to afford or access existing solutions, or who lack the time or expertise to successfully use those solutions. Grant funding will be provided to support businesses to undertake research, development and innovation activity on innovative products or services, business models and processes. Incubation support will also be provided to help some businesses to take their innovations to market faster, as well as further support to enable access to investors and customers and maximise the potential created.
Innovate UK KTN Boosting UK collaboration in Horizon Europe projects	To boost UK participation and enhance research and innovation collaboration through Horizon Europe. A targeted communications and (re)engagement campaign to support HMG efforts to give clear messaging to the UK and key EU organisations to (re)establish the UK as a desirable and reliable partner for Horizon Europe. We are currently working on an engagement plan of activity that is aligned with Innovate UK and SIN priorities to increase UK participation.
Quantum Technologies UK-Canada	The aim is to support UK business global growth and scaling through innovation in quantum technologies by funding UK businesses-led R&D projects that collaborate with organisations in Canada. The programme builds on two Innovate UK collaborative R&D&I funding competitions in quantum technologies with NSERC and NRC and continues to build the relationship ensuring the UK and Canada are best placed to maximise the commercial potential of quantum technologies.
Semiconductors - Japan, Taiwan, Canada	The aim is to support UK business global growth and scaling through innovation in semiconductors by funding UK businesses-led R&D projects that collaborate with organisations in Japan, Taiwan and Canada. These countries have considerable R&I and business strengths in the field, while the UK has leading strengths in high value, low volume compound semiconductors, providing complementary capability. The programme will build on existing relationships with Canada, Japan and Taiwan and provide the opportunity to establish new R&D and innovation partnerships and collaborations.
UK-Singapore Joint R&D&I programme	The aim is to support UK business global growth and scaling through innovation in technologies in key sector and technology areas, by funding UK businesses-led R&D projects that collaborate with organisations in Singapore. Harnessing additional investment from ISPF, the programme builds on strengths in both countries, covering areas such as advanced manufacturing & materials, agrifood technology, mobility & transport, cyber security and health & life sciences.
South Korea Joint R&D&I Programme	Three calls within one programme • The aim of this call is to support UK business global growth and scaling through innovation in technologies in key sector and technology areas, by funding UK businesses-led R&D projects that collaborate with organisations in South Korea. Harnessing additional investment from ISPF, the programme builds on strengths in both countries, covering areas such as advanced manufacturing and materials, AI, and clean energy (with a particular focus on hydrogen and battery technologies). • The aim of this call is to support UK business global growth and scaling through innovation in digital health by funding UK businesses-led R&D projects that collaborate with academic institutions and organisations in South Korea. • The aim of this call is to support UK business global growth and scaling through innovation in smart cities by funding UK businesses-led R&D projects that collaborate with organisations in South Korea.
Taiwan Joint R&D&I Programme	The aim of this call is to support UK business global growth and scaling through innovation in technologies in key sector and technology areas, by funding UK businesses-led R&D projects that collaborate with Taiwan. Harnessing additional investment from ISPF, the programme builds on strengths in both countries, covering areas such as smart cities, clean energy, advanced manufacturing, digital technologies, biotechnologies and semiconductors.
Transformative Technologies - Germany	A programme focused on R&D&I collaboration between UK and German SMEs in the areas of AI, quantum, semiconductors, engineering biology and future telecoms. The programme builds on the existing collaboration between Innovate UK and AiF (working through the ZIM programme) and provides funding for projects and advisory support to accelerate getting emerging technologies into the global market.

Source: Technopolis based on RODA and POs input, 2024

Table 57 IUK – Full portfolio

ODA / NON-ODA	Programme Title	Allocation (2022/23 - 2024/25)	ISPF themes	Supported Types of Activity									Awards made	Spend Underway?	Total Expenditure (programme + award)	Total Forecast Expenditure (programme + award)	ODA partner countries	Non-ODA partner countries
				International Collaborative Academic	Translational Research & Impact Realisation	International mobility (incl. fellowships,	Institutional R&I capacity building	International Collaborative Business-	Investment in & access to infrastructure / facilities	Pump-priming	Networking and workshops	Primary Activity Type						
ODA	Energy Catalyst Programme	£45,186,140.57	Resilient Planet	☐	☐	☐	☐	☑	☐	☐	☐	International Collaborative Business-led RD&D	54	Yes	£ 16,964,272	£12,243,318	None	
ODA	Delivery Costs (for ODA)	£1,541,300.00												Delivery	£ 281,549	£1,508,300		
Non-ODA	Innovate UK KTN Boosting UK collaboration in Horizon Europe projects	£249,945.00	Resilient Planet | Transformative Technologies	☐	☐	☐	☐	☑	☐	☐	☐	International Collaborative Business-led RD&D		Yes	£ 101,933	£103,024		FR; DE; IL; NL
Non-ODA	Quantum Technologies UK-Canada	£0.00	Transformative Technologies	☐	☐	☐	☐	☑	☐	☐	☐	International Collaborative Business-led RD&D		No	£ -	£250,000		CA
Non-ODA	Semiconductors - Japan, Taiwan, Canada	£350,000.00	Transformative Technologies	☐	☐	☐	☐	☑	☐	☐	☐	International Collaborative Business-led RD&D		No	£ -	£166,667		CA; JP; TW
Non-ODA	Singapore Joint R&D&I programme	£1,950,000.00	Transformative Technologies	☐	☐	☐	☐	☑	☐	☐	☐	International Collaborative Business-led RD&D	1	Yes	£ 1,231,210	£2,235,974		SG
Non-ODA	South Korea Joint R&D&I Programme	£2,072,000.00	Transformative Technologies	☑	☐	☐	☑	☑	☐	☐	☑	International Collaborative Business-led RD&D	6	Yes	£ 1,149,133	£2,150,847		KR
Non-ODA	Taiwan Joint R&D&I Programme	£500,000.00	Transformative Technologies	☐	☐	☐	☐	☑	☐	☐	☐	International Collaborative Business-led RD&D	2	Yes	£ 148,312	£784,840		TW
Non-ODA	Transformative Technologies - Germany	£895,000.00	Transformative Technologies	☐	☐	☐	☐	☑	☐	☐	☐	International Collaborative Business-led RD&D		No	£ -	£1,000,000		DE
Non-ODA	Delivery Costs (for non-ODA)	£461,950.00												Delivery	£ -	£328,950		
ODA	Delivery Costs (for Innovation & Commercilisation - Energy Catalyst Programme)	£1,508,300.00												Delivery			None	
Non-ODA	Delivery Costs (for European Quantum Technologies Programme)	£52,500.00												Delivery				FR; DE; IE; NL
Non-ODA	European Quantum Technologies Programme	£802,500.00	Transformative Technologies											No				FR; DE; IE; NL

Source: Technopolis based on RODA and POs input, 2024

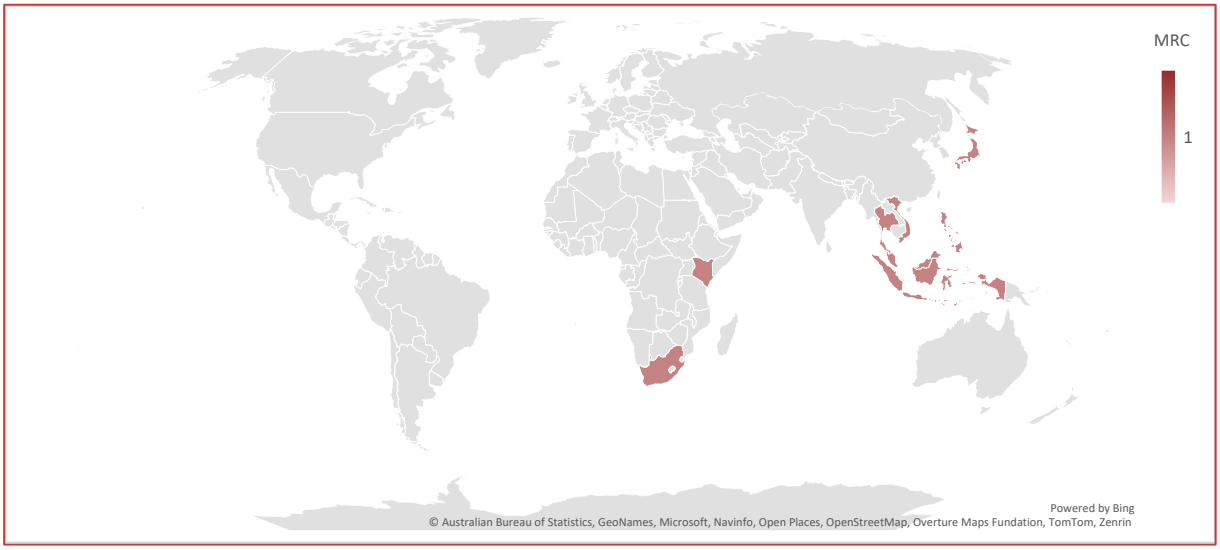
C.19. Medical Research Council (MRC)

C.19.1. MRC Portfolio Overview

The **Medical Research Council (MRC)** is one of nine UK research councils within UKRI, focused on research aimed at improving human health. Research includes infections and immunity, molecular and cellular medicine, neurosciences and mental health, population and systems medicine, global health, and translational research, carried out at universities and hospitals.

ISPF Allocation	MRC has an **ISPF allocation of £19.2m for 3 years** (7% of PO total), covering 10 programmes, plus delivery costs. ODA accounts for £15.6m and 5 programmes, non-ODA for £3.7m and 5.
Current Programmes	Currently (March 2024), MRC has a portfolio of **4 ISPF programmes** that are live or underway (according to Q4 2023/24 RODA data).
ISPF Awards	Awards have been made by 3 of these programmes (**16 awards** in total).
ISPF Spend	**Past expenditure of £2.5m is already reported** across current programmes (excl. delivery costs), up to Q4 2023/24. A further £9.0m is forecast for these same programmes up to Q4 2024/25. £2.4m of past expenditure is through awards (98% of programme total).
ODA/Non-ODA focus	Within the current portfolio, 3 programmes are with **ODA countries** and 1 is with **non-ODA** countries. See figure below.
ISPF Themes	Current programmes are tagged against **2 ISPF Themes**: Healthy People, Animals & Plants (4 programmes) and Nurturing Tomorrow's Talent (2).
Activity Types	Current programmes most commonly include **institutional R&I capacity building** (75%), and **international collaborative academic research** (75%).

Figure 44 MRC – Number of current programmes by partner country



Source: Technopolis based on RODA and Allocations data

C.19.2. MRC Portfolio Detail

Table 58 MRC – List and summary details of each ISPF Programme

Programme	Summary details / activities
ISPF Fund for Global Health Impact and Capacity Building	The programme aims to fund and support high quality, timely and strategic ISPF-relevant grants. These grants will focus on global health research as well as capacity strengthening within all eligible LMICs (e.g., not India, China) with a priority focus on ISPF ODA countries and LDCs.
Global Vaccines Network	Five interdisciplinary and multinational networks addressing key challenges in early-stage vaccine development for infectious diseases impacting LMICs through a One Health perspective, and developing research capacity and training opportunities. They offer pump-priming grants to facilitate collaborations between UK and LMICs, training grants for early career researchers, travel grants, courses, mentorship and networking activities.
South Africa NCD's/Mental Health/Infectious Diseases	A joint research programme to promote collaboration between South African, African, and British researchers in the areas of noncommunicable diseases (including mental health), one health, and multimorbidity research. This activity will be led and delivered by SAMRC, who will issue research grants that are led by South African investigators with UK-based co-investigators. Working in this way will promote equitable partnerships within the projects and ensure that the research funding delivers on the priorities of the primary beneficiary country involved (South Africa).
UKRI Southeast Asia (including Singapore) OHPP	This programme aims to alleviate the burden of infectious diseases with AMR or epidemic / pandemic potential in Southeast Asia and contribute to disease resilience, through spread prediction, control and eradication, to ensure a healthier population worldwide. It will support regional potentially multilateral research collaborations encouraging a One Health approach and interdisciplinary teams. We are delivering a networking event in Bangkok, in partnership with the Foreign, Commonwealth and Development Office and the British Embassy in Bangkok. This precedes the launch of a substantial funding opportunity (£21m from ISPF ODA).
Global Health call with Brazil	FAPESP and MRC are providing matched funding for UK-Brazil (Sao Paulo) research teams to collaborate on AI research for health applications that are relevant to Brazil and will improve human health, advance health-related discovery science or address barriers to the use of AI in health. It will enable the pursuit of shared research interests in addressing artificial intelligence (AI) for biomedical and health applications that are relevant to Brazil.
China UK One Health research for epidemic preparedness and AMR	This initiative builds on previous engagement between the UK and China and represents the third Flagship Challenge between the countries to enrich the science and innovation collaboration between their research communities. This initiative will provide bilateral funding for high quality collaborative research partnerships between China and the UK. It will focus on addressing the growing global burden of antimicrobial resistance, and infectious disease with epidemic potential.
Engineering Biology for Novel Therapies and Diagnostics	This collaboration is between the UK Medical Research Council (MRC) and the Japan Agency for Medical Research and Development (AMED) and aims to support collaborative research grant funding in the field of 'Engineering Biology for Novel Therapies and Diagnostics'. The aim is to support the development and enhancement of Japan-UK collaborations, with a strong focus on international talent mobility, in the area of engineering biology for novel therapies and diagnostics, through joint funding for 3-year collaborative research grants.
Institute to Institute Health collaboration with Helmholtz, Germany	The IIRCC will leverage international and interdisciplinary expertise to tackle the global challenges caused by climate change and aims to further the design and implementation of co-produced adaptation and mitigation strategies for vulnerable groups. ISPF funds will be used to support the participation of UK research teams in large multinational consortia. Funding will be used for a range of activities including researcher exchange, small scale joint research including pilot studies, research facility access, and further joint workshops.
Japan UK research collaboration in neuroscience, neurodegenerative diseases and dementia	This aims to support research projects that address major questions in the fields of neuroscience, neurodegenerative disease and dementia, leveraging strengths of researchers in both the UK and Japan. It is expected that project outcomes will lead to next-generation neuroscience research focusing on: human brain repair; new therapeutic options for neurodegenerative diseases with cognitive decline, such as dementia; and understanding the underpinning mechanisms of neurodegenerative disease and dementia and associated mental health conditions.
UK US Cancer Fellowship	A transatlantic training programme to promote ideas and partnerships in cancer research, including data science, prevention and health equity, through 6-12-month placements in National Cancer Institute labs. The programme will develop future leaders in cancer research who will build sustainable partnerships as they move towards leadership roles and research independence.

Source: Technopolis based on RODA and POs input, 2024

Table 59 MRC – Full portfolio

ODA / NON-ODA	Programme Title	Allocation (2022/23 - 2024/25)	ISPF themes	Supported Types of Activity								Primary Activity Type	Awards made	Spend Underway?	Total Expenditure (programme + award)	Total Forecast Expenditure (programme + award)	ODA partner countries	Non-ODA partner countries
				International Collaborative Academic	Translational Research & Impact Realisation	International mobility (incl. fellowships,	Institutional R&I capacity building	International Collaborative Business-Investment in & access to infrastructure / facilities	Pump-priming	Networking and workshops								
ODA	ISPF Fund for Global Health Impact and Capacity Building	£8,047,956.83	Healthy People, Animals & Plants | Tomorrow's Talent	☑	☐	☐	☑	☐	☐	☑	☑	International Collaborative Academic Research	8	Yes	£ 95,039	£5,260,567	KE; ZA; LDCs	
ODA	Global Vaccines Network	£4,737,535.00	Healthy People, Animals & Plants | Tomorrow's Talent	☐	☐	☑	☑	☐	☐	☑	☑	Pump-priming	5	Yes	£ 1,566,231	£3,171,304	LDCs	
ODA	South Africa NCD's/Mental Health/Infectious Diseases	£2,050,000.00	Healthy People, Animals & Plants	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research		No	£ -	£2,050,000	ZA	
ODA	UKRI Southeast Asia (including Singapore) OHPP	£113,216.00	Healthy People, Animals & Plants	☑	☐	☐	☑	☐	☐	☐	☐	International Collaborative Academic Research		Yes	£ 47,318	£52,682	ID; MY; PH; TH; VN	
ODA	Global Health call with Brazil	£256,200.00	Healthy People, Animals & Plants	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research		No	£ -	£512,400	BR	
ODA	Delivery Costs (for ODA)	£376,326.59												Delivery	£ 5,212	£243,327		
Non-ODA	China UK One Health research for epidemic preparedness and AMR	£580,201.00	Healthy People, Animals & Plants	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research		No	£ -	£1,500,000		CN
Non-ODA	Engineering Biology-Missions-Biomedicine	£250,000.00	Transformative Technologies	☑	☐	☑	☑	☐	☐	☐	☐	International Collaborative Academic Research		No	£ -	£250,000		JP
Non-ODA	Institute to Institute Health collaboration with Helmholtz, Germany	£2,000,000.00	Healthy People, Animals & Plants	☑	☐	☐	☐	☐	☐	☑	☑	International Collaborative Academic Research		No	£ -	£1,948,000		DE
Non-ODA	Japan UK research collaboration in neuroscience, neurodegenerative diseases and dementia	£450,000.00	Healthy People, Animals & Plants	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research	3	Yes	£ 780,709	£538,765		JP
Non-ODA	UK US Cancer Fellowship	£124,387.00	Healthy People, Animals & Plants	☐	☐	☑	☑	☐	☐	☐	☐	International mobility (incl. fellowships, secondments)		No	£ -	£124,387		US
Non-ODA	Delivery Costs (for non-ODA)	£267,326.59												Delivery	£ 8,379	£167,328		

Source: Technopolis based on RODA and POs input, 2024

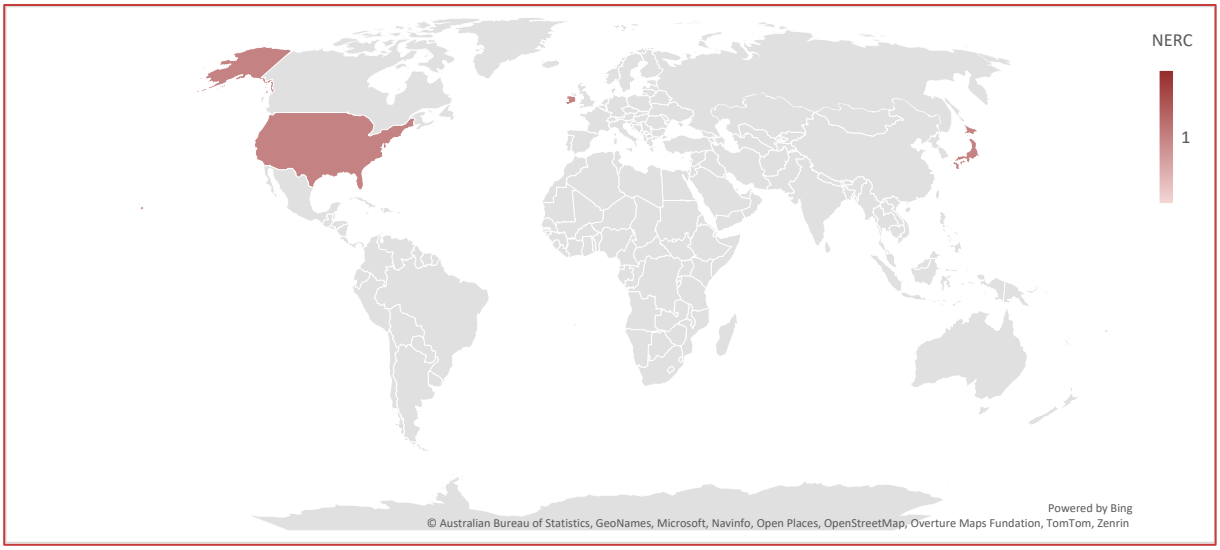
C.20. Natural Environment Research Council (NERC)

C.20.1. NERC Portfolio Overview

The **Natural Environment Research Council (NERC)** is one of nine UK research councils within UKRI, focused on funding environmental science research. It invests in research, postgraduate training, universities and research infrastructure, as well as providing advice to the government in national/international environmental emergencies such as floods or earthquakes.

ISPF Allocation	NERC has an **ISPF allocation of £5.8m for 3 years** (2% of PO total), covering 7 programmes, plus delivery costs. ODA accounts for £0.5m and 2 programmes, non-ODA for £5.2m and 5.
Current Programmes	Currently (March 2024), NERC has a portfolio of **3 ISPF programmes** that are live or underway (according to Q4 2023/24 RODA data).
ISPF Awards	Awards have been made by 2 of these programmes (**15 awards** in total).
ISPF Spend	**Past expenditure of £1.7m is already reported** across current programmes (excl. delivery costs), up to Q4 2023/24. A further £3.2m is forecast for these same programmes up to Q4 2024/25. £1.6m of past expenditure is through awards (98% of programme total).
ODA/Non-ODA focus	Within the current portfolio, none of the programmes are with **ODA countries** and 3 are with **non-ODA** countries. See figure below.
ISPF Themes	Current programmes are tagged against **3 ISPF Themes**: Resilient Planet (3 programmes), Transformative Technologies (1), and Nurturing Tomorrow's Talent (1).
Activity Types	Current programmes most commonly include **international collaborative academic research** (100%).

Figure 45 NERC – Number of current programmes by partner country



Source: Technopolis based on RODA and Allocations data

C.20.2. NERC Portfolio Detail

Table 60 NERC – List and summary details of each ISPF Programme

Programme	Summary details / activities
Amazon +10 Initiative	This call will support UK-Brazil research expeditions to improve our knowledge of the biodiversity and socio-cultural diversity in the Brazilian Amazon. Projects will address geographic and taxonomic biases in our understanding and encourage co-creation of research with traditional knowledge holders from local and indigenous communities. This will support sustainable development of the Amazon by enabling better use of the region's natural resource and associated traditional knowledge. This opportunity is led by Brazil (CONFAP and CNPq) and forms part of the wider Amazon+10 initiative. It will strengthen UK-Brazil (both UKRI and the British Council will participate in this opportunity) research and position the UK as a key global player in biodiversity conservation and sustainable development.
Climate consequences of rapid ocean changes (CCROC)	The US-UK Climate Consequences of Rapid Ocean Changes programme will take advantage of a decade of co-incident observations to deliver enhanced understanding of the Atlantic Meridional Overturning Circulation (AMOC) and improve projections of future climate change throughout the North Atlantic region. It will also deliver research to enable the future transformation of AMOC observations by taking advantage of alternative observing and modelling approaches in a way that will allow for a more sustainable and lower cost future AMOC observing system.
NERC UK-Canada Critical Minerals	This programme will bring together the multidisciplinary UK and Canada research communities around key research challenges for securing supply of critical minerals (CMs) needed in the transition to net zero. It will support new connections and partnerships between UK and Canadian researchers, providing the opportunity for enhanced collaboration, coordination and knowledge/skills sharing across disciplines and sectors related to responsible/sustainable mining. Research addressed by the partnerships will focus on optimisation of efficiency and minimisation of environmental impacts across CM value chains and support development towards a CM circular economy, as well as building the foundation for future collaborative research and establishing the UK as international partner of choice.
Next Generation UK-Canada Arctic Science Engagement Scheme	UKRI has invested £8m in the Canada-Inuit Nunangat-United Kingdom (CINUK) Arctic Research Programme 2021-25. This is a cutting-edge jointly-funded programme bringing together British, Canadian and Inuit researchers. UKRI North America, SIN Canada and DSIT all have strong interests in the success of the programme, which is managed by the NERC Arctic Office. CINUK will have its final Annual Science Meeting in early December 2024 in Canada. This will see senior UK and Canadian representatives from the 13 projects, plus Inuit researchers and community members meet together to share results, identify future opportunities and – through the presence of other international colleagues – promote this inclusive approach more widely, thereby growing UK influence and reach. The funding will enable early to mid-career researchers from Canada and the UK (and potentially other priority countries too) – who are not directly connected to the 13 projects – to attend this important and final conference. This will be a valuable step in supporting the next generation of researchers, promoting the inclusive approach of the programme as a whole and demonstrating the ambition and reach of the UK's Arctic science community.
The Co-Centre Programme (Ireland) (NERC component)	The Co-Centre programme for Collaboration for Transformative Research and Innovation is an exciting opportunity for academia and industry to build strategic and collaborative partnerships across the Republic of Ireland, Great Britain and Northern Ireland through the formation of virtual Co-Centre to perform cutting-edge research in areas of mutual economic, societal, health and environmental importance. It is a 6-year programme consisting of two Co-Centres, the first on tackling climate change challenges, while the other developing solutions for sustainable and resilient food systems.
UK-Japan Arctic Bursary Scheme	This Arctic Bursary scheme with SIN Japan focuses on innovative partnering projects in technology testing or technology development to enhance the use of technology, artificial intelligence and satellite remote sensing within the Arctic, and wider polar environment.

Source: Technopolis based on RODA and POs input, 2024

Table 61 NERC – Full portfolio

ODA / NON-ODA	Programme Title	Allocation (2022/23 - 2024/25)	ISPF themes	Supported Types of Activity									Primary Activity Type	Awards made	Spend Underway?	Total Expenditure (programme + award)	Total Forecast Expenditure (programme + award)	ODA partner countries	Non-ODA partner countries
				International Collaborative Academic	Translational Research & Impact Realisation	International mobility (incl. fellowships,	Institutional R&I capacity building	International Collaborative Business-	Investment in & access to infrastructure / facilities	Pump-priming	Networking and workshops								
ODA	Amazon +10 Initiative	£340,746.00	Resilient Planet|Tomorrow's Talent	☑	☐	☐	☑	☐	☐	☐	☑		International Collaborative Academic Research		No	£ -	£681,492	BR	
ODA	Delivery Costs (for ODA)	£118,000.00													Delivery	£ 33,000	£75,000		
Non-ODA	Climate consequences of rapid ocean changes (CCROC)	£3,301,940.69	Resilient Planet	☑	☐	☐	☐	☐	☐	☐	☐		International Collaborative Academic Research	14	Yes	£ 1,387,952	£1,824,474		US
Non-ODA	Critical Minerals	£0.00	Transformative Technologies	☑	☐	☐	☐	☐	☐	☐	☐		International Collaborative Academic Research		No	£ -	£0		CA
Non-ODA	Next Generation UK-Canada Arctic Science Engagement Scheme	£100,000.00	Resilient Planet	☑	☐	☐	☐	☐	☐	☐	☐		International Collaborative Academic Research		No	£ -	£100,000		CA
Non-ODA	The Co-Centre Programme (Ireland) (NERC component)	£1,280,425.00	Resilient Planet|Transformative Technologies	☑	☐	☐	☐	☑	☐	☐	☐		International Collaborative Academic Research	1	Yes	£ 254,821	£1,025,603		IE
Non-ODA	UK-Japan Arctic Bursary Scheme	£345,000.00	Resilient Planet|Tomorrow's Talent	☑	☐	☑	☑	☐	☑	☐	☐		International Collaborative Academic Research		Yes	£ 30,000	£315,000		JP
Non-ODA	Delivery Costs (for non-ODA)	£217,000.00													Delivery	£ 97,000	£150,000		
ODA	Scoping future priorities for Disaster Risk Reduction (DRR) in the Global South (ISPF - 264)	£50,000.00	Resilient Planet												No			ID; KE; MY; PH; ZA; TH; VN	

Source: Technopolis based on RODA and POs input, 2024

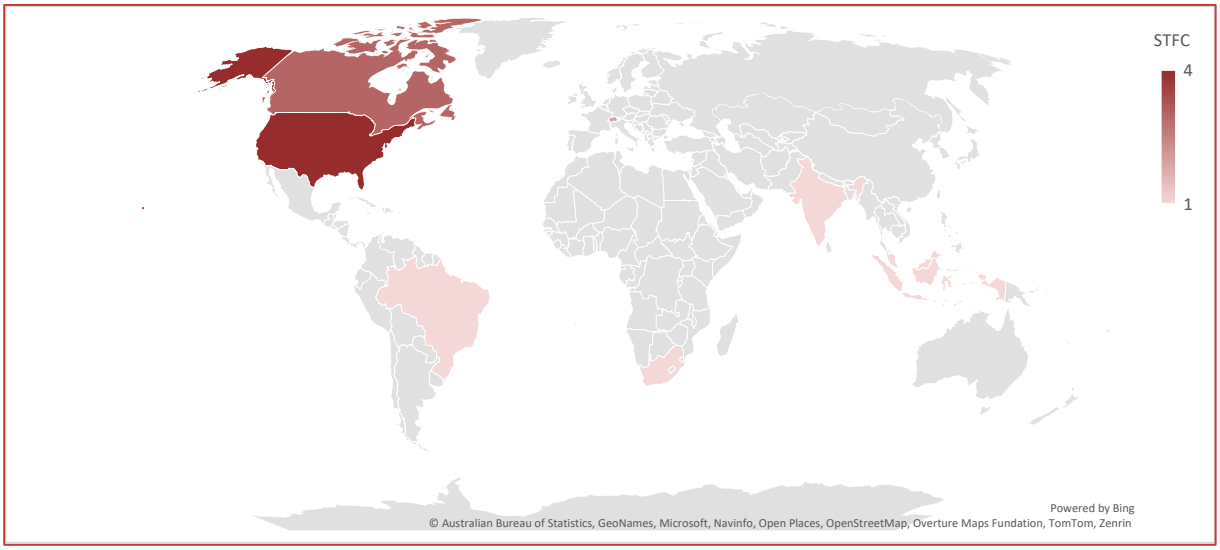
C.21. Science and Technology Facilities Council (STFC)

C.21.1. STFC Portfolio Overview

The **Science and Technology Facilities Council (STFC)** is one of nine UK research councils within UKRI, focused on funding research in science and technology. It supports university-based research fellowship through studentships, large and small scale scientific facilities, national campuses, and student engagement in STEM subjects.

ISPF Allocation	STFC has an **ISPF allocation of £18.9m for 3 years** (7% of PO total), covering 14 programmes, plus delivery costs. ODA accounts for £7.0m and 6 programmes, non-ODA for £11.8m and 8.
Current Programmes	Currently (March 2024), STFC has a portfolio of **11 ISPF programmes** that are live or underway (according to Q4 2023/24 RODA data).
ISPF Awards	Awards have been made by 3 of these programmes (**23 awards** in total).
ISPF Spend	**Past expenditure of £5.5m is already reported** across current programmes (excl. delivery costs), up to Q4 2023/24. A further £12.4m is forecast for these same programmes up to Q4 2024/25. £2.3m of past expenditure is through awards (42% of programme total).
ODA/Non-ODA focus	Within the current portfolio, 3 programmes are with **ODA countries** and 8 are with **non-ODA** countries. See figure below.
ISPF Themes	Current programmes are tagged against **4 ISPF Themes**: Transformative Technologies (10 programmes), Nurturing Tomorrow's Talent (6), Resilient Planet (3), and Healthy People, Animals & Plants (1).
Activity Types	Current programmes most commonly include **investment in and access to infrastructure and facilities** (82%).

Figure 46 STFC – Number of current programmes by partner country



Source: Technopolis based on RODA and Allocations data

C.21.2. STFC Portfolio Detail

Table 62 STFC – List and summary details of each ISPF Programme

Programme	Summary details / activities
Enabling ISIS collaboration with Brazil	The programme will enhance the relationship between Brazil and the UK by increasing the number of proposals to ISIS from Brazilian researchers. Currently averaging 2 per year, we hope to support around 20 completed experiments in the programme and at least 3 extended stays at ISIS by Brazilian researchers, with 30 Brazilian researchers trained in neutron/muon techniques.
Africa-UK physics Partnership	The ambition is for the UK and five (+2) African countries to work in partnership to build and sustain a skilled and talented cohort of early career physicists in order to meet the future science, technology and policy challenges of climate change and sustainable energy via a programme to build relevant research capability, utilise existing initiatives, networks and collaborations and promote equitable partnerships and gender inclusivity. We will work with African funding agencies to connect with their physics research communities and promote mutually beneficial UK:Africa collaborations and enable African researchers to access UK facilities for their research.
Research Infrastructure Partnership Programme	This programme aims to build a long-term strategic partnership with South Africa exploiting the societal impact of research infrastructures and building capacity to support and develop them. Programme will support pump-priming activities in new areas as well as support existing, successful, strategic programmes such as Development in Africa with Radio Astronomy.
UK-ASEAN Research Infrastructure Partnership	This programme aims to build research capacity in ODA relevant research areas by allowing access to UK research infrastructures (ISIS) for Indonesian and Malaysian researchers. It will also develop a relationship with ASEAN funders to further spread use of neutron and muon techniques.
ISIS-Diamond Partnership Development with the Paul Scherrer Institut, Switzerland	This scientific, technical and computing partnership between STFC's ISIS Neutron & Muon Source and the Diamond Light Source at Rutherford Appleton Laboratory (RAL) and PSI's facilities SINQ (neutron source), SuS (muon source), SLS (light source) and SwissFEL (X-FEL) will co-develop technologies and scientific software for neutron, muon and x-ray techniques, as well as scientific collaborations in quantum materials, energy materials, imaging and soft matter.
Development of Canadian use of ISIS	This programme will cement the ISIS-Canada relationship by supporting facility access for Canadian experiments, researcher visits, and a workshop. Benefits for ISIS include development of the ISIS science programme (attracting world-class science from Canada); stimulation of UK-Canadian collaborations; gain of staff resources through extended stays by Canadian visitors; establishment of ISIS's role in the long-term Canadian neutron strategy.
DoE: AI for Realistic Science (AIRS)	This partnership between US and UK National Laboratories will fund cross-disciplinary/co-design approaches to solve common, cross-cutting, challenges within research and innovation. It will do this via the development of AI tools and methods focused on the challenges and opportunities arising from multidisciplinary user facilities. The programme will build communities of researchers through collaborative activities such as workshops, people exchange and research projects.
DoE: UK-US Collaboration in Quantum Science & Technologies (STFC projects)	This call builds on opportunities for existing US-UK consortia on Quantum Sensors for Fundamental Physics to act as a vehicle to grow UK-US collaboration in quantum science. It will focus on areas dependent on additional targeted funding for new collaborations, and will build relevant communities of researchers, in part by building on lab-lab partnerships.
Extreme Scale Computing & AI for Powerplant Engineering (ESCAPE)	This programme is a joint activity between STFC and DoE to bring together complimentary expertise in domains from advanced engineering through to weather and climate modelling to achieve commercial fusion power and support long term UK Government Net Zero objectives.
Quantum for Science	This funding is to enable short-term exchange visits to or from the US, Canada and Switzerland. This includes the necessary funding for small-scale collaborative projects to explore the use of quantum technologies in fundamental physics and its translation into real-world applications.
SPRINGS: Strategic Partnership in x-Ray Instrumentation for Next Generation Synchrotrons	SPRINGS will build upon a successful GRIP project, leveraging the complementary capabilities in STFC and Redlen Technologies Inc to push the boundaries of X-ray detectors for science. The project will make the essential new detectors production-ready and position the UK as the go-to place to build the instruments for ground-breaking research at next generation synchrotrons.
Technology and skills partnership programme	This programme builds on previous collaborations with the Indian Department of Atomic Energy to develop skills, technologies and knowledge in AI, Machine Learning, Bio-imaging and Accelerator Development to improve scientific research at large scientific infrastructures in the UK and India. The programme will also bring key technologies closer to application or commercialisation.

Source: Technopolis based on RODA and POs input, 2024

Table 63 STFC – Full portfolio

ODA / NON-ODA	Programme Title	Allocation (2022/23 - 2024/25)	ISPF themes	Supported Types of Activity									Awards made	Spend Underway?	Total Expenditure (programme + award)	Total Forecast Expenditure (programme + award)	ODA partner countries	Non-ODA partner countries
				International Collaborative Academic	Translational Research & Impact Realisation	International mobility (incl. fellowships,	Institutional R&I capacity building	International Collaborative Business-	Investment in & access to infrastructure / facilities	Pump-priming	Networking and workshops	Primary Activity Type						
ODA	Enabling ISIS collaboration with Brazil	£439,057.11	Transformative Technologies | Tomorrow's Talent	☐	☐	☐	☑	☐	☑	☐	☑	Investment in & access to infrastructure / facilities		Yes	£ 128,082	£357,073	BR	
ODA	Africa-UK physics Partnership	£1,338,450.67	Tomorrow's Talent	☑	☐	☑	☑	☐	☑	☑	☐	International Collaborative Academic Research		No	£ -	£3,360,000	ZA; KE	
ODA	Research Infrastructure Partnership Programme	£3,200,882.00	Tomorrow's Talent	☑	☐	☐	☑	☐	☑	☑	☐	Pump-priming	1	Yes	£ 523,367	£4,130,000	ZA	
ODA	UK-ASEAN Research Infrastructure Partnership	£1,320,000.00	Resilient Planet | Transformative Technologies | Healthy People, Animals & Plants | Tomorrow's Talent	☐	☐	☐	☑	☐	☑	☐	☑	Investment in & access to infrastructure / facilities		Yes	£ 194,998	£1,470,000	ID; MY	
ODA	Delivery Costs (for ODA)	£590,012.20												Delivery	£ 93,294	£225,000		
Non-ODA	Building a strategic relationship with PSI	£1,034,000.00	Resilient Planet | Transformative Technologies | Tomorrow's Talent	☐	☐	☐	☑	☐	☑	☐	☑	Investment in & access to infrastructure / facilities		Yes	£ 20,000	£1,469,000		CH
Non-ODA	Development of Canadian use of ISIS	£1,525,000.00	Resilient Planet | Transformative Technologies | Tomorrow's Talent	☑	☐	☐	☑	☐	☑	☐	☑	Investment in & access to infrastructure / facilities		Yes	£ 586,928	£600,000		CA
Non-ODA	DoE: AI for Realistic Science (AIRS)	£468,000.00	Transformative Technologies	☑	☐	☑	☐	☐	☑	☐	☑	International Collaborative Academic Research		Yes	£ 380,000	£307,000		US
Non-ODA	DoE: UK-US Collaboration in Quantum Science & Technologies (STFC projects)	£1,425,000.00	Transformative Technologies	☑	☐	☐	☐	☐	☑	☐	☐	International Collaborative Academic Research		Yes	£ 890,613	£608,301		US
Non-ODA	Extreme Scale Computing & AI for Powerplant Engineering (ESCAPE)	£1,109,988.00	Transformative Technologies	☐	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research		Yes	£ 787,000	£190,000		US
Non-ODA	Quantum for Science	£771,222.00	Transformative Technologies	☑	☐	☑	☐	☐	☑	☐	☐	International mobility (incl. fellowships, secondments)	14	Yes	£ 589,439	£1,000,000		US; CA; CH
Non-ODA	SPRINGS: Strategic Partnership in x-Ray Instrumentation for Next Generation Synchrotrons	£1,273,320.00	Transformative Technologies	☐	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research		Yes	£ 207,317	£0		CA
Non-ODA	Technology and skills partnership programme	£3,836,303.00	Transformative Technologies | Tomorrow's Talent	☑	☐	☑	☑	☐	☑	☐	☑	International Collaborative Academic Research	8	Yes	£ 1,203,675	£2,259,185		IN
Non-ODA	Delivery Costs (for non-ODA)	£400,131.25												Delivery	£ 68,263	£225,000		
ODA	African School of Physics (ISPF-263)	£30,000.00	Tomorrow's Talent											No			KE; ZA; LDCs	
ODA	CERN Doctoral Student Programme (ISPF-262)	£100,000.00	Tomorrow's Talent											No			KE; ZA; LDCs	

Source: Technopolis based on RODA and POs input, 2024

C.22. UK Research and Innovation (UKRI)

C.22.1. UKRI (organisation) Portfolio Overview

UK Research and Innovation (UKRI) is the UK's national research and innovation funding agency. It invests £8 billion each year into research and innovation through seven research councils and an innovation agency. It aims to advance knowledge, drive economic growth, and improve quality of life through research and innovation.

ISPF Allocation	UKRI (itself) has an **ISPF allocation of £19.5m for 3 years** (7% of PO total), covering 1 programme, plus delivery costs. ODA accounts for £15.8m and 1 programme, non-ODA for £3.7m (delivery costs only, no programmes).
Current Programmes	Currently (March 2024), UKRI has **no ISPF programmes** that are live or underway (according to Q4 2023/24 RODA data).
ISPF Awards	No awards have been made.
ISPF Spend	**No past expenditure is reported** on current programmes (excl. delivery costs), up to Q4 2023/24.

C.22.2. UKRI Portfolio Detail

Table 64 UKRI – List and summary details of each ISPF Programme

Programme	Summary details / activities
Ayrton Challenge Call	The Ayrton challenge programme will deliver a portfolio of research to drive forward the clean energy transition in LMICs, by funding both the development of innovative technologies and the knowledge needed to enable delivery of long-term sustainable change. The programme forms part of the Ayrton Fund, a £1bn government commitment to support clean energy research, development and demonstration (RD&D). The programme is a single £25m call, funding around 10 projects between £2-3m each over 3 years. Successful research projects will be challenge-focused and interdisciplinary, bringing together a breadth of expertise from both the UK and beneficiary countries, including research collaborators, delivery partners and stakeholders.

Source: Technopolis based on RODA and POs input, 2024

Table 65 UKRI – Full portfolio

Partner Organisation	ODA / NON-ODA	Programme Title	Allocation (2022/23 - 2024/25)	ISPF themes	Supported Types of Activity: International Collaborative Academic	Translational Research & Impact Realisation	International mobility (incl. fellowships,	Institutional R&I capacity building	International Collaborative Business-Investment in & access to infrastructure / facilities	Pump-priming	Networking and workshops	Primary Activity Type	Awards made	Spend Underway?	Total Expenditure (programme + award)	Total Forecast Expenditure (programme + award)	ODA partner countries	Non-ODA partner countries
UKRI	ODA	Ayrton Challenge Call	£2,868,162.67	Resilient Planet	☑	☐	☐	☐	☐	☐	☐	☐	International Collaborative Academic Research		No	£ -	£2,150,000	BR; EG; ID; JO; KE; MY; PH; ZA; TH; TR; VN; LDCs	
UKRI	ODA	Delivery Costs (for ODA)	£4,214,297.06												Delivery	£ 692,387	£3,006,297		
UKRI	Non-ODA	Delivery Costs (for non-ODA)	£284,780.04												Delivery	£ 80,079	£184,780		
UKRI	Non-ODA	Delivery Costs (for non-ODA)	£3,418,636.05												Delivery	£ -	£ -		
UKRI	ODA	Delivery Costs (for ODA)	£8,682,307.93												Delivery	£ -	£ -		

Source: Technopolis based on RODA and POs input, 2024

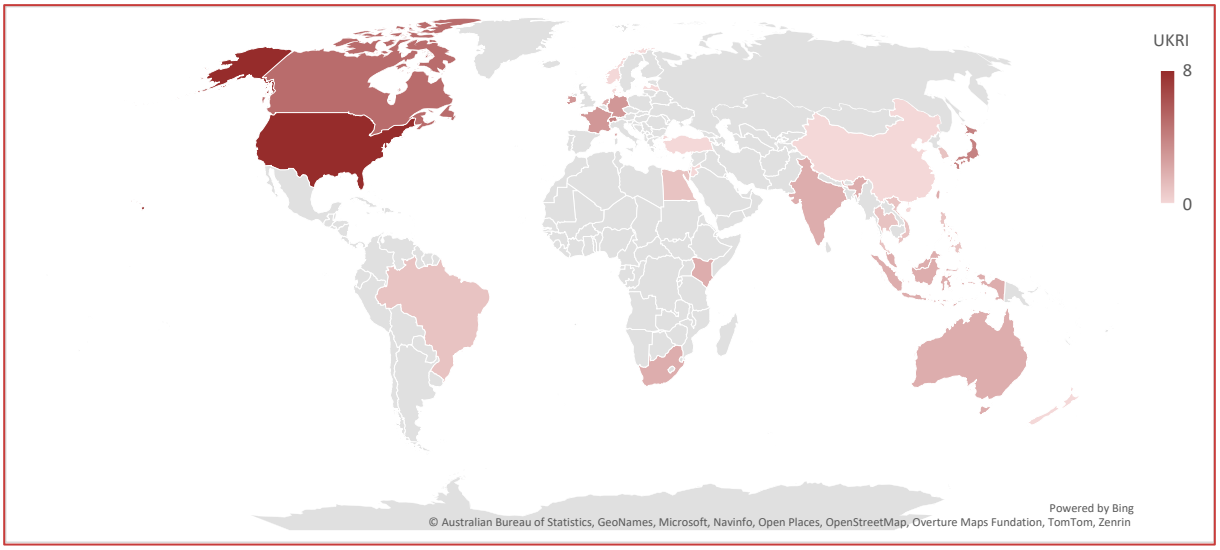
C.23. UK Research and Innovation (UKRI) - COMBINED

C.23.1. UKRI (combined) Portfolio Overview

UK Research and Innovation (UKRI) is the UK's national research and innovation funding agency. It invests £8 billion each year into research and innovation through seven research councils and an innovation agency. It aims to advance knowledge, drive economic growth, and improve quality of life through research and innovation. The summary below relates the ISPF activities of UKRI and its councils and innovation agency (combined).

ISPF Allocation	UKRI (combined) has an **ISPF allocation of £143.9m for 3 years** (51% of PO total), covering 63 programmes, plus delivery costs. ODA accounts for £89.2m and 21 programmes, non-ODA for £54.7m and 42.
Current Programmes	Currently (March 2024), UKRI has a portfolio of **29 ISPF programmes** that are live or underway (according to Q4 2023/24 RODA data).
ISPF Awards	Awards have been made by 18 of these programmes (**208 awards** in total).
ISPF Spend	**Past expenditure of £31.1m is already reported** across current programmes (excl. delivery costs), up to Q4 2023/24. A further £96.2m is forecast for these same programmes up to Q4 2024/25. £20.0m of past expenditure is through awards (64% of programme total).
ODA/Non-ODA focus	Within the current portfolio, 8 programmes are with **ODA countries** and 21 are with **non-ODA** countries. See figure below.
ISPF Themes	Live programmes are tagged against **4 ISPF Themes**: Transformative Technologies (8 programmes), Nurturing Tomorrow's Talent (6), Resilient Planet (3), and Healthy People, Animals & Plants (1).
Activity Types	Live programmes most commonly include **international collaborative academic research** (66%) and **institutional R&I capacity building** (38%).

Figure 47 UKRI (combined) – Number of current programmes by partner country



Source: Technopolis based on RODA and Allocations data

Appendix D Performance measurement

D.1. Existing ISPF KPIs (already being collected)

DSIT has already developed a suite of 23 KPIs to measure the Fund's performance and outcomes. Evidence for most of these KPIs will be collected via one of two established monitoring systems: (i) the Annual Commission requests sent to ISPF POs for completion each year (Table 66); or (ii) the quarterly data submissions by ISPF POs via the financial reporting system (RODA) (Table 67). A small number will be based on further internal / DSIT analysis of information provided by POs, or on evidence collected through evaluation activities (Table 68).

Table 66 ISPF KPIs collected through Annual Commission

KPI Code	KPI Name	KPI Detail	Additional breakdowns or detail requested
A.1	**Fellowships**	Number of new fellowships awarded in the reporting calendar year.	**Further detail requested:** Commentary / further information on this output Link to related case studies
A.2	**Intellectual Property**	Number of unique instances of IP resulting from a project in the reporting calendar year.	**Additional breakdowns:** Overall total Number of patent applications Number of patents granted Number of Trademarks Number of copyrights Number of industrial designs Number of other licensable products **Further detail requested:** Commentary / further information on this output Link to related case studies
A.3	**Spin-out companies**	Number of unique instances of spin-out companies that were generated by an activity and were established in the reporting calendar year.	**Further detail requested:** Country/ies of registration Commentary / further information on this output Link to related case studies
A.4	**Partnerships/ Collaborations**	Number of partnerships/ collaborations in the reporting calendar year.	**Further detail requested:** Commentary / further information on this output Link to related case studies
A.5	**Research capacity strengthening**	Number of award/project activities where research capacity strengthening was stated in the aims and objectives as a primary objective of the funding.	**Additional breakdowns:** At individual level (Y/N) At institutional level (Y/N) At ecosystem level (Y/N) **Further detail requested:** Commentary / further information on this output Link to related case studies
A.6	**Additional funding**	Total amount of additional funding secured in the reporting calendar year.	**Further detail requested:** Commentary / further information on this output Link to related case studies
A.7	**Jobs supported**	Number of full-time employees (FTEs) directly supported (paid for) by the fund within the award/ project.	
A.8	**Applicants & award holders**	Number of applicants and Award holders	**Additional breakdowns:** Number of Applicants (everyone who applied for funding following a call) Number of Award holders (everyone who was a successful applicant and was awarded funding) **Further detail requested:** Commentary / further information on this output Link to related case studies

KPI Code	KPI Name	KPI Detail	Additional breakdowns or detail requested
B.1	**Gender/sex Demographic**	What is the proportion of the KPI group* recorded as women/female.	**Additional breakdowns:** Total Number Number recorded as women / female
B.2	**Training and Development.**	The number of training and professional development opportunities funded by ISPF money per calendar year.	**Additional breakdowns:** Number of PhDs Number of secondments/ placements/ internships Number of training courses attended by project recipients **Further detail requested:** Commentary / further information on this output
B.3	**Tangible outputs**	Number of tangible outputs	**Additional breakdowns:** Number of artistic/creative outputs Number of software/technical product outputs Number of research tools/methods outputs Number of research databases/models outputs Number of medical products/ interventions Number of Other outputs **Further detail requested:** Output description(s) Case study/ impacts (Link/brief description) Partnership country Commentary / further information for this output
B.4	**Policy**	Number of instances of policy influence or engagement	**Additional breakdowns:** Number of Policy engagements Number of policy influences **Further detail requested:** Brief description Country Case study (optional e.g., URL) Commentary / further information for this output
B.5	**MoUs**	Number of new Memoranda of Understanding (MoU) and agreements signed between UK and partner country	**Further detail requested:** Type of agreement (e.g. MoU) Agreement Level (B/C/D) Agreement reference number Government to Government (Y/N) International Partner Organisation to Partner Organisation (Y/N) Fund agreement was signed under (e.g., GCRF, Newton etc) Calendar Year agreement was signed Commentary / further information for this output
B.6	**Events, workshops and symposia**	Number of events, workshops and symposia	**Additional breakdowns:** Number attended Number hosted Number presented at **Further detail requested:** Published case studies
B.7	**Publications**	Publications with identifiers (DOI's, ISBNs, Patent Number, etc)	**Additional breakdowns:** List of DoIs List of ISBNs, List of Patent Numbers List of other identifiers **Further detail requested:** Commentary / further detail on this output

Table 67 ISPF KPIs collected through Quarterly RODA reporting

KPI Code	KPI Name	KPI Detail
A.9	**Lead organisations**	Total funding and number of lead organisations
A.11	**Sustainable Development Goals**	Proportion of awards aligned with Sustainable Development Goals (SDGs) 1, 2 or 3
B.10	**Themes**	Proportion of theme-orientated activity types funded and values [Note that some activities are tagged against multiple themes, and so a transparent approach would be needed for analysis (e.g. in relation to how values have been apportioned across multiple themes]
B.13	**LMICs**	Total funding spend to benefit LMICs by LMIC countries

Table 68 ISPF KPIs collected through other means

KPI Code	KPI Name	KPI Detail	Notes
B.8	**LMIC Authors**		To be calculated by DSIT based on list of DoI provided for KPI B7
B.9	**Field-weighted citation impact**		To be calculated by DSIT based on list of DoI provided for KPI B7
A.10	**Equality Impact Assessments**	Proportion of Equality Impact Assessments (EIAs) assessed by DSIT as *'Excelled'* (ODA funding only)	Based on Fund Management / Assurance Team assessment and scoring of gender equality impact assessments
B.11	**Equitable Partnerships**	Proportion of projects providing (strongly/) agreeing that their project aligns with definitions of (i) fair opportunity, (ii) fair process and (iii) fair sharing of benefits, costs and outcomes.	Based on survey conducted through evaluation

D.2. Additional list of provisional KPIs (not being collected)

In addition to the **suite of 23 KPIs developed by DSIT** to measure the Fund's performance and outcomes (previous sub-section), a further 8 ideas for KPIs were also originally proposed in the ISPF Monitoring, Evaluation and Learning (MEL) Plan, but had not been sufficiently developed. These are listed below, along with a note of when and where it has been possible to take these forward through the recommended indicators proposed in this paper.

Table 69 List of additional ideas for ISPF KPIs originally proposed

Initial ideas for additional indicators	Relevant aspects covered within recommended metrics in this paper
B12: Gender - Lessons learnt (ODA only)	Gender aspects are included across a number of indicators, but there is no specific indicator of lessons learnt included.
B14: Proportion of survey respondents indicating positive benefits of co-design OR Narrative examples of positive impacts	Equitable involvement in design and implementation of programmes / projects is explored through KPI B11, and through the VfM assessment. However, there is no specific indicator on the positive benefits or impacts of co-design.
B15: Instances and case studies where innovations and practical solutions have been tested, demonstrated and / or used in real world settings	Indicators for outputs O10-O13 look at innovation related outputs emerging from ISPF projects, while indicators for outcome OC9 look at concrete examples of use/ commercialisation of innovation outputs emerging from ISPF.
B16: Proportion of sampled projects achieving good value for money (VfM)	A separate methodology has been developed for establishing value for money, and will be reported separately. This approach does not provide a single overall assessment, but rather provides results for different areas (sub-dimensions) of value. Some of these sub-dimensions have been brought across as sources of for indicators in the current paper (as indicated in columns H-I in the table of indicators).
B17: UK Reputation	For Outcome OC12 (increased or sustained reputation of UK as R&I partner of choice, destination for talent), a new indicator has been recommended (Percentage of international funders / delivery organisations for whom participation in the ISPF programme has led to a significant improvement in their own organisation's and other organisations' perceptions of the UK as an SRTI partner), which will be based on evidence collected for the VfM assessment.
B18: Value of working in international partnership	There is no indicator that directly addresses this.
B19: Value of capacity building	There is no indicator that directly addresses this.
B20: UK world ranking for international collaboration in research	There is no indicator that directly addresses this, although there are indicators included that look at citation impact (see outcome OC8) and the reputation of the UK (see OC12).

D.3. ISPF Performance Metrics

Recommendations for ISPF performance metrics (indicators, baseline options and possible benchmarks) are set out in the tables below, organised against the main elements of the ISPF ToC. An introductory note and guide to these tables is provided in Section 6.2.2.

D.3.1. Inputs

Type	Ref No.	ToC Element	Existing KPI?	Existing KPI Detail	Recommended (additional / alternative) Indicators	Sources	Included in VfM?	Relevant VfM sub dimension	Baseline	Comments on the baseline	Possible Benchmark
Input	I1	**Funding**: ISPF + International (public & private) co-funding	Y	A9 Total funding and number of lead organisations	As per existing KPI, plus: Value of co-funding (cash or in -kind), per programme. Total and as % of ISPF Funding	> RODA (KPI A9) > VfM Case Studies (programme descriptions / call documentation, plus interviews with funders / delivery organisations)	Y	1.2.1 Co-funding / contributions in kind for ISPF activities	Not applicable (starting value of 0)	However, initial assessment will be done as part of the baseline evaluation workstream.	Comparison with funding and co-funding (total, relative) realised by other international collaboration Funds (e.g. FIC, Newton, GCRF), taking note of the requirements of these Funds. VfM rubric establishes broad performance levels for co-funding to ODA/non-ODA programmes. (e.g. for non-ODA <75% co-funding is classed as 'poor', 75%-125% is classed as adequate, etc.). Based on initial results, ambitions could then be set for future periods as to the desirable performance standard being sought (or for the desirable proportion of the portfolio realising a certain performance standard).
			Y	B13 Total funding spend to benefit LMICs (Level D)	As per existing KPI.	> RODA (KPI B13)	N		Not applicable (starting value of 0)	However, initial assessment will be done as part of the baseline evaluation workstream.	In line with the International Development White Paper, ISPF has a target to spend 20% of its ODA allocation specifically for the benefit of Least Developed Countries.
Input	I2	**Prior knowledge, skills, expertise & relationships**: Of DSIT, POs, Partners, FCDO SIN, and SRTI communities	N		Not applicable (added as contextual information on ToC)		N		Not applicable (added as contextual information on ToC)		n/a
Input	I3	**Existing Agreements & Ways of Working**	N		Not applicable (added as contextual information on ToC)		N		Not applicable (added as contextual information on ToC)		n/a
Input	I4	**Prior Programmes & Initiatives**	N		Not applicable (added as contextual information on ToC)		N		Not applicable (added as contextual information on ToC)		n/a
Input	I5	**Scope & Steer:** Research themes	N		Proportion of funding / programmes by ISPF Theme	> RODA	N		Not applicable (starting value of 0)	However, initial assessment will be done as part of the baseline evaluation workstream.	n/a currently - results for consideration by DSIT. Ambitions could then be set for future periods to the balance of the portfolio.
Input	I6	**Scope & Steer**: Fund objectives	N		Not applicable (added as contextual information on ToC)		N		Not applicable (added as contextual information on ToC)		n/a
Input	I7	**Scope & Steer**: Partner countries / territories	N		Proportion of funding / programmes by partner country	> RODA	N		Not applicable (starting value of 0)	However, initial assessment will be done as part of the baseline evaluation workstream.	n/a currently - results for consideration by DSIT. Ambitions could then be set for future periods to the balance of the portfolio.

D.3.2. Activities

Type	Ref No.	ToC Element	Existing KPI?	Existing KPI Detail	Recommended (additional / alternative) Indicators	Sources	Included in VfM?	Relevant VfM sub dimension	Baseline	Comments on the baseline	Possible Benchmark
Activity	A1	**International Collaborative Academic Research**: Incl. multi- & interdisciplinary, challenge-driven, partner-led (ODA)	N		Number and value (£, ISPF funding) of programmes that include International Collaborative Academic Research	> RODA analysis + PO consultation (for tagging of newly added programmes)	N		Not applicable (starting value of 0)	However, initial assessment will be done as part of the baseline evaluation.	n/a currently - results for consideration by DSIT. Ambitions could then be set for future periods to the balance of the portfolio.
Activity	A2	**Translational Research**: Incl. impact realisation	N		Number and value (£, ISPF funding) of programmes that include Translational Research	> RODA analysis + PO consultation (for tagging of newly added programmes)	N		Not applicable (starting value of 0)	However, initial assessment will be done as part of the baseline evaluation.	n/a currently - results for consideration by DSIT. Ambitions could then be set for future periods to the balance of the portfolio.
Activity	A3	**International mobility**: Incl. fellowships, secondments. At various career stages. Across sectors	Y	A1 Number of fellowships awarded (+ further info and published case studies) + B1 Proportion of group reported as female B2 Number of individuals attending training / professional development (PhDs, Secondments / placements / internships, training courses)	As per existing KPI, plus: Number and value (£, ISPF funding) of programmes that include International mobility	> Annual Commission (KPI A1) (incl. gender split KPI B1) > Annual Commission (KPI B2 – secondments and internships only) > RODA analysis + PO consultation (for tagging of newly added programmes)	N		Not applicable (starting value of 0)	However, initial assessment will be done as part of the baseline evaluation.	n/a currently - results for consideration by DSIT. Ambitions could then be set for future periods to the balance of the portfolio.
Activity	A4	**Institutional R&I capacity building**	Y	A5 Proportion of projects having 'research capacity strengthening' at individual / institutional / ecosystem level as one of primary objectives (+ further info and published case studies)	As per existing KPI, plus: Number and value (£, ISPF funding) of programmes that include Institutional R&I capacity building	> Annual Commission (KPI A5) > RODA analysis + PO consultation (for tagging of newly added programmes)	N		Not applicable (starting value of 0)	However, initial assessment will be done as part of the baseline evaluation.	n/a currently - results for consideration by DSIT. Ambitions could then be set for future periods to the balance of the portfolio.
Activity	A5	**International Collaborative Business-led research, development & demonstration**: Incl. multi-sectoral	N		Number and value (£, ISPF funding) of programmes that include International Collaborative Business-led research	> RODA analysis + PO consultation (for tagging of newly added programmes)	N		Not applicable (starting value of 0)	However, initial assessment will be done as part of the baseline evaluation.	n/a currently - results for consideration by DSIT. Ambitions could then be set for future periods to the balance of the portfolio.
Activity	A6	**Investment in & access to infrastructure / facilities**	N		Number and value (£, ISPF funding) of programmes that include Investment in & access to infrastructure / facilities	> RODA analysis + PO consultation (for tagging of newly added programmes)	N		Not applicable (starting value of 0)	However, initial assessment will be done as part of the baseline evaluation.	n/a currently - results for consideration by DSIT. Ambitions could then be set for future periods to the balance of the portfolio.
Activity	A7	**Pump-priming**	N		Number and value (£, ISPF funding) of programmes that include Pump-priming	> RODA analysis + PO consultation (for tagging of newly added programmes)	N		Not applicable (starting value of 0)	However, initial assessment will be done as part of the baseline evaluation.	n/a currently - results for consideration by DSIT. Ambitions could then be set for future periods to the balance of the portfolio.
Activity	A8	Networking and workshops	N		Number and value (£, ISPF funding) of programmes that include Networking and workshops	> RODA analysis + PO consultation (for tagging of newly added programmes)	N		Not applicable (starting value of 0)	However, initial assessment will be done as part of the baseline evaluation.	n/a currently - results for consideration by DSIT. Ambitions could then be set for future periods to the balance of the portfolio.

D.3.3. Outputs

Type	Ref No.	ToC Element	Existing KPI?	Existing KPI Detail	Recommended (additional / alternative) Indicators	Sources	Included in VfM?	Relevant VfM sub dimension	Baseline	Comments on the baseline	Possible Benchmark
Outputs	O1	Further resources leveraged for ISPF projects [beyond ISPF funding and co-funding]	N		Value of resources leveraged (£) in cash or in-kind for ISPF programme and projects (in addition to ISPF funding and overseas partner co-funding)	> Programme leads template / interviews > Survey with ISPF project participants (UK and international)	N		Not applicable (starting value of 0)		Comparison with further resources leveraged by other international collaboration Funds (e.g. FIC, Newton, GCRF), where captured by Fund / Evaluation.
Outputs	O2	New R&I ideas identified	N		Percentage of ISPF participants that have identified R&I ideas with ISPF funding and taken them forward (with ISPF funding / with other sources of funding)	> Survey with ISPF project participants (UK and international)	N		Not applicable (starting value of 0)		No benchmark identified
			N		Examples of R&I ideas identified with ISPF funding and taken forward	> Survey with ISPF project participants (UK and international) + follow-up consultation	N				No benchmark identified
Outputs	O3	Joint areas of interest / priorities est. (country, funder, researcher / innovator)	N		Percentage of ISPF participants that have identified joint areas of interest / priorities	> Survey with ISPF project participants (UK and international)	N				No benchmark identified
			N		Examples of joint areas of interest / priorities identified (country, funder)	> Programme leads template / interviews > Survey with ISPF project participants (UK and international)	N		Number of existing MoUs gov-to-gov or international partner org, before ISPF	Suggest capturing this information for VfM case studies only	No benchmark identified
Outputs	O4	New & strengthened partnerships within / across sectors (academia, industry, third sector, policy, funders)	Y	A4 Number of partnerships & collaborations (+ further info and published case studies)	As per existing KPI, plus: Proportion of programmes / projects that have helped to strengthen a new or existing partnership.	> Annual Commission (KPI A4) > VfM Case studies (interviews with funders / delivery organisations, participant survey)	Y	3.1.3 Achievement of outputs…> Related to partnerships	Not applicable (starting value of 0)		No benchmark identified
Outputs	O5	New MoUs / Agreements established	Y	B5 Number of new partnership agreements (e.g. MoUs) (plus detail on agreement level [B/C/D], reference number, gov-to-gov or international partner org, relevant Fund and calendar year signed)	As per existing KPI.	> Annual Commission (KPI B5)	Y	3.1.3 Achievement of outputs…> Related to partnerships	Number of existing MoUs gov-to-gov or international partner org, before ISPF		No benchmark identified
Outputs	O6	High quality peer reviewed publications (total, multi- and inter-disciplinary, ISPF themes, gender) (with international authors, within sectors)	Y	B7 List of publications B8 LMIC Authors	As per existing KPI, plus: Publications produced - per £m invested, that are multi- and inter-disciplinary, by ISPF theme, author gender, with international authors, by field / sector.	> DSIT analysis (B8), based on Annual Commission (KPI B7) > Bibliometric data / analysis	Y	3.1.1 Achievement of outputs…> Related to research	Not applicable (starting value of 0)		Publications produced (per £m invested), compared with UKRI (non-ISPF) data as a reference.
Outputs	O7	Other publications (policy briefs, working documents, synthesis reports)	Y	B7 List of publications	As per existing KPI	> Annual Commission (KPI B7) > Bibliometric data / analysis	N		Not applicable (starting value of 0)		No benchmark identified

Type	Ref No.	ToC Element	Existing KPI?	Existing KPI Detail	Recommended (additional / alternative) Indicators	Sources	Included in VfM?	Relevant VfM sub dimension	Baseline	Comments on the baseline	Possible Benchmark
Outputs	O8	Dissemination	Y	B6 Number of events/workshops/symposiums attended, hosted and presented at (+ published case studies)	As per existing KPI.	> Annual Commission (KPI B6)	N		Not applicable (starting value of 0)		Engagement outcomes reported in UKRI Researchfish data (for non-ISPF activities), per £m invested
			Y	B4 Number of instances of policy engagement or policy influence (+ description, link to case studies, details of partnership country) [in relation to the engagement part]	As per existing KPI.	> Annual Commission (KPI B4 – engagement part)	N		Not applicable (starting value of 0)		Policy outcomes reported in UKRI Researchfish data (for non-ISPF activities), per £m invested
Outputs	O9	New datasets, software, models, creative products, standards	Y	B3 Total number of tangible outputs (artistic/creative, software/technical products, research tools/methods, research databases/models, medical products/ interventions, other (+description of output, published case studies, and details of partner country) [also used as Innovation KPI]	As per existing KPI.	> Annual Commission (KPI B3)	N		Not applicable (starting value of 0)		Tools, Databases, Software and Artistic outcomes reported in UKRI Researchfish data (for non-ISPF activities), per £m invested
Outputs	O10	New and improved products, services & processes	Y	B3 Total number of tangible outputs (artistic/creative, software/technical products, research tools/methods, research databases/models, medical products/ interventions, other (+description of output, published case studies, and details of partner country) [also used as Research KPI]	As per existing KPI.	> Annual Commission (KPI B3 on products processes and services)	N		Not applicable (starting value of 0)		Product outcomes reported in UKRI Researchfish data (for non-ISPF activities), per £m invested
Outputs	O11	New and improved technologies / increased TRL	Y	B3 Total number of tangible outputs (artistic/creative, software/technical products, research tools/methods, research databases/models, medical products/ interventions, other (+description of output, published case studies, and details of partner country) [also used as Research KPI]	As per existing KPI, plus additional indicators below.	> Annual Commission (KPI B3 on new / improved technologies)	N		Not applicable (starting value of 0)		No benchmark identified
			N		Percentage of projects that advance one or more TRL levels due to ISPF funding	> Survey with ISPF project participants (UK and international)	N		TRL starting point at the point of application		Comparison with TRL advancement within other international collaboration Funds (e.g. FIC, Newton, GCRF), where captured by Fund / Evaluation.
			N		Percentage of programmes /projects that have made progress in terms of market readiness as a result of ISPF funding.	> Survey with ISPF project participants (UK and international)	Y	3.1.5 Paving the way for the uptake / application of innovation outputs	MRL starting point at programme / project start		Comparison with TRL advancement within other international collaboration Funds (e.g. FIC, Newton, GCRF), where captured by Fund / Evaluation.
Outputs	O12	IP / patents	Y	A2 Number of instances of IP (overall, patent applications, patents granted, trademarks, copyrights, industrial designs, other licensable products) (+ further info and published case studies).	As per existing KPI.	> Annual Commission (KPI A2)	N		Not applicable (starting value of 0)		IP outcomes reported in UKRI Researchfish data (for non-ISPF activities), per £m invested
Outputs	O13	New spin-offs/start-ups	Y	A3 Number of spin-out companies generated (and country of registration) (+ further info and published case studies)	As per existing KPI.	> Annual Commission (KPI A3)	N		Not applicable (starting value of 0)		Spinout outcomes reported in UKRI Researchfish data (for non-ISPF activities), per £m invested

Type	Ref No.	ToC Element	Existing KPI?	Existing KPI Detail	Recommended (additional / alternative) Indicators	Sources	Included in VfM?	Relevant VfM sub dimension	Baseline	Comments on the baseline	Possible Benchmark
Outputs	O14	New/improved understanding of user needs, research methods, EDI, Responsible R&I, research management, international collaborative research, MEL (among researchers, managers, industry)	Y	B2 Number of individuals attending training / professional development (PhDs, Secondments/placements/internships, training courses) + B1 Proportion of group reported as female	As per existing KPI, plus additional indicator below	> Annual Commission (KPI B2) (incl. gender split KPI B1)	N		Not applicable (starting value of 0)		No benchmark identified
			N		Percentage of ISPF participants for whom participation on the ISPF project has led to new/improved understanding of user needs, research methods, EDI, Responsible R&I, research management, international collaborative research, MEL (among researchers, managers, industry)	> Survey with ISPF project participants (UK and international)	N		Starting point at the point of application		No benchmark identified
Outputs	O15	New/improved understanding of available research capacity, capabilities & infrastructure among partners	N		Percentage of ISPF participants for whom participation on the ISPF project has led new/improved understanding of available research capacity, capabilities & infrastructure among partners	> Survey with ISPF project participants (UK and international)	N		Starting point at the point of application		No benchmark identified

D.3.4. Outcomes

Type	Ref No.	ToC Element	Existing KPI?	Existing KPI Detail	Recommended (additional / alternative) Indicators	Sources	Included in VfM?	Relevant VfM sub dimension	Baseline	Comments on the baseline	Possible Benchmark
Outcome	OC1	**Further funding leveraged (beyond ISPF)** (public & private, national & international)	Y	A6 Additional funding secured (beyond ISPF) – number of occurrences, and amount (+ further info and published case studies)	As per existing KPI.	> Annual Commission (KPI A6)	N		Not applicable (starting value of 0)		Further funding outcomes reported in UKRI Researchfish data (for non-ISPF activities), per £m invested. Comparison with further funding (beyond the Fund) (total, relative) realised within other international collaboration Funds (e.g. FIC, Newton, GCRF), where relevant information is captured by Fund / Evaluation.
Outcome	OC2	Strengthened equitable **partnerships that continue over time** (including via established ways of working)	Y	B11 Equitable partnerships - Proportion of projects providing (strongly/) agreeing that their project aligns with definitions of (i) fair opportunity, (ii) fair process and (iii) fair sharing of benefits, costs and outcomes	As per existing KPI	> Survey with ISPF project participants (KPI B11)			Not applicable (starting value of 0)		A similar KPI was used for the Newton Fund. Otherwise, based on first results for ISPF, ambitions could then be set for future periods.
			N		Proportion of programmes with evidence of the partnership continuing beyond the programme	> VfM Case studies (interviews with funders / delivery organisations, plus survey of project participants)	Y	3.2.2 Attainment of outcomes: Developing international R&I partnerships	Not applicable (starting value of 0)		No benchmark identified, although VfM rubric establishes broad performance levels (i.e. what might be considered adequate)
			N		Examples of the partnership continuing beyond the programme	> VfM Case studies (interviews with funders / delivery organisations, plus survey of project participants)	Y	3.2.2 Attainment of outcomes: Developing international R&I partnerships	Not applicable (starting value of 0)		No benchmark identified
			N		Proportion of programmes where there is concrete evidence of increased joint activities (including research activities and new infrastructure) in common areas of interest between UK and overseas partners (beyond ISPF)	> VfM Case studies (interviews with funders / delivery organisations, plus survey of project participants)	Y	3.2.2 Attainment of outcomes: Developing international R&I partnerships	Not applicable (starting value of 0)		No benchmark identified, although VfM rubric establishes broad performance levels (i.e. what might be considered adequate)
			N		Examples of increased joint activities (including research activities and new infrastructure) in common areas of interest	> VfM Case studies (interviews with funders / delivery organisations, plus survey of project participants)	Y	3.2.2 Attainment of outcomes: Developing international R&I partnerships	Not applicable (starting value of 0)		No benchmark identified
Outcome	OC4	**Increased ability** of UK and partner countries **to collaborate** on R&I (incl. access to infrastructure)	N		Percentage of ISPF participants for whom participation on the ISPF project has led to new/improved access to research infrastructures	> Survey with ISPF project participants (UK and international)	N		Starting point at the point of application		Comparison with evidence for other international collaboration Funds (e.g. FIC, Newton, GCRF), where relevant information is captured by Fund / Evaluation.

Type	Ref No.	ToC Element	Existing KPI?	Existing KPI Detail	Recommended (additional / alternative) Indicators	Sources	Included in VfM?	Relevant VfM sub dimension	Baseline	Comments on the baseline	Possible Benchmark
Outcome	OC5	**Increased or improved ability to tackle global & socioeconomic challenges via use / uptake / application of solutions developed through ISPF**	Y	A11 Proportion of awards aligned with Sustainable Development Goals (SDGs) 1, 2 or 3 [intended as early indicator of alignment (from application stage)]	As per existing KPI, plus additional indicators below:	> RODA (KPI A11)	N		Not applicable (starting value of 0)		No benchmark identified
			N		Proportion of projects reporting Principal and Significant score against OECD policy markers [reported at end of project]	> RODA	N		Not applicable (starting value of 0)		No benchmark identified
			N		Examples of solutions to global/socio-economic challenges that have emerged from the programme	> VfM Case studies (interviews with funders / delivery organisations, plus survey of project participants)	Y	3.2.3 Attainment of outcomes: Delivering solutions to shared challenges	Not applicable (starting value of 0)		No benchmark identified
			N		Examples/ evidence of these solutions having been taken forward / used / applied by a relevant decision-maker or stakeholder	> VfM Case studies (interviews with funders / delivery organisations, plus survey of project participants and Overton)	Y	3.2.3 Attainment of outcomes: Delivering solutions to shared challenges	Not applicable (starting value of 0)		No benchmark identified
Outcome	OC6	**Increased research capabilities, incl. leadership (UK & ODA beneficiaries)**	N		Percentage of ISPF participants for whom participation on the ISPF project has led to increased research capabilities, incl. leadership + examples	> Survey with ISPF project participants (UK and international) + follow-up interviews	N		Starting point at the point of application		Comparison with evidence for other international collaboration Funds (e.g. FIC, Newton, GCRF), where relevant information is captured by Fund / Evaluation.
Outcome	OC7	Improved **connectivity between industry and academia** (UK & ODA beneficiaries)	N		Percentage of ISPF participants for whom participation in the ISPF project has led to improved connectivity with industry / academia	> Survey with ISPF project participants (UK and international)	N		Starting point at the point of application		Comparison with evidence for other international collaboration Funds (e.g. FIC, Newton, GCRF), where relevant information is captured by Fund / Evaluation.
			N		Percentage of ISPF participants who report other activities with ISPF industry / academia partners, beyond ISPF project.	> Survey with ISPF project participants (UK and international)	N		Not applicable (starting value of 0)		No benchmark identified
Outcome	OC8	Increased or sustained **quality / competitiveness R&I** in ISPF themes (UK & ODA beneficiaries)	Y	B9 Field-weighted citation impact (FWCI) (based on B7 List of publications)	As per existing KPI, plus: Citation impact - as measured by Average of Relative Citations (ARC) and HCP (Highly cited papers) - of ISPF publications (total, broken down by ISPF themes, gender and field/sector). Also bibliometric analysis of international co-publications, multi- and inter-disciplinary papers, and research novelty (based on unusual combinations of cited references)	> DSIT analysis (KPI B9), based on Annual Commission (KPI B7) > Bibliometric data / analysis	Y	3.2.5 Attainment of outcomes: Strengthening SRTI quality	Citation impact (as described in the indicator) for ISPF researchers (before ISPF)	Baseline assessment can be made at baseline evaluation stage, or retrospectively alongside the first interim impact assessment.	Comparison of ISPF quality (as measured by citation impact) with several counterfactuals: (1) the same researchers before ISPF funding (2) the same researchers with non-ISPF funding (during ISPF period) (3) UK researchers collaborating with the same countries. [This benchmarking exercise is already proposed as part of VfM approach]

Type	Ref No.	ToC Element	Existing KPI?	Existing KPI Detail	Recommended (additional / alternative) Indicators	Sources	Included in VfM?	Relevant VfM sub dimension	Baseline	Comments on the baseline	Possible Benchmark
Outcome	OC9	Increased **ability to commercialise research and technology**, incl. access to global supply chains, trade opportunities, key infrastructure & skills (UK & ODA beneficiaries)	N		Proportion of programmes / projects where there are concrete examples of use/ commercialisation of innovation outputs emerging from ISPF.	> Survey with ISPF project participants (UK and international) > VfM Case studies (interviews with funders / delivery organisations, plus survey of project participants)	Y	3.1.5 Paving the way for the uptake / application of innovation outputs	Not applicable (starting value of 0)		Comparison with evidence for other international collaboration Funds (e.g. FIC, Newton, GCRF), where relevant information is captured by Fund / Evaluation.
			N		Examples of use/ commercialisation of innovation outputs	> Survey with ISPF project participants (UK and international) > VfM Case studies (interviews with funders / delivery organisations, plus survey of project participants)s	Y	3.1.5 Paving the way for the uptake / application of innovation outputs	Not applicable (starting value of 0)		No benchmark identified
Outcome	OC10	Increased **income from commercialisation** of research & technology, incl. from new markets (UK & ODA beneficiaries)	N		Percentage of ISPF participants for whom participation in the ISPF project has led to increased income from commercialisation of research & technology, incl. from new markets, plus estimated value	> Survey with ISPF project participants (UK and international)	N		Starting point at the point of application		No benchmark identified
Outcome	OC11	Increased or sustained **influence** on standards, policies, research agendas, research culture (incl. EDI) & SRTI ecosystems	Y	B4 Number of instances of policy engagement or policy influence (+ description, link to case studies, details of partnership country) [focusing on the influence element]	As per existing KPI, plus additional indicators below	> Annual Commission (KPI B4 – influence part)	N		Not applicable (starting value of 0)		No benchmark identified
			N		Uptake in policy-related literature	Overton	N		Not applicable (starting value of 0)		
			N		Examples of programme / participant efforts to shape / influence wider SRTI ecosystems (e.g. relevant norms, standards, culture, policies and regulations)	> VfM Case studies (interviews with funders / delivery organisations, plus survey of project participants and Annual Commission data))	Y	3.2.6 Attainment of outcomes: Shaping / influencing wider SRTI ecosystems	Not applicable (starting value of 0)		No benchmark identified
Outcome	OC12	Increased or sustained **reputation of UK** as: R&I partner of choice; destination for talent	N		Percentage of international funders / delivery organisations for whom participation in the ISPF programme has led to a significant improvement in their own organisation's and other organisations' perceptions of the UK as an SRTI partner.	> VfM Case studies (interviews with funders / delivery organisations, plus survey of project participants)	Y	3.2.7 Attainment of outcomes: Improving international perceptions and reputation	Starting point at the point of application		No benchmark identified, although VfM rubric establishes broad performance levels (i.e. what might be considered adequate)

D.4. KPIs providing contextual / cross-cutting information

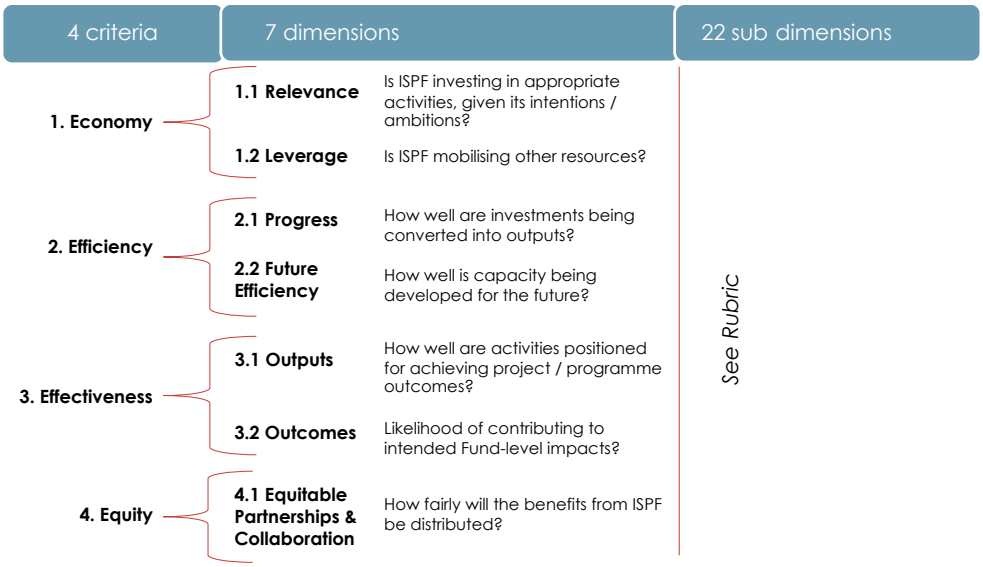
The following are existing ISPF KPIs that do not align with a specific element of the ToC (and so are not included in the tables presented in the previous appendix), but will provide useful cross-cutting or contextual evidence for the evaluation.

KPI	Source
A8 Number of applicants & award holders (PIs)	Annual Commission
A7 Number of jobs directly supported (paid for) by the Fund within the project / award	Annual Commission
A10 Proportion of Equality Impact Assessments (EIAs) assessed by DSIT as *'Excelled'* (ODA funding only) (EIAs conducted at Level C, Report at Level A)	Other
B10 Proportion of theme-orientated activity types funded and values (Level D)	RODA
B1 Proportion of group / output recorded as women / female. For KPIs A7 & A8. *[KPI B1 has been used in the tables presented in the previous appendix in relation to KPIs A1 & B2]*	Annual Commission

Appendix EThe ISPF VfM Rubric

This Appendix presents the VfM Rubric for ISPF. There are **25 sub-dimensions** included (one per row), which have been organised under the 4Es criteria[20] and 7 dimensions.

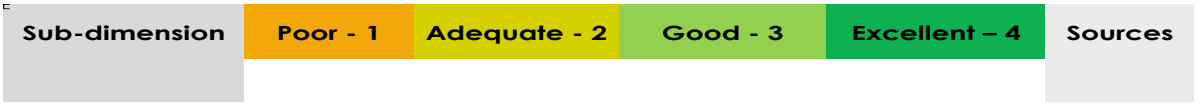
Figure 48 Rubric structure (dimensions and sub-dimensions)



Against each of the 25 sub-dimensions are a set of **performance standards** (one per column), explaining what the evidence would look like at different levels, poor to excellent.

Relevant **sources of evidence** for the assessment are also listed (in the final column). These include existing secondary data sources, and primary data collection to be undertaken by the evaluator. ISPF Partner Organisations will not need to collect additional data, beyond what is already provided through RODA and the Annual Commission.

Figure 49 Rubric structure (performance standards and evidence sources)



Notes to the Rubric:

- The rubric is intended to be applied to all programmes unless indicated otherwise. **Red text** explains if a standard refers only to particular sub-groups (e.g. just to ODA programmes).
- **Words in bold** within the performance standards help to visually identify the additional requirements added as one moves from poor towards excellent on a given sub-dimension.
- Some of the performance standards use quantified bands or cut-off points to distinguish between different levels of performance (e.g. a programme realising co-funding that is >50% of ISPF funding, or that is >100% of ISPF funding). These are intended as a guide, and evaluative judgement will need to be used at the margins to assess which performance level is appropriate (e.g. taking into account wider evidence and context).

[20] Note that a fifth 'E', Cost-Effectiveness, is also embedded within the Rubric (sub-dimensions 1.2.1 and 3.2.1 assess co-funding and leverage relative to DSIT investment, while 3.1.1 and 3.1.2 consider outputs per £m invested).

E.1. Economy Criteria

E.1.1. Relevance Dimension – Is ISPF investing in appropriate activities, given its intentions / ambitions?

Sub-dimension		Poor - 1	Adequate - 2	Good - 3	Excellent – 4	Sources
1.1.1.	*Relevance / alignment of the activity (its scope, focus & intentions) with key ISPF objectives:* > Developing long-term strategic international R&I partnerships, at all levels	There is **no evidence** that UK and international funders / delivery organisations or participants (researchers, innovators) involved see participation in the programme as part of a (potential) longer-term R&I partnership.	Evidence suggests that UK and international funders / delivery organisations involved **see the programme as helping to maintain existing R&I partnerships, or serving as a starting point for possible longer term R&I partnerships.**	Evidence suggests that UK and international funders / delivery organisations involved see the programme as helping to maintain existing R&I partnerships, or serving as a starting point for possible longer term R&I partnerships. **AND** UK and international funders / delivery organisations involved **can articulate the strategic importance of the partnerships.**	Evidence suggests that UK and international funders / delivery organisations involved see the programme as helping to maintain existing R&I partnerships, or serving as a starting point for possible longer term R&I partnerships. AND UK and international funders / delivery organisations involved can articulate the strategic importance of the partnerships. **AND** The programme was **designed/set up in the context of pre-existing or new agreements (e.g. MoUs)** between the UK and international funders / delivery organisations	> Programme descriptions and call documentation > Interviews with UK and international funders / delivery organisations [including to identify and obtain documentation on prior agreements (MoUs, letters of intent)]
1.1.2.	*Relevance / alignment of the activity (its scope, focus & intentions) with key ISPF objectives:* > Delivering solutions that contribute towards addressing specific shared challenges (that fall within at least one of the ISPF Themes)	It is **not possible to identify** how programme high level objectives and thematic focus align with existing strategies, needs assessments and / or identified challenges for both the UK and international funders or delivery organisations.	**It is possible to identify** how programme high level objectives and thematic focus align with existing strategies, needs assessments and / or identified challenges for both the UK and international funders or delivery organisations. AND The thematic focus **aligns with an ISPF Theme**	It is possible to identify how programme high level objectives and thematic focus align with existing strategies, needs assessments and / or identified challenges for both the UK and international funders or delivery organisations. AND The thematic focus aligns with an ISPF Theme **AND** There is evidence that programme objectives and focus have been **defined with consultation** between UK and international funders or delivery organisations.	It is possible to identify how programme high level objectives and thematic focus align with existing strategies, needs assessments and / or identified challenges for both the UK and international funders or delivery organisations. AND The thematic focus aligns with an ISPF Theme AND There is evidence that programme objectives and focus have been **jointly defined, with close coordination** between UK and international funders or delivery organisations.	> Programme descriptions and call documentation > Interviews with UK and international funders / delivery organisations > RODA data (KPI A11 - awards reporting SDGs for ODA activity)
1.1.3.	*Relevance / alignment of the activity (its scope, focus & intentions) with key ISPF objectives:* > Strengthening R&I capabilities (UK & ODA), at all levels	The **programme does not include activities** focusing on strengthening R&I capabilities at any level in ODA countries [ODA] / in the UK [non-ODA]	The programme **includes activities** focusing on strengthening R&I capabilities **at individual level** (researchers, innovators) in ODA countries [ODA] / in the UK [non-ODA] **BUT** There are **no planned activities to facilitate** (i.e. encourage / enable) **spillover effects** [i.e. effects mentioned above that materialise beyond those individual researchers & innovators]	The programme includes activities focusing on strengthening R&I capabilities at individual level (researchers, innovators) in ODA countries [ODA] / in the UK [non-ODA] **AND** **There are planned activities to facilitate (i.e. encourage / enable) spillover effects** [i.e. effects mentioned above that materialise beyond those individual researchers & innovators]	The programme has high level objectives and planned activities focusing on strengthening R&I capabilities **at institutional level** (organisation) in ODA countries [ODA] / in the UK [non-ODA]	> Programme descriptions and call documentation > Interviews with UK and international funders / delivery organisations > Annual Commission data (KPI A5 - whether research capacity strengthening at individual / institutional / ecosystem level stated in aims and objectives of funding)

Sub-dimension		Poor - 1	Adequate - 2	Good - 3	Excellent – 4	Sources
1.1.4.	*Relevance / alignment of the activity (its scope, focus & intentions) with key ISPF objectives:* > Strengthening SRTI quality through international collaboration (UK & ODA)	The programme **does not explicitly explain** how international collaboration will strengthen the quality of the expected R&I outputs.	**The programme explains** why international collaboration is **important** in strengthening the quality of the expected R&I outputs.	The programme explains why international collaboration is **highly critical** in strengthening the quality of the expected R&I outputs, including why it could not be delivered nationally in the ODA country [ODA] / in the UK [non-ODA]. **AND** **Plans / processes are in place to ensure high quality SRTI is supported** (for example relating to scoring criteria).	The programme explains why the international collaboration is highly critical in strengthening the quality of the expected R&I outputs, including why it could not be delivered nationally in the ODA country [ODA] / in the UK [non-ODA]. AND Plans / processes are in place to ensure high quality SRTI is supported. **AND** The programme can **demonstrate that it is only supporting activities that are above a certain quality threshold**.	> Programme descriptions and call documentation > Interviews with UK and international funders / delivery organisations

E.1.2. Leverage Dimension – Is ISPF mobilising other resources?

Sub-dimension		Poor - 1	Adequate - 2	Good - 3	Excellent – 4	Sources
1.2.1.	**Co-funding / contributions in kind for ISPF activities**	[ODA] The programme **does not include any international co-funding** (cash or in -kind) at either the programme or sub-programme / project level [non-ODA] The programme budget **does include** international co-funding (cash or in -kind) at either the programme and/or sub-programme / project level - **equivalent to <75% of ISPF funding**	[ODA] The programme **does include some** international co-funding (cash or in -kind) at either the programme and/or sub-programme / project level [non-ODA] The programme budget does include international co-funding (cash or in -kind) at either the programme and/or sub-programme / project level - **equivalent to 75<125% of ISPF funding**	[ODA] The programme does include international co-funding (cash or in -kind) at either the programme and/or sub-programme / project level - **equivalent to >25% of ISPF funding** [non-ODA] The programme budget does include international co-funding (cash or in -kind) at either the programme and/or sub-programme / project level - **equivalent to >125% of ISPF funding**	[ODA] The programme does include international co-funding (cash or in -kind) at either the programme and/or sub-programme / project level - **equivalent to >50% of ISPF funding** [non-ODA] The programme budget does include international co-funding (cash or in -kind) at either the programme and/or sub-programme / project level - **equivalent to >150% of ISPF funding**	> Programme descriptions > Interviews with UK and international funders / delivery organisations > Survey with UK and international project participants

E.2. Efficiency Criteria

E.2.1. Progress Dimension – How well are investments being converted into outputs?

Sub-dimension		Poor - 1	Adequate - 2	Good - 3	Excellent – 4	Sources
2.1.1.	Progress of **activity implementation** against expectations (planned activities are being delivered on time, on budget)	**Many planned activities (>25%) are not** being delivered on time and on budget [programme and project level]	**Most planned activities (>75%) are** being delivered on time and on budget [programme and project level], **BUT** The programme **does not have in place mechanisms to document** any change or pivoting from original plans.	Most planned activities (>75%) are being delivered on time and on budget [programme and project level] **AND** The programme **has in place mechanisms to document** any change or pivoting from original plans.	**Nearly all planned activities (>90%)** are being delivered on time and on budget [programme and project level] AND The programme has in place mechanisms to document any change or pivoting from original plans.	> Interviews with UK and international funders / delivery organisations > Survey with UK and international project participants > RODA data (planned / actual start and end date, forecast vs actual expenditure)
2.1.2.	Activity has achieved / expects to achieve its **intended objectives**	[For programmes with individual awards/grants] Evidence suggests that **only a minority of awards (<50%)** have achieved / expect to achieve all of their intended objectives. [For programmes without individual awards/grants] Evidence suggests that the programme has not achieved / **does not expect to achieve the majority** of its intended objectives (i.e. up to 50%).	[For programmes with individual awards/grants] Evidence suggests that **a majority of awards (>50%)** have achieved / expect to achieve all of their intended objectives. [For programmes without individual awards/grants] Evidence suggests that the programme has achieved / expects to **achieve the majority (>50%)** of its intended objectives	[For programmes with individual awards/grants] Evidence suggests that **most awards (>75%)** have achieved / expect to achieve all of their intended objectives [For programmes without individual awards/grants] Evidence suggests that the programme has achieved / expects to achieve the majority (>50%) of its intended objectives **AND** **The reasons for any non-achievement are beyond the control of the programme.**	[For programmes with individual awards/grants] Evidence indicates that **nearly all awards (>90%)** have achieved / expect to achieve all of their intended objectives. [For programmes without individual awards/grants] Evidence suggests that the programme has achieved / expects to **achieve all** of its intended objectives (100%).	> Interviews with UK and international funders / delivery organisations [including to identify and obtain other information for triangulation, where available (e.g. programme / project monitoring and reporting)] > Survey with UK and international project participants

E.2.2. Future Efficiency Dimension – How well is capacity being developed for the future?

Sub-dimension		Poor - 1	Adequate - 2	Good - 3	Excellent – 4	Sources
2.2.1.	Enhancement of the skills and capabilities of individuals or institutions to undertake R&I more effectively and efficiently in future	There is **no evidence** that programme/project activities have led to the enhancement of the skills and capabilities of individuals to undertake R&I more effectively and efficiently in future.	Evidence suggests that programme/project **activities have led to the enhancement of the skills and capabilities of individuals (researchers/innovators]** to undertake R&I more effectively and efficiently in future **BUT** There is **no evidence** that this may lead to **spillover effects** [i.e. effects mentioned above that materialise beyond those individual researchers/innovators]	Evidence suggests that the programme / project activities have led to the enhancement of the skills and capabilities of individuals (researchers/innovators] to undertake R&I more effectively and efficiently in future, **AND** There is **evidence** that this may lead to **spillover effects** [i.e. effects mentioned above that materialise beyond those individual researchers/innovators]	Evidence suggests that the programme has led to the **enhancement of the skills and capabilities of institutions (academia/industry)** to undertake R&I more effectively and efficiently in future.	> Interviews with UK and international funders / delivery organisations > Survey with UK and international project participants > Annual Commission data (KPI B2 - number of individuals attending training / professional development - PhD / Secondment & placement / training course)

E.3. Effectiveness Criteria

E.3.1. Outputs Dimension – How well are activities positioned for achieving project / programme outcomes?

Sub-dimension		Poor - 1	Adequate - 2	Good - 3	Excellent – 4	Sources
3.1.1.	**Achievement of outputs…** > Related to research	**Research outputs produced** across the programme (per £m invested) are **below (<90%) existing benchmarks** (using UKRI historical data as reference)	Research outputs produced across the programme (per £m invested) are **in line with (90%<110%)** existing benchmarks (using UKRI historical data as reference)	Research outputs across the programme (per £m invested) are **above (>110%)** existing benchmarks (using UKRI historical data as reference)	Research outputs produced across the programme (per £m invested) are **significantly above (>150%)** existing benchmarks (using UKRI historical data as reference)	> AC data (KPI B3 & B7 - Tangible outputs: Publications, Artistic/ creative, Software/technical, Research tools & methods, Research Databases & models, Medical products & interventions) > Survey of UK and international project participants: other outputs
3.1.2.	**Achievement of outputs…** > Related to innovation	**Innovation outputs** produced across the programme (per £m invested) are **below (<90%) existing benchmarks** (using UKRI historical data as reference)	Innovation outputs produced across the programme (per £m invested) are **in line with (90%<110%)** existing benchmarks (using UKRI historical data as reference)	Innovation outputs across the programme (per £m invested) are **above (>110%)** existing benchmarks (using UKRI historical data as reference)	Innovation outputs produced across the programme (per £m invested) are **significantly above (>150%)** existing benchmarks (using UKRI historical data as reference)	> Annual Commission data (KPI A2 & A3: IP, number of Spin-outs) > Survey of UK and international project participants: Increased TRL
3.1.3.	**Achievement of outputs…** > Related to partnerships	[For programmes without individual awards/grants] Programme has **not helped to sustain a new or existing partnership.** [For programmes with individual awards/grants] Only a **minority of project participants (<50%)** (UK and international) report that participation led to new and strengthened partnerships	[For programmes without individual awards/grants] Programme **has helped to sustain a new or existing partnership** [For programmes with individual awards/grants] A **majority of project participants (>50%)** (UK and international) report that participation led to new and strengthened partnership	[For programmes without individual awards/grants] Programme **has led to a strengthening of a new or existing partnership(s)** (incl. new agreements / MoUs) [For programmes with individual awards/grants] **Most project participants (>75%)** (UK and international) report that participation led to new and strengthened partnerships	[For programmes without individual awards/grants] Programme has **led to a significant strengthening of a new or existing partnership(s)** (incl. new agreements / MoUs) [For programmes with individual awards/grants] **Almost all project participants (>90%)** (UK and international) report that participation led to new and strengthened partnerships	> Interviews with UK and international funders / delivery organisations > Survey with UK and international project participants > Annual Commission data (KPI A4: number of partnerships / collaborations within projects)
3.1.4.	Paving the way for the uptake / application of research outputs	Programme research **outputs are made available** to potential end-users beyond academia (e.g. in industry, policymakers/government) (e.g. through open access)	Programme does **one of the following**: Programme involved end-users beyond academia (e.g. in industry, policymakers/government) in design and implementation OR Programme engaged with end-users beyond academia (e.g. in industry, policymakers/government) to disseminate research outputs OR Programme produced dissemination outputs tailored to end-users beyond academia (e.g. in industry, policymakers/government)]	Programme does **two of the following:** Programme involved end-users beyond academia (e.g. in industry, policymakers/government) in design and implementation OR Programme engaged with end-users beyond academia (e.g. in industry, policymakers/government) to disseminate research outputs OR Programme produced dissemination outputs tailored to end-users beyond academia (e.g. in industry, policymakers/government)]	Programme does **all of the following:** Programme involved end-users beyond academia (e.g. in industry, policymakers/government) in design and implementation AND Programme engaged with end-users beyond academia (e.g. in industry, policymakers/government) to disseminate research outputs AND Programme produced dissemination outputs tailored to end-users beyond academia (e.g. in industry, policymakers/government)]	> Interviews with UK and international funders / delivery organisations > Annual Commission data (KPI B4 & B6: Instances of policy engagement / influence, Events & symposiums hosted / presented) > Survey with UK and international project participants
3.1.5.	Paving the way for the uptake / application of innovation outputs	[For programmes without awards / grants AND with expected innovation outputs] **No evidence of progress** being made in market/technology readiness, which could lead to future use / commercialisation **AND** **No evidence that use/ commercialisation of innovation outputs has occurred or is likely** in the future." [For programmes with awards / grants AND with expected innovation outputs] **A minority of projects (<50%)** have made progress towards market/technology readiness	[[For programmes without awards / grants AND with expected innovation outputs] There is **evidence that progress has been made** in market/technology readiness, which could lead to future use / commercialisation [For programmes with awards / grants AND with expected innovation outputs] **A majority of projects (>50%)** have made progress towards market/technology readiness	[For programmes without awards / grants AND with expected innovation outputs] There is evidence that progress has been made in market/technology readiness **AND** **There is evidence that use/ commercialisation of innovation outputs is likely** to happen in the future [For programmes with awards / grants AND with expected innovation outputs] **Most projects (>75%)** have made progress towards market/technology readiness **AND have a clear internal plan** for use/commercialise innovation output(s)	[For programmes without awards / grants AND with expected innovation outputs] There is evidence that progress has been made in market/technology readiness AND There are **concrete examples of use/ commercialisation** of innovation outputs [For programmes with awards / grants AND with expected innovation outputs] Most projects (>75%) have made progress towards market/technology readiness AND have a clear internal plan for use/commercialise innovation output(s) **AND** There are **concrete examples** of use/ commercialisation of innovation outputs	> Interviews with UK and international funders / delivery organisations > Survey with UK and international project participants

E.3.2. Outcomes Dimension – Likelihood of contributing to intended Fund-level impacts?

Sub-dimension		Poor - 1	Adequate - 2	Good - 3	Excellent – 4	Sources
3.2.1.	**Attainment of outcomes:** Related to further resource leverage	**No evidence** of additional funding secured for follow-on activity	**There is evidence** of additional funding secured for follow-on activity - **equivalent to <50% of ISPF funding**	There is evidence of additional funding secured for follow-on activity - **equivalent to >50% of ISPF funding**	There is evidence of additional funding secured for follow-on activity - **equivalent to >100% of ISPF funding**	> Annual Commission data (KPI A6 - whether + amount of additional funding secured)
3.2.2.	**Attainment of outcomes:** Developing international R&I partnerships	There is **no evidence** that the partnership is likely to continue beyond the programme	**Evidence suggests that the partnership is likely to continue** beyond the programme	There are **concrete examples of the partnership continuing** beyond the programme	There are concrete examples of the partnership continuing beyond the programme **AND** There are concrete examples of I**ncreased joint activities** (including research activities and new infrastructure) in common areas of interest	> Interviews with UK and international funders / delivery organisations > Survey with UK and international project participants > Annual Commission data (KPI B5: new partnership agreements)
3.2.3.	**Attainment of outcomes:** Delivering solutions to shared challenges	There are **no concrete examples of solutions** to global/socio-economic challenges that have emerged from the programme	There are **concrete examples of solutions** to global/socio-economic challenges that have emerged from the programme	There are concrete examples of solutions to global/socio-economic challenges that have emerged from the programme **AND** Evidence suggest that these **solutions <u>will be</u> taken forward / used / applied** by a relevant decision-maker or stakeholder	There are concrete examples of solutions to global/socio-economic challenges that have emerged from the programme **AND** Evidence suggest that these **solutions <u>have been</u> taken forward / used / applied** by a relevant decision-maker or stakeholder	> Interviews with UK and international funders / delivery organisations > Survey with UK and international project participants > Annual Commission data (KPI B4: Instances of policy engagement / influence) > Overton (ref. in policy documents)
3.2.4.	**Attainment of outcomes:** Strengthening R&I capabilities	There are **no concrete examples** of strengthened R&I capabilities at individual level (researchers, innovators) in ODA countries [ODA] / in the UK [non-ODA]	There are **concrete examples of strengthened R&I capabilities at individual level** (researchers, innovators) in ODA countries [ODA] / in the UK [non-ODA] **BUT** No evidence that these efforts **<u>could lead</u> to concrete benefits to their organisations**	There are concrete examples of strengthened R&I capabilities at individual level (researchers, innovators) in ODA countries [ODA] / in the UK [non-ODA] **AND** Evidence suggests that these efforts **<u>could lead</u> to concrete benefits to their organisations**	There are concrete examples of strengthened R&I capabilities **at institutional level** in ODA countries [ODA] / in the UK [non-ODA] **AND** Evidence suggests that these efforts **<u>have led to</u>** concrete benefits to those institutions	> Interviews with UK and international funders / delivery organisations > Survey with UK and international project participants
3.2.5.	**Attainment of outcomes:** Strengthening SRTI quality	Bibliometric data shows a **decrease in the relative quality** of UK research outputs over the lifetime of ISPF. [Measured as citations per output emerging from ISPF, in comparison with the counterfactuals of: (1) the same researchers before ISPF funding, (2) the same researchers with non-ISPF funding; and (3) UK researchers collaborating with the same countries] **OR** Data shows a **decrease in the relative rate** of commercialisation of UK research outputs, over lifetime of ISPF [in comparison with benchmark (using UKRI/IUK as reference) of innovators / businesses not involved in ISPF]	Bibliometric data shows **similar trends** in the relative quality of UK research outputs over the lifetime of ISPF. [Measured as citations per output emerging from ISPF, in comparison with the counterfactuals set out for the 'poor standard'] OR Data shows **similar trends** in the relative rate of commercialisation of UK research outputs, over lifetime of ISPF [in comparison with benchmark (using UKRI/IUK as reference) of innovators / businesses not involved in ISPF]	Bibliometric data shows **an increase** in the relative quality of UK research outputs over the lifetime of ISPF. [Measured as citations per output emerging from ISPF, in comparison with the counterfactuals set out for the 'poor standard'] OR Data shows **an increase** in the relative rate of commercialisation of UK research outputs, over lifetime of ISPF [in comparison with benchmark (using UKRI/IUK as reference) of innovators / businesses not involved in ISPF]	Bibliometric data shows **an increase** in the relative quality of UK research outputs over the lifetime of ISPF. [Measured as citations per output emerging from ISPF, in comparison with the counterfactuals set out for the 'poor standard'] OR Data shows an increase in the relative rate of commercialisation of UK research outputs, over lifetime of ISPF [in comparison with benchmark (using UKRI/IUK as reference) of innovators / businesses not involved in ISPF] **AND** There are **concrete examples** of increased STRI performance	> Annual Commission data (KPI B9: FWCI) > Interviews with UK and international funders / delivery organisations > Survey with UK and international project participants
3.2.6.	**Attainment of outcomes:** Shaping / influencing wider SRTI ecosystems	There are **no concrete examples of the programme / participants making efforts to attempt to shape / influence wider SRTI ecosystems** (e.g. relevant norms, standards, culture, policies and regulations)	**There are concrete examples of programme / participant efforts** to shape / influence wider SRTI ecosystems (e.g. relevant norms, standards, culture, policies and regulations)	There are concrete examples of programme / participant efforts to shape / influence wider SRTI ecosystems (e.g. relevant norms, standards, culture, policies and regulations) **AND** Evidence suggests that these efforts **<u>will lead</u> to concrete changes**	There are concrete examples of programme / participant efforts to shape / influence wider SRTI ecosystems (e.g. relevant norms, standards, culture, policies and regulations) AND Evidence suggests that these efforts **<u>have led</u> to concrete changes**	> Interviews with UK and international funders / delivery organisations > Survey with UK and international project participants > Annual Commission data (KPI B3 & B4: Tangible outputs; Instances of policy engagement / influence)

Sub-dimension		Poor - 1	Adequate - 2	Good - 3	Excellent – 4	Sources
3.2.7.	**Attainment of outcomes:** Improving international perceptions and reputation	**Evidence does not suggest** that international funders / delivery organisations agree that the programme has led to any improvement in their own organisation's perceptions of the UK as an SRTI partner.	**Evidence suggests** that international funders / delivery organisations agree that the programme has led to **some improvement** in their own organisation's perceptions of the UK as an SRTI partner.	Evidence suggests that international funders / delivery organisations agree that the programme has led to **some improvement** in their own organisation's **and other organisations'** perceptions of the UK as an SRTI partner.	**Evidence suggests** that international funders / delivery organisations agree that the programme has led to **a significant improvement** in their own organisation's and other organisations' perceptions of the UK as an SRTI partner.	> Interviews with international funders / delivery organisations > Survey with international project participants
3.2.8	UK access to benefits	Evidence suggests that UK partners **are not able to access and exploit the benefits emerging** from the programme (or project or activities funded under the programme), now and in the future	Evidence suggests that UK partners **are able to access and exploit the benefits emerging** from the programme (or project or activities funded under the programme), now or in the future **– to the extent that they had originally expected**	Evidence suggests that UK partners are able to access and exploit the benefits emerging from the programme (or project or activities funded under the programme), now or in the future – to the extent that they had originally expected **AND** There are **concrete examples** of UK participants exploiting the R&I benefits emerging from the programme (or project activities funded under the programme) **AND** [For programmes with individual awards/grants] Evidence suggests that **the majority (>50%) of international participants (researchers and innovators) agree** that they are able to exploit R&I benefits emerging from the programme (or project or activities funded under the programme) now and in the future	Evidence suggests that UK partners are able to access and exploit the benefits emerging from the programme (or project or activities funded under the programme), now or in the future – **to a greater extent than they had originally expected** AND There are concrete examples of UK participants exploiting the R&I benefits emerging from the programme (or project activities funded under the programme) **AND** [For programmes with individual awards/grants] Evidence suggests that **the most (>75%) of UK participants (researchers and innovators) agree** that they are able to exploit R&I benefits emerging from the programme (or project or activities funded under the programme) now and in the future	> Interviews with UK funders / delivery organisations > Survey with UK project participants

E.4. Equity Criteria

E.4.1. Equitable Partnerships & Collaboration Dimension – How fairly will the benefits from ISPF be distributed?

Sub-dimension		Poor - 1	Adequate - 2	Good - 3	Excellent – 4	Sources
4.1.1.	Equitable involvement in **design and implementation**	Evidence suggests that **either UK or international partners / delivery organisations have not / cannot** input appropriately to programme design, priority setting, implementation and governance processes.	Evidence suggests that **both UK and international partners / delivery organisations have / can** input **to some extent** to programme design, priority setting, implementation and governance processes. .	Evidence suggests that both UK and international partners / delivery organisations have / can input to some extent to programme design, priority setting, implementation and governance processes. **AND** **There is explicit (verbal or written) explanation** of how the programme design, priority setting, implementation and governance processes involve both UK and international partners / delivery organisations. **AND** [For programmes with individual awards/grants] Evidence suggests that **a majority (>50%) of both UK and international participants** are satisfied that they have / can input appropriately to project design and implementation processes.	Evidence suggests that both UK and international partners / delivery organisations have / can input **to a great extent** to programme design, priority setting, implementation and governance processes. AND There is explicit (verbal or written) explanation of how the programme design, priority setting, implementation and governance processes involve both UK and international partners / delivery organisations. **AND** [For programmes with individual awards/grants] Evidence suggests that **most (>75%) of both UK and international participants** are satisfied that they have / can input appropriately to project design and implementation processes.	> Programme descriptions and call documentation > Interviews with international funders / delivery organisations > Survey with project participants
4.1.2.	Equitable **contribution & distribution of resources**	Evidence suggests that the benefits of being involved in the programme (or the project or activities funded under the programme) **do not outweigh all costs (financial and other)** for international funders / delivery organisations	Evidence suggests that the benefits of being involved in the programme (or the project or activities funded under the programme) **align with all costs (financial and other)** for international funders / delivery organisations	Evidence suggests that the benefits of being involved in the programme (or the project or activities funded under the programme) **outweigh all costs (financial and other)** for international funders / delivery organisations **AND** [For programmes with individual awards/grants] Evidence suggests that **a majority (>50%) of both UK and international participants agree** that the benefits of being involved in the programme (or the project or activities funded under the programme) outweigh all costs (financial and other)	Evidence suggests that the benefits of being involved in the programme (or the project or activities funded under the programme) **substantially outweigh all costs (financial and other)** for international funders / delivery organisations **AND** [For programmes with individual awards/grants] Evidence suggests that **most (>75%) of both UK and international participants agree** that the benefits of being involved in the programme (or the project or activities funded under the programme) outweigh all costs (financial and other)	> Programme descriptions and call documentation > Interviews with international funders / delivery organisations > Survey with project participants > Annual Commission data (KPI B13: funding spending benefiting LMICs)
4.1.3.	Equitable involvement in access to benefits	[ODA only] Evidence suggests that international partners **are not able to access and exploit the benefits emerging** from the programme (or project or activities funded under the programme), now or in the future	[ODA only] Evidence suggests that **i**nternational partners **are able to access and exploit the benefits emerging** from the programme (or project or activities funded under the programme), now or in the future **– to the extent that they had originally expected**	[ODA only] Evidence suggests that international partners are able to access and exploit the benefits emerging from the programme (or project or activities funded under the programme), now or in the future – to the extent that they had originally expected **AND** There are **concrete examples** of international participants exploiting the R&I benefits emerging from the programme (or project activities funded under the programme) **AND** [For programmes with individual awards/grants] Evidence suggests that **the majority (>50%) of international participants (researchers and innovators)** are able to exploit R&I benefits emerging from the programme (or project or activities funded under the programme) now or in the future	[ODA only] Evidence suggests that international partners are able to access and exploit the benefits emerging from the programme (or project or activities funded under the programme), now or in the future – **to a greater extent than they had originally expected** AND There are concrete examples of international participants exploiting the R&I benefits emerging from the programme (or project activities funded under the programme) **AND** [For programmes with individual awards/grants] Evidence suggests that **the most (>75%) of international participants (researchers and innovators)** are able to exploit R&I benefits emerging from the programme (or project or activities funded under the programme) now or in the future	> Programme descriptions and call documentation > Programme descriptions and call documentation > Interviews with international funders / delivery organisations > Survey with international project participants
4.1.4.	**Facilitating the empowerment of all relevant stakeholders**, within and / or beyond the programme	Equality, Diversity and Inclusion (EDI) Unaware There is **no evidence of EDI considerations** in the design and implementation of the programme	EDI Aware / Sensitive There is evidence that **EDI is considered in the programme's design** (e.g. via EDI analysis / Equality Impact Assessments). **BUT** There is **little or no evidence of efforts (e.g. strategies) to influence activities / behaviours** in programme implementation	EDI Responsive EDI is considered in the programme's design. **AND** There is **good evidence of efforts (e.g. strategies) to influence activities / behaviours** in programme implementation.	EDI Transformative EDI is considered in the programme's design. AND There is good evidence of efforts to influence activities / behaviours in programme implementation. **AND** There is **good evidence of change emerging from these efforts.**	> Programme descriptions and call documentation > Interviews with funders / delivery organisations > Survey with project participants

Appendix F Sampling VfM and QCA

The table below presents the sample for the VfM and QCA, as described in Section 6.5.1.

Table 70 Selected sample for VfM and QCA

Partner Organisation	Non-/ODA	Programme Title (RODA Level C)	Transformative Technologies	Resilient Planet	Healthy People Animals Plants	Nurturing Tomorrows Talent	Primary Activity Type	Total allocation 22/23-24/25 (in £)
ESC	Non-ODA	Energy System modelling for Net Zero - Taiwan		x				32,000
ESC	Non-ODA	UK-BR-ID Hub – Connecting UK Science, Innovation & Technology	x	x		x		47,250
NPL	Non-ODA	National Graphene Institute - Quantum Electronics Materials of Tomorrow	x					125,000
UKAEA	Non-ODA	Tritium Powered Diamond Battery		x			International Collaborative Business-led RD&D	224,981
EPSRC	Non-ODA	UK Japan Civil Nuclear Research Programme 2023		x			International Collaborative Academic Research	600,000
BC	Non-ODA	Gender Equality and Inclusion Programme (non-ODA part)	x	x	x	x	International mobility (incl. fellowships, secondments)	894,816
STFC	Non-ODA	Building a strategic relationship with PSI	x			x	Investment in & access to infrastructure / facilities	1,034,000
RS	Non-ODA	Newton International Fellowships				x	International Collaborative Academic Research	1,017,069
BBSRC	Non-ODA	AI for Bioscience	x				International Collaborative Academic Research	6,250,000

Partner Organisation	Non-/ODA	Programme Title (RODA Level C)	Transformative Technologies	Resilient Planet	Healthy People Animals Plants	Nurturing Tomorrows Talent	Primary Activity Type	Total allocation 22/23-24/25 (in £)
NERC	ODA	Scoping future priorities for Disaster Risk Reduction (DRR) in the Global South (ISPF - 264)		x				50,000
AMS	ODA	Networking Awardees and Alumni			x	x	Networking and workshops	139,350
RAE	ODA	Leaders in Innovation Fellowships (ODA Part)	x	x	x	x	Translational Research & Impact Realisation	4,414,930
STFC	ODA	Enabling ISIS collaboration with Brazil	x			x	Investment in & access to infrastructure / facilities	439,057
AMS	ODA	Global Policy Workshops (ODA Part)			X		Networking and workshops	603,200
AMS	ODA	Clinical Research Pathways Policy				x	Institutional R&I capacity building	689,700
MRC	ODA	South Africa NCD's/Mental Health/Infectious Diseases			x		International Collaborative Academic Research	2,050,000
BA	ODA	International Writing Workshops				x	Networking and workshops	2,154,760
MO	ODA	Weather & Climate Science for Service Partnership (WCSSP) (ODA Part)		x			International Collaborative Academic Research	2,883,500
MO	ODA	AI for Weather & Climate		x			International Collaborative Academic Research	3,840,080
BA	ODA	Knowledge Systems Strengthening & Equitable Partnerships				x	Institutional R&I capacity building	5,500,000
IUK	ODA	Energy Catalyst Programme		X			International Collaborative Business-led RD&D	45,186,141
								74,112,535

Appendix G Draft baseline survey

International Science Partnerships fund – Consultation

Dear [NAME]

I am writing regarding your participation in the **[Project Name]** project.

This project was funded through the [**Programme Name**] programme and this is one of several programmes supported through Department of Science, Innovation and Technology (DSIT)'s International Science Partnerships fund **(ISPF)**, which is currently being evaluated.

As part of this evaluation, conducted by Technopolis on behalf of DSIT, we are inviting you to provide your views and experiences of the activities supported through the Fund via a short online questionnaire. This can be accessed by clicking on the following link (or copying and pasting the address into your browser). [**Link**]

The survey should only take 15 minutes to complete and we would be grateful if you could do so by **TIMEFRAME.** Your input is extremely important for the further development of funding support for international collaboration and so we would like to thank you in advance for your time. The final evaluation report will be published at the end of the year and we hope that this will prove informative and useful for all involved.

Please note that this survey is voluntary and that your responses will only be shared with DSIT in an anonymised format (unless you give permission otherwise). **Signature**

G.1. Introduction

This survey seeks to gather initial from UK and international participants in programmes that have been funded through DSIT's International Science Partnerships fund. It forms part of a wider evaluation of the Fund.

You have been sent this questionnaire because, according to DSIT records, you have been part of the following project, which has been funded through the DSIT-supported [**PROGRAMME**] programme: **[PROJECT NAME]**

For simplicity, we will refer to this as "the ISPF project" throughout the survey.

Please note that other project participants have also received the questionnaire as we are collecting information across organisations / university departments involved in the project (but only require one submission per organisation / university department).

Before proceeding, please read the information below on 'confidentiality and data' and indicate that you give consent to the following statement concerning the use of your data. A privacy notice can be found here: [Link to privacy notice]

□ I give consent for my response to this questionnaire to be processed and used according to the assurances on confidentiality and data provided in the box below.

Confidentiality and data

You are able to leave this survey at any time. Indeed, you are free to request the withdrawal and deletion of your survey submission and data at any point during or after the survey by emailing ISPF@technopolis-group.com.

All data and information provided will be considered confidential and only used by Technopolis for the purposes of this evaluation. Any publication of results will be in a synthesised and anonymised form. The data will be presented as aggregate statistics or charts and will not be linked to individuals or organisations.

G.2. Questions

About you

Please indicate your role (in relation to this project):

- Researcher / innovator
- Research / innovation / infrastructure manager
- Research / innovation / infrastructure funder
- Other

Understanding of needs, approaches and capabilities

Thinking about your ISPF project (topics, methods, purpose), could you please rate your understanding at the point the project started with respect for the following: (using a scale from 1 to 10, where 1 is no understanding and 10 is high understanding)

[For researchers, across all sectors]

- Potential user needs
- Research methods
- Current best practice on responsible R&I
- Existing research capacity in research partner institution
- Existing research infrastructure in your own base country
- Existing research infrastructure in the country of your partner organisations

[For research & infrastructure managers, funders]

- Supporting international collaborative research
- Current best practice on research management
- Current best practice on responsible R&I
- Monitoring and evaluation of R&I projects / programmes

Research capabilities

Thinking about your ISPF project (topics, methods, purpose), could you please rate your position at the point the project started with respect for the following: (using a scale from 1 to 10, where 1 is none and 10 is high)

[For researchers, across all sectors]

- Ability to conduct international collaborative research
- Ability to lead international collaborative research

Access to research infrastructures

Thinking about your ISPF project (topics, methods, purpose), could you please rate your position at the point the project started with respect for the following: (using a scale from 1 to 10, where 1 is none and 10 is high)

[For researchers, across all sectors]

- Access to existing research infrastructures in your own base country
- Access existing research infrastructure in the country of your partner organisations

[For research & infrastructure managers, funders]

- Scope for access to research infrastructures in other countries
- Scope for collaboration with research infrastructures in other countries

Connectivity with industry / academia

Thinking about your organisation/ research group, could you please rate your position at the point the project started with respect for the following: (using a scale from 1 to 10, where 1 is none and 10 is high)

[For researchers, across all sectors]

- Ability to collaborate with academia
- Ability to collaborate with public research establishments
- Ability to collaborate with industry
- Ability to translate academic research to non-academic needs

[For research & infrastructure managers, funders]

- Degree of collaboration within academia and industry in your own base country
- Degree of collaboration within public research establishments and industry in your own base country.

Research & technology

Thinking about your ISPF project, could you please assess the following: [definition of TRL and MRL levels to be shown]

- TRL at programme / project start
- MRL at programme / project start

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