DPS Schedule 6 (Order Form Template and Order Schedules)

Order Form

ORDER REFERENCE:	**UKRI-3988 (Lot 5)**
THE BUYER:	**United Kingdom Research and Innovation**
BUYER ADDRESS	Polaris House, North Star Avenue, Swindon, England, SN2 1FL
THE SUPPLIER:	RSM UK Consulting LLP
SUPPLIER ADDRESS:	6th floor, 25 Farringdon Street, London. EC4A 4AB
REGISTRATION NUMBER:	OC397475
DUNS NUMBER:	
DPS SUPPLIER REGISTRATION SERVICE ID:	

APPLICABLE DPS CONTRACT

This Order Form is for the provision of the Deliverables and dated 18th November 2025.
It's issued under the DPS Contract with the reference number **RM6126** for the provision of **EPSRC Evaluations – Lot 5 – Quantum Evaluation**

DPS FILTER CATEGORY(IES):
Not applicable

ORDER INCORPORATED TERMS
The following documents are incorporated into this Order Contract. Where numbers are missing we are not using those schedules. If the documents conflict, the following order of precedence applies:

1. This Order Form including the Order Special Terms and Order Special Schedules.
2. Joint Schedule 1(Definitions and Interpretation) **RM6126**
3. DPS Special Terms
4. The following Schedules in equal order of precedence:

    - Joint Schedules for **RM6126**
        - Joint Schedule 2 (Variation Form)
        - Joint Schedule 3 (Insurance Requirements)
        - Joint Schedule 4 (Commercially Sensitive Information)
        - Joint Schedule 6 (Key Subcontractors)
        - Joint Schedule 10 (Rectification Plan)
        - Joint Schedule 11 (Processing Data)
    - Order Schedules for **UKRI-3988**
        - Order Schedule 1 (Transparency Reports)
        - Order Schedule 2 (Staff Transfer)
        - Order Schedule 3 (Continuous Improvement)
        - Order Schedule 5 (Pricing Details)
        - Order Schedule 7 (Key Supplier Staff)
        - Order Schedule 9 (Security) - Part A only
        - Order Schedule 10 (Exit Management)

5. CCS Core Terms (DPS version) v1.0.3
6. Joint Schedule 5 (Corporate Social Responsibility) **RM6126**
7. Order Schedule 4 (Order Tender) as long as any parts of the Order Tender that offer a better commercial position for the Buyer (as decided by the Buyer) take precedence over the documents above.

No other Supplier terms are part of the Order Contract. That includes any terms written on the back of, added to this Order Form, or presented at the time of delivery.

ORDER SPECIAL TERMS
The following Special Terms are incorporated into this Order Contract:
Joint Schedules 3 ANNEX: REQUIRED INSURANCES (Insurance Requirements),

- Professional Indemnity Insurance = £2 Million
- Public Liability Insurance = £5 Million

ORDER START DATE: **18th November 2025**

ORDER EXPIRY DATE: **28th February 2026**

ORDER INITIAL PERIOD: **1 Year and 3 Months**

DELIVERABLES
Option B: See details in Order Schedule 20 (Order Specification)

MAXIMUM LIABILITY
The limitation of liability for this Order Contract is stated in Clause 11.2 of the Core Terms.

The Estimated Year 1 Charges used to calculate liability in the first Contract Year is **£196,101.25**

ORDER CHARGES
Option B: See details in Order Schedule 5 (Pricing Details)

REIMBURSABLE EXPENSES
None

PAYMENT METHOD
The Supplier shall submit an invoice within 28 days of supplying the Supplies and or performing Services to the satisfaction of the Contracting Authority. The invoice shall show the amount of VAT payable and bear the Purchase Order number. Save where an invoice is disputed, the Contracting Authority shall pay the Contractor within 30 days of receipt of an invoice via BACS payment.

If you have a query regarding an outstanding payment, please contact our accounts payable section either by email to accounts@iuk.ukri.org or by telephone 01793-867004 between 09:00 and 17:00 Monday to Friday

The Supplier must facilitate payment by the Buyer of the Charges under a Call-Off Contract under any method agreed with the Buyer in the Order Form.

The Supplier must facilitate a change of payment method during the term of any Call-Off Contract.

The Supplier shall not charge the Buyer for a change in payment method during the term of the Call-off Contract

BUYER'S INVOICE ADDRESS:
UK Research and Innovation
Polaris House,
North Star Avenue,
Swindon,
SN2 1UH

BUYER'S AUTHORISED REPRESENTATIVE
FOIA Section 40 Personal Data
Procurement Manager
FOIA Section 40 Personal Data
UK Research and Innovation
Polaris House,
North Star Avenue,
Swindon,
SN2 1UH

BUYER'S ENVIRONMENTAL POLICY
https://www.ukri.org/about-us/policies-standards-and-data/corporate-policies-and-standards/environmental-sustainability/

BUYER'S SECURITY POLICY
In line with UKRI Data Security checks

SUPPLIER'S AUTHORISED REPRESENTATIVE
FOIA Section 40 Personal Data
Project Partner
FOIA Section 40 Personal Data
The Ewart, 4th Floor, 3 Bedford Square, Belfast, BT2 7EP

SUPPLIER'S CONTRACT MANAGER
FOIA Section 40 Personal Data
Project Manager
FOIA Section 40 Personal Data
The Ewart, 4th Floor, 3 Bedford Square, Belfast, BT2 7EP

PROGRESS REPORT FREQUENCY
To be agreed between the parties

PROGRESS MEETING FREQUENCY
To be agreed between the parties

KEY STAFF
FOIA Section 40 Personal Data
Economic Lead
FOIA Section 40 Personal Data
25 Farringdon Street, London, EC4A 4AB

KEY SUBCONTRACTOR(S)
FOIA Section 43 Commercial Information

E-AUCTIONS
Not applicable

COMMERCIALLY SENSITIVE INFORMATION
Supplier's rates/information

SERVICE CREDITS
Not applicable

ADDITIONAL INSURANCES
Details of Revised Insurances required in accordance with Joint Schedule 3 ANNEX: REQUIRED INSURANCES (Insurance Requirements) are as follows:

- Professional Indemnity Insurance = £2 Million
- Public Liability Insurance = £5 Million

GUARANTEE
Not applicable

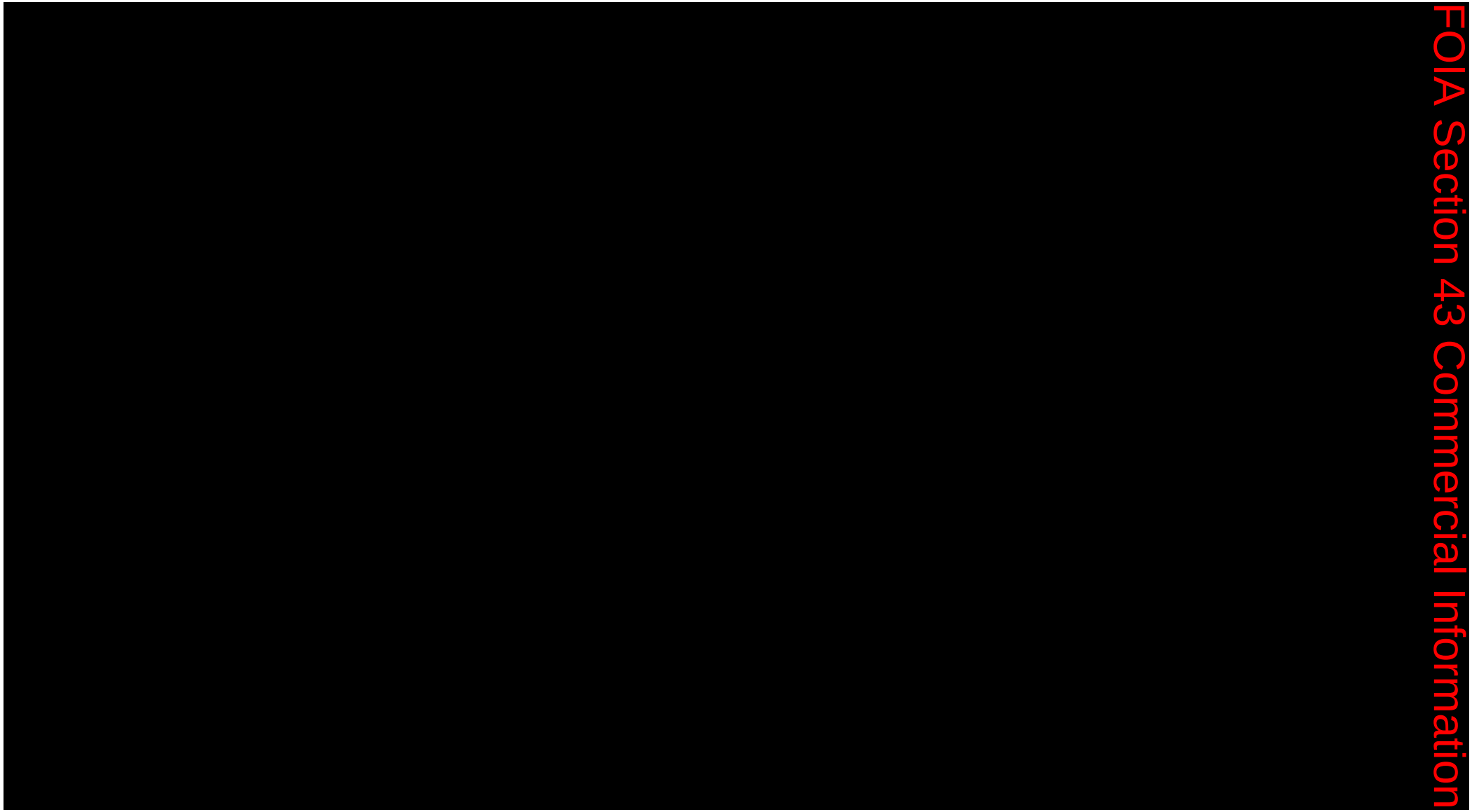
SOCIAL VALUE COMMITMENT
The Supplier agrees, in providing the Deliverables and performing its obligations under the Order Contract, that it will comply with the social value commitments in Order Schedule 4 (Order Tender)]

For and on behalf of the Supplier:		**For and on behalf of the Buyer:**	
Signature:	FOIA Section 40 Personal Data [redacted]	Signature:	FOIA Section 40 Personal Data [redacted]
Name:		Name:	
Role:	PARTNER	Role:	Procurement Manager
Date:	12/12/24	Date:	12/12/24


FOIA Section 43 Commercial Information

Crown Commercial Service

Crown Commercial Service



Joint Schedule 11 (Processing Data)

Definitions

1. In this Schedule, the following words shall have the following meanings and they shall supplement Joint Schedule 1 (Definitions):

"Processor Personnel"	all directors, officers, employees, agents, consultants and suppliers of the Processor and/or of any Sub-processor engaged in the performance of its obligations under a Contract;

Status of the Controller

2. The Parties acknowledge that for the purposes of the Data Protection Legislation, the nature of the activity carried out by each of them in relation to their respective obligations under a Contract dictates the status of each party under the DPA 2018. A Party may act as:

(a) "Controller" in respect of the other Party who is "Processor";

(b) "Processor" in respect of the other Party who is "Controller";

(c) "Joint Controller" with the other Party;

(d) "Independent Controller" of the Personal Data where the other Party is also "Controller",

in respect of certain Personal Data under a Contract and shall specify in Annex 1 *(Processing Personal Data)* which scenario they think shall apply in each situation.

Where one Party is Controller and the other Party its Processor

3. Where a Party is a Processor, the only Processing that it is authorised to do is listed in Annex 1 *(Processing Personal Data*) by the Controller.

4. The Processor shall notify the Controller immediately if it considers that any of the Controller's instructions infringe the Data Protection Legislation.

5. The Processor shall provide all reasonable assistance to the Controller in the preparation of any Data Protection Impact Assessment prior to commencing any Processing. Such assistance may, at the discretion of the Controller, include:

(a) a systematic description of the envisaged Processing and the purpose of the Processing;

(b) an assessment of the necessity and proportionality of the Processing in relation to the Deliverables;

(c) an assessment of the risks to the rights and freedoms of Data Subjects; and

(d) the measures envisaged to address the risks, including safeguards, security measures and mechanisms to ensure the protection of Personal Data.

6. The Processor shall, in relation to any Personal Data Processed in connection with its obligations under the Contract:

(a) Process that Personal Data only in accordance with Annex 1 *(Processing Personal Data*), unless the Processor is required to do otherwise by Law. If it is so required the Processor shall notify the Controller before Processing the Personal Data unless prohibited by Law;

(b) ensure that it has in place Protective Measures, including in the case of the Supplier the measures set out in Clause 14.3 of the Core Terms*,* which the Controller may reasonably reject (but failure to reject shall not amount to approval by the Controller of the adequacy of the Protective Measures) having taken account of the:

(i) nature of the data to be protected;

(ii) harm that might result from a Personal Data Breach;

(iii) state of technological development; and

(iv) cost of implementing any measures;

(c) ensure that:

(i) the Processor Personnel do not Process Personal Data except in accordance with the Contract (and in particular Annex 1 *(Processing Personal Data*));

(ii) it takes all reasonable steps to ensure the reliability and integrity of any Processor Personnel who have access to the Personal Data and ensure that they:

(A) are aware of and comply with the Processor's duties under this Joint Schedule 11, Clauses 14 (*Data protection*), 15 (*What you must keep confidential*) and 16 (*When you can share information*);

(B) are subject to appropriate confidentiality undertakings with the Processor or any Sub-processor;

(C) are informed of the confidential nature of the Personal Data and do not publish, disclose or divulge any of the Personal Data to any third party unless directed in writing to do so by the Controller or as otherwise permitted by the Contract; and

(D) have undergone adequate training in the use, care, protection and handling of Personal Data;

(d) not transfer Personal Data outside of the UK or EU unless the prior written consent of the Controller has been obtained and the following conditions are fulfilled:

(i) the Controller or the Processor has provided appropriate safeguards in relation to the transfer (whether in accordance with UK GDPR Article 46 or LED Article 37) as determined by the Controller;

(ii) the Data Subject has enforceable rights and effective legal remedies;

(iii) the Processor complies with its obligations under the Data Protection Legislation by providing an adequate level of protection to any Personal Data that is transferred (or, if it is not so bound, uses its best endeavours to assist the Controller in meeting its obligations); and

(iv) the Processor complies with any reasonable instructions notified to it in advance by the Controller with respect to the Processing of the Personal Data; and

(e) at the written direction of the Controller, delete or return Personal Data (and any copies of it) to the Controller on termination of the Contract unless the Processor is required by Law to retain the Personal Data.

7. Subject to paragraph 7 of this Joint Schedule 11, the Processor shall notify the Controller immediately if in relation to it Processing Personal Data under or in connection with the Contract it:

(a) receives a Data Subject Access Request (or purported Data Subject Access Request);

(b) receives a request to rectify, block or erase any Personal Data;

(c) receives any other request, complaint or communication relating to either Party's obligations under the Data Protection Legislation;

(d) receives any communication from the Information Commissioner or any other regulatory authority in connection with Personal Data Processed under the Contract;

(e) receives a request from any third Party for disclosure of Personal Data where compliance with such request is required or purported to be required by Law; or

(f) becomes aware of a Personal Data Breach.

8. The Processor's obligation to notify under paragraph 6 of this Joint Schedule 11 shall include the provision of further information to the Controller, as details become available.

9. Taking into account the nature of the Processing, the Processor shall provide the Controller with assistance in relation to either Party's obligations under Data Protection Legislation and any complaint, communication or request made under paragraph 6 of this Joint Schedule 11 (and insofar as possible within the timescales reasonably required by the Controller) including by immediately providing:

(a) the Controller with full details and copies of the complaint, communication or request;

(b) such assistance as is reasonably requested by the Controller to enable it to comply with a Data Subject Access Request within the relevant timescales set out in the Data Protection Legislation;

(c) the Controller, at its request, with any Personal Data it holds in relation to a Data Subject;

(d) assistance as requested by the Controller following any Personal Data Breach; and/or

(e) assistance as requested by the Controller with respect to any request from the Information Commissioner's Office, or any consultation by the Controller with the Information Commissioner's Office.

10. The Processor shall maintain complete and accurate records and information to demonstrate its compliance with this Joint Schedule 11. This requirement does not apply where the Processor employs fewer than 250 staff, unless:

(a) the Controller determines that the Processing is not occasional;

(b) the Controller determines the Processing includes special categories of data as referred to in Article 9(1) of the UK GDPR or Personal Data relating to criminal convictions and offences referred to in Article 10 of the UK GDPR; or

(c) the Controller determines that the Processing is likely to result in a risk to the rights and freedoms of Data Subjects.

11. The Processor shall allow for audits of its Data Processing activity by the Controller or the Controller's designated auditor.

12. The Parties shall designate a Data Protection Officer if required by the Data Protection Legislation.

13. Before allowing any Sub-processor to Process any Personal Data related to the Contract, the Processor must:

(a) notify the Controller in writing of the intended Sub-processor and Processing;

(b) obtain the written consent of the Controller;

(c) enter into a written agreement with the Sub-processor which give effect to the terms set out in this Joint Schedule 11 such that they apply to the Sub-processor; and

(d) provide the Controller with such information regarding the Sub-processor as the Controller may reasonably require.

14. The Processor shall remain fully liable for all acts or omissions of any of its Sub-processors.

15. The Relevant Authority may, at any time on not less than thirty (30) Working Days' notice, revise this Joint Schedule 11 by replacing it with any applicable controller to processor standard clauses or similar terms forming part of an

applicable certification scheme (which shall apply when incorporated by attachment to the Contract).

16. The Parties agree to take account of any guidance issued by the Information Commissioner's Office. The Relevant Authority may on not less than thirty (30) Working Days' notice to the Supplier amend the Contract to ensure that it complies with any guidance issued by the Information Commissioner's Office.

Where the Parties are Joint Controllers of Personal Data

17. In the event that the Parties are Joint Controllers in respect of Personal Data under the Contract, the Parties shall implement paragraphs that are necessary to comply with UK GDPR Article 26 based on the terms set out in Annex 2 to this Joint Schedule 11.

Independent Controllers of Personal Data

18. With respect to Personal Data provided by one Party to another Party for which each Party acts as Controller but which is not under the Joint Control of the Parties, each Party undertakes to comply with the applicable Data Protection Legislation in respect of their Processing of such Personal Data as Controller.

19. Each Party shall Process the Personal Data in compliance with its obligations under the Data Protection Legislation and not do anything to cause the other Party to be in breach of it.

20. Where a Party has provided Personal Data to the other Party in accordance with paragraph 8 of this Joint Schedule 11 above, the recipient of the Personal Data will provide all such relevant documents and information relating to its data protection policies and procedures as the other Party may reasonably require.

21. The Parties shall be responsible for their own compliance with Articles 13 and 14 UK GDPR in respect of the Processing of Personal Data for the purposes of the Contract.

22. The Parties shall only provide Personal Data to each other:

(a) to the extent necessary to perform their respective obligations under the Contract;

(b) in compliance with the Data Protection Legislation (including by ensuring all required data privacy information has been given to affected Data Subjects to meet the requirements of Articles 13 and 14 of the UK GDPR); and

(c) where it has recorded it in Annex 1 *(Processing Personal Data).*

23. Taking into account the state of the art, the costs of implementation and the nature, scope, context and purposes of Processing as well as the risk of varying likelihood and severity for the rights and freedoms of natural persons, each Party shall, with respect to its Processing of Personal Data as Independent Controller, implement and maintain appropriate technical and organisational

measures to ensure a level of security appropriate to that risk, including, as appropriate, the measures referred to in Article 32(1)(a), (b), (c) and (d) of the UK GDPR, and the measures shall, at a minimum, comply with the requirements of the Data Protection Legislation, including Article 32 of the UK GDPR.

24. A Party Processing Personal Data for the purposes of the Contract shall maintain a record of its Processing activities in accordance with Article 30 UK GDPR and shall make the record available to the other Party upon reasonable request.

25. Where a Party receives a request by any Data Subject to exercise any of their rights under the Data Protection Legislation in relation to the Personal Data provided to it by the other Party pursuant to the Contract **("Request Recipient")**:

(a) the other Party shall provide any information and/or assistance as reasonably requested by the Request Recipient to help it respond to the request or correspondence, at the cost of the Request Recipient; or

(b) where the request or correspondence is directed to the other Party and/or relates to that other Party's Processing of the Personal Data, the Request Recipient will:

(i) promptly, and in any event within five (5) Working Days of receipt of the request or correspondence, inform the other Party that it has received the same and shall forward such request or correspondence to the other Party; and

(ii) provide any information and/or assistance as reasonably requested by the other Party to help it respond to the request or correspondence in the timeframes specified by Data Protection Legislation.

26. Each Party shall promptly notify the other Party upon it becoming aware of any Personal Data Breach relating to Personal Data provided by the other Party pursuant to the Contract and shall:

(a) do all such things as reasonably necessary to assist the other Party in mitigating the effects of the Personal Data Breach;

(b) implement any measures necessary to restore the security of any compromised Personal Data;

(c) work with the other Party to make any required notifications to the Information Commissioner's Office and affected Data Subjects in accordance with the Data Protection Legislation (including the timeframes set out therein); and

(d) not do anything which may damage the reputation of the other Party or that Party's relationship with the relevant Data Subjects, save as required by Law.

27. Personal Data provided by one Party to the other Party may be used exclusively to exercise rights and obligations under the Contract as specified in Annex 1 *(Processing Personal Data).*

28. Personal Data shall not be retained or processed for longer than is necessary to perform each Party's respective obligations under the Contract which is specified in Annex 1 *(Processing Personal Data)*.

29. Notwithstanding the general application of paragraphs 2 to 16 of this Joint Schedule 11 to Personal Data, where the Supplier is required to exercise its regulatory and/or legal obligations in respect of Personal Data, it shall act as an Independent Controller of Personal Data in accordance with paragraphs 18 to 27 of this Joint Schedule 11.

Annex 1 - Processing Personal Data

This Annex shall be completed by the Controller, who may take account of the view of the Processors, however the final decision as to the content of this Annex shall be with the Relevant Authority at its absolute discretion.

1.1 The contact details of the Relevant Authority's Data Protection Officer are: FOIA Section 40 Personal Data

1.2 The contact details of the Supplier's Data Protection Officer are: FOIA Section 40 Personal Data

1.3 The Processor shall comply with any further written instructions with respect to Processing by the Controller.

1.4 Any such further instructions shall be incorporated into this Annex.

Description	Details
Identity of Controller for each Category of Personal Data	**The Relevant Authority is Controller and the Supplier is Processor** The Parties acknowledge that in accordance with paragraph 2 to paragraph 15 and for the purposes of the Data Protection Legislation, the Relevant Authority is the Controller and the Supplier is the Processor of the following Personal Data: • *The processing is needed in order to ensure that the Processor can effectively deliver the contract for the Evaluation of the EPSRC Quantum Technology Investments 2014 – 2024. The supplier needs to process the data and engage with relevant people to deliver the study.*
Duration of the Processing	*The processing will occur over the duration of the study which is anticipated to commence in November 2024 and end in February 2026.*
Nature and purposes of the Processing	*The Processing is necessary in order to deliver an Evaluation of the EPSRC Quantum Technology Investments 2014 - 2024.* *The data is for analysis/research and gathering information about impact from these investments using publicly available and propriety databases. Storage, retrieval and transmission through secured site.* *Data/information shared will be for information and analysis purposes, original records will not be altered or deleted as part of this exercise.* *This activity is required so UKRI can fulfil its public task as set out in the Higher Education Research Act 2017 to improve economy,*

	efficiency and effectiveness in carrying out activities in respect of which UKRI gives financial support. *The supplier will need to contact some grant holders and other programme stakeholders for interviews to gain information and prepare case studies. There may be a requirement to send out surveys to key stakeholders across the Hubs and CDTs.*
Type of Personal Data	*Data will be provided from Siebel records of grant application and award data and outcomes data from Researchfish. Specific data will include:* *name, email address, telephone number, host institution, key findings and narrative impact data.* *The data is for analysis/research and gathering information about impact from these investments using publicly available and propriety databases. Storage, retrieval and transmission through secured site.*
Categories of Data Subject	*CDT and Research Hubs Staff; Principal award holders and Co-investigators who have applied for or awarded grants in AI research, Collaborating businesses; University/Centre admin; and Researchers/Students.*
Plan for return and destruction of the data once the Processing is complete UNLESS requirement under Union or Member State law to preserve that type of data	*Any information or data shared will be used for this study purpose only and will be deleted from digital sites or destroyed (if in physical form; printouts etc.) at the end of the contract and the supplier will provide confirmation of this.*

Order Schedule 20 (Order Specification)

This Schedule sets out the characteristics of the Deliverables that the Supplier will be required to make to the Buyers under this Order Contract

Specification for the Evaluation of the EPSRC Quantum Technology Investments 2014 - 2024

1. Introduction

Brief Description of Requirements

The Engineering and Physical Sciences Research Council (EPSRC) wishes to commission an impact evaluation of our investments in quantum technology between 2014 and 2024, specifically made through the (1) EPSRC Quantum Technology Research Hubs Phase 1 and Phase 2, (2) 3 EPSRC Training and Skills Hubs and (3) 3 relevant Centres for Doctoral Training (CDTs). The hubs are flagship investments within the UK National Quantum Technologies Programme (NQTP) and their achievements played an important part in defining activities that the UK Government is seeking as part of the National Quantum Strategies and the 5 Quantum Technology Missions, published in March 2023 and December 2023, respectively.

The evaluation should, therefore, evidence and allow EPSRC to understand the benefit of our major investments in Quantum Technologies and the relative impacts and benefits to the overall UK Quantum landscape. The impacts should focus on economic, social, research, training and skills, and wider, including UK level sovereign capability, associated skills and commercialisation. The evaluation should also allow EPSRC to assess the value for money and include two separate return-on-investments (RoIs) for the research hubs and training and skills hubs respectively, and overall RoI figure for these investments. The RoI figure should consider all the expected impacts of the investments, e.g. research, training and skills, and wider impacts. As the first country to have a programme in Quantum Technology and coordinated Quantum Technology Hubs, the evaluation should also provide an overview of the international standing and reputation of the UK's Quantum Technology sector. It should also identify the regional impacts of the hubs and CDTs in order to add a place-based aspect.

The findings from the evaluation will be used to inform decisions and actions throughout EPSRC, UKRI and Government. Primarily, the evaluation will inform future investment activity decisions, such as through spending reviews and future business cases, as part of EPSRC's contribution to the Government's aim to invest £2.5bn in Quantum Technologies by 2033. Department of Science, Innovation and Technology (DSIT) also require evidence that the benefits described in the business cases are being delivered. The evidence and methodology will therefore

have to be acceptable to DSIT and HM Treasury and so must be HM Government Green and Magenta book compliant and follow a methodology to be agreed with UKRI and DSIT.

The study will deliver:

- A framework for the evaluation, including development of a theory of change, data requirements and collection routes,
- Survey design, delivery and analysis,
- Development of 15 impact case studies and 5 vignettes,
- International Quantum Landscape review, (including approaches such as bibliometric techniques and a literature review),
- Interim Evaluation Report,
- Final Impact Evaluation Report, including ROI and VfM analysis.

Completion date

It is anticipated a final report will be delivered by February 2026.

2. Aims & Objectives

Aim of the evaluation activity

EPSRC wishes to understand the impact of our investments in quantum technologies, specifically the Quantum Technology Research Hubs, Training and Skills Hubs and Quantum-relevant CDTs, on the UK National Quantum Technologies Programme and wider quantum landscape.

The overarching questions for the evaluation are:

- The benefits of the Quantum Technology Research Hubs, Training and Skills Hubs and Quantum-relevant CDTs to the academic community, as well as the benefits to the international competitiveness of UK science.

- The contributions that the Quantum Technology Research Hubs, Training and Skills Hubs and Quantum-relevant CDTs makes to the UK economy, including the impact of the research, training and skills development, and collaboration.

- The aggregate economic impact of the Quantum Technology Research Hubs, Training and Skills Hubs and Quantum-relevant CDTs and the corresponding Return on Investment, including the impact on UK Industry.

- The likely impact of not having the Quantum Technology Research Hubs, Training and Skills Hubs and Quantum-relevant CDTs on UK science.
-
- How have these investments supported regional growth or provided benefits to particular parts of the UK?

- How does the UK compare internationally?

Outputs of this study will be in the form of an interim report due in February 2025, and final report and case studies due in early 2026. The reports are expected to contain a wealth of qualitative and quantitative evidence to highlight the benefit of the investments in the hubs to support future funding activities. The evaluations will be used as evidence of value for money to DSIT and so must follow methodologies to be agreed in advance between the supplier, DSIT and UKRI.

3. Background to the Requirement

Background

The following section provides an overview of the three different investments in quantum technologies, and their objectives, to be studied in this evaluation. This includes the (1) Quantum Technology Research Hubs, (2) Training and Skills Hubs in Quantum Systems Engineering and (3) Centres for Doctoral Training.

Quantum Technology Research Hubs

The UK National Quantum Technologies Programme is a £1 billion dynamic collaboration between industry, academia and government - funding leading-edge science into transformative new products and services.

The NQTP supports ideas, innovation and investment to secure UK advantage and opportunities in the globally competitive new quantum era. The NQTP acts as a cornerstone for the underpinning scientific research, skills training and international collaboration vital to building a resilient UK quantum-enabled economy. UKRI is represented in the NQTP through Innovate UK, the Engineering and Physical Sciences Research Council and the Science and Technology Facilities Council.

EPSRC made a significant investment in a national network of quantum technology hubs to harness the UK's strengths in quantum science by turning it into strengths in quantum technologies. The hubs bring together experts from universities, national laboratories and industry partners to provide a leading position through the development of technologies, a skilled research and development community, a well-networked community, and an emerging industrial sector including a growing number of start-ups. The hubs have enabled and supported new companies and industry partnerships.

The investment has been delivered in two phases, with Phase 2 almost a continuation of Phase 1, with minor changes in staff but an unchanged research direction, Phase 2 ends at the end of November this year (2024). There will be a follow-on Phase 3 but there will be greater changes with some of the existing Hubs not continuing and staff changes at some others. For this reason, it may be beneficial to conduct interviews and surveys before the end of November.

Objectives of the Quantum Technology Research Hubs

Phase 1 – the 2013 Business Case

To provide context, the case for funding for Phase 1 detailed EPSRC investment in postgraduate skills, research programmes, capital for new equipment and innovation (a Special Interest Group, feasibility studies and demonstrators). The Objectives of this investment was to enable the UK to capitalise on and exploit its research strengths by creating capability in Quantum Technologies that is broad and deep enough to pull them through to application and deliver economic and societal benefit. EPSRC committed to establishing a network of national centres in Quantum Technologies which focused on taking the science through to technology, combining complementary high-level skills provision and an innovation programme. These centres each have their own foci and work together to give breadth and depth. Capital funding in the centres is for elements such as clean-room and fabrication systems, high stability radiation sources, ultrafast lasers, high stability lasers, superconducting detectors and electronics, high speed and high sensitivity electronics among other equipment.

The £4m capital investment at NPL within the AML aims to enhance UK's quantum metrology capability and help attract collaborators, as well as cementing links to the other QT centres.

Phase 2 – the 2018 Business Case

The case for this funding intended to extend and consolidate the UK's research leadership position in QTs. The Objectives of a second phase of the NQTP were to:

1) Retain and enhance the academic research expertise developed through the first phase of the NQTP.
2) Deliver a cutting-edge research programme across all the main application areas of QTs that will support the UK's growing QT industrial sector.
3) Provide new concepts and ideas in QTs that will lead to a pipeline of innovations in QTs.
4) Support the UK being the go-to place to research, innovate, and commercialise in QTs.

This renewed funding for the QT Research Hubs aimed to maintain and extend the UK's leadership position in quantum technologies, giving the UK the key capabilities and know-how in this strategically and economically important emerging technology. They aimed to create a strong platform for innovation by continuing to support the close interaction between academia and industry that these Hubs had developed. More specifically, the renewal of this funding expected a number of benefits as below;

Objectives Phase 2	**Main benefits by stakeholder group / customer**
1. Retain and enhance the academic research expertise developed through the first phase of the NQTP.	The UK will retain the benefits of the NQTP it started in 2014, in the form of a world leading expertise base in academia and the highly skilled people this trains for the UK workforce. This will benefit stakeholders in government and industry who can exploit and commercialise this expertise through the creation of new products and services. UK society will benefit through the security and prosperity advantages these can bring.
2. Deliver a cutting edge research programme across all the main application areas of QTs that will support the UK's growing QT industrial sector.	The UK will capitalise on the strength it has developed in the main application areas of QTs. These are mutually supportive due to cross over platform technologies, shared learning, and the balancing of risk. The UK will benefit from the emergence of a new industrial sector that delivers products and services that give revolutionary capabilities and significant advantages over alternatives[2],[3].
3. Provide new concepts and ideas in QTs that will lead to a pipeline of innovations in QTs.	The UK will benefit from the investment it made in the first phase of the NQTP, and that it will make through the ISCF in QTs, as the QT area matures and develops into a strong UK industry. The flow of research outputs on which government and industry can exploit and commercialise will continue, delivering successive generations of QT products and services.
4. Support the UK being the go-to place to research, innovate, and commercialise in QTs.	The UK will continue to attract private investment into a growing QT sector which has the expertise and trained people needed for it to prosper, benefitting UK society as a whole. Both in the form of employment prospects, revenue, and the capabilities of trusted and available QT products and services.

[1] https://publications.parliament.uk/pa/cm201719/cmselect/cmsctech/820/820.pdf

[2] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/564946/qs-16-18-quantum-technologies-report.pdf

[3] https://publications.parliament.uk/pa/cm201719/cmselect/cmsctech/820/820.pdf

Training and Skills Hubs in Quantum Systems Engineering

In 2015, EPSRC's Quantum Technology theme ran a call to invest £15m in Training and Skills Hubs in Quantum Systems Engineering. The funded hubs augmented the UK's existing investments by contributing to the development of quantum technologies, including by delivering coherent packages of skills training, co-working and mobility, and career development initiatives to develop high-level skills in quantum engineering. The hubs had different aims and objectives targeting different areas of the QT ecosystem. They were all based at universities which held related EPSRC CDTs, and the investments benefitted from the CDT training resources and student cohorts. There was only one phase of the hubs, with all three hubs starting in April 2016 and concluding in December 2022 or earlier.

Objectives of the Training and Skills Hubs in Quantum Systems Engineering

The Quantum Enterprise Hub, University of Bristol.

The Hub provided training and professional development to deliver entrepreneurially minded quantum systems engineers. The Quantum Enterprise Fellowships offered flexible early career acceleration support to bolster skills, research and develop innovation strategies in the UK QT Network, including placements with industrial partners.

Innovation in Quantum Business - Applications, Technology and Engineering (InQuBATE), University College London (UCL).

This Hub developed a new entry route into UCL's quantum technologies training. This was targeted at outstanding engineers of all kinds who did not have a strong quantum background. Fifteen students were recruited via this route in 2016-2018 and trained alongside the cohort from UCL's existing EPSRC CDT in Delivering Quantum Technologies. Two thirds of these additional students conducted their PhD research elsewhere in the National Quantum Technologies Programme and the programme had a strong systems engineering component.

Imperial Centre for Quantum - Engineering and Science, Imperial College London.

This Hub targeted engineering and applied science graduates who, through the intensive orientation in the fundamentals of quantum technology, systems engineering, entrepreneurialism, and public engagement would become Quantum Engineers.

Centres for Doctoral Training

The first 3 CDTs were launched in 2013 prior to the NQTP announcement in 2014. The first cohort received funding in 2014. The CDT involved 5 years of funding for up to 10 studentships. The final intake of students was in 2019, with the final cohort completing their studentships in autumn 2023. This was an investment of £14m in CDTs of relevance to quantum sciences.

1. EPSRC Centre for Doctoral Training in Delivering Quantum Technologies at University College London
2. EPSRC Centre for Doctoral Training in Quantum Engineering (QE-CDT), Bristol
3. The EPSRC Centre for Doctoral Training in Controlled Quantum Dynamics at Imperial College.

The first round of Quantum Technologies CDTs was launched in 2018 where two CDTs were awarded; an investment of £8.5m total funding, with CDTs hosted at the University of Bristol and UCL (Imperial College London

submitted an application but was not successful in this round). The first year of cohort funding started in 2019. The CDT involves 5 years of funding for up to 10 studentships. The final intake of students will be in September 2023, with the final cohort completing their studentships in 2027.

1. EPSRC Centre for Doctoral Training in Delivering Quantum Technologies at University College London
2. EPSRC Centre for Doctoral Training in Quantum Engineering (QE-CDT), Bristol

Objectives of the EPSRC Centres for Doctoral Training in Delivering Quantum Technologies

EPSRC Centre for Doctoral Training in Delivering Quantum Technologies, University College London.

Researchers are equipped to function in a complex research and engineering landscape where quantum physics meets cryptography, complexity and information theory, devices, materials, software and hardware engineering. UCL's Doctoral Programme in Delivering Quantum Technologies brings together a team of almost 40 academic experts with key players from commerce and government and a network of international partner institutes to train those research leaders.

EPSRC Centre for Doctoral Training in Quantum Engineering (QE-CDT), Bristol.

Researchers bridge disciplines of physics, engineering, mathematics and computer science and work closely with chemists, biologists and life scientists. They explore fundamental quantum mechanics and work towards future photonic quantum technologies by generating, manipulating and measuring single photons as well as the quantum systems that emit these photons. They further combine findings with cutting-edge engineering processes to form practical devices and technologies.

The EPSRC Centre for Doctoral Training in Controlled Quantum Dynamics at Imperial College London.

Researchers learn a broad skillset with elements to include **e**xperimental projects such as; 1) Trapping and manipulating ultra-cold atoms on an atom chip for applications in sensing and information processing, 2) Building the next generation of atomic clocks, small enough to fit in a mobile phone, 3) Studying coherent control of ultrafast processes in molecules, and 4) Investigate quantum matter-field interaction in a nanoscale structure**.** Students also undertake theoretical projects, including; 1) Studying quantum entanglement using features of many-body quantum systems, 2) Modelling quantum dynamics of small numbers of constituents in biological systems, and 3) Interface light and matter to determine how to maintain quantum coherence.

4. Scope

Data and Other Information Provided by EPSRC

- A set of funded research grants data for investments
- Outcomes data submitted by the PI in Researchfish against those grants including the following:
    - Collaborations and partnerships,
    - Further funding,
    - Engagement activities,
    - Influence on policy,
    - Research tools and methods,
    - Research databases and models,
    - Intellectual property and licensing,
    - Medical products, interventions, and clinical trials,
    - Artistic and creative products,
    - Software and technical products,
    - Spinouts,
    - Awards and recognition,
    - Other outputs and knowledge,
    - Use of facilities and resources,
    - Secondments, placements, and internships.

    It should be noted that the quality of this data is highly dependent on the degree to which the PI completes the annual submissions.
- **Any annual reports submitted to EPSRC in addition to the Researchfish data.**
- **A set of EPSRC case studies related to this funding and any REF case studies overviews from the 2021 and 2014 REF exercise for those submitted that have received EPSRC support.**
- **Annual data that can be gained in addition to the Researchfish data to reflect annual industry growth compared to the number of spinouts created.**
- **Data sources from UK quantum industry (UKQuantum) that provide an indication of industry behaviour to demonstrate metrics such as job creation and company investment raised.**
- **Quantum Strategy, to include DSIT and GoScience annex in the National Quantum Strategy on the publication data. There may also be other reports available (e.g. from the Office for Quantum) which may be beneficial to identify and obtain as part of the evaluation.**

Interaction with the Supplier

Throughout the evaluation, the Supplier will liaise regularly (through meetings) with EPSRC to keep it appraised of progress. Consultants will present to the Advisory board at the completion of each stage for comment, sign-off and associated payment. Further details can be found in Section 5 “Requirement.”

5. Requirement

General Requirements and Methodology

The evaluation should:

- Be compliant with HMT Green and Magenta Book guidance and requirements with the methodology agreed with UKRI & DSIT,
- Provide qualitative analysis to support or where quantitative elements are not possible,
- Include details of the analysis (the calculations, datasets, analysis and methodology will be required to allow the analysis to be quality assured, however, this can be included in as annexes).

EPSRC also expects the following:

- Datasets gathered as a result of the exercise need to be provided to UKRI - in particular any model or modelling tools used to estimate socio-economic impacts, including data sets utilised. This needs to be provided so the report’s economic analysis can be quality assured and accepted by UKRI analysts before it is published on the UKRI evaluation website.

Desired Approaches

As part of the bid, consultants can propose their approach to answering the questions needed for the study, however EPSRC would expect the following to be included;

- **Theory of Change developed** for the Quantum Technology Research Hubs, Training and Skills Hubs and CDTs,
- **Updated M&E Framework,** providing clear and pragmatic recommendations on the metrics and reporting framework to guide any further data collection,
- **Collection and analysis of data,** UKRI will provide consultants with all internally available data under NDA (such ResearchFish and Grant data) and consultants will also add to this through;

- **Design and delivery of surveys** to hub users and admin staff, providing further insight into the outputs, outcomes and impacts achieved (and that expected in the future) from the Quantum Technology investments,
- **Carrying out a small number of interviews** of key stakeholders to provide further insight where needed,
- **Developing Case Studies,** comprising at least 15 long case studies and 5 short vignettes.

Evaluation Deliverables

Deliverable 1: Preparatory Stage (December 2024).

Please note Deliverable 1 and 2 will be delivered together

This stage should involve the initial planning and review of existing data sources, including UKRI data as well as databases that the Supplier has access to. The review of available data should then contribute to a:

1. Finalised methodology for the impact analysis, agreed by the Advisory Board
2. Finalised project management timeline,
3. A Theory of Change to guide the analysis,
4. An associated and finalised M&E framework for the impact evaluation,
5. Agreed survey design to gauge initial successes and impacts,
6. Agreed case study content list.

Expected risks and associated mitigations should be identified as well as stakeholders to consult.

Deliverable 2: Survey Collection (completed by December 2024).

This report will require a survey and a small number of interviews to be conducted with Quantum Technology Research Hubs Phase 2 Hub Staff. However, as some of their contracts are coming to an end on 30th November 2024, they will not continue in their current role in future investments. As such, ideally this needs to be designed and sent out early in the study timeline as some of them would no longer be available to provide information later on. The survey should provide insight into a variety of outcomes and impacts. Questions should focus on filling gaps in data already available from UKRI and external sources and providing metrics of use for ROI and VfM analysis. For example;

- Staff employment figures/job creation, including wage premium, if possible,
- Follow-on funding successes as a result from the Hubs programme work.

Deliverable 3: Interim Impact Evaluation Report (February 2025).

An initial quick-fire report on the evaluation, providing an overview of the evidence and an initial draft of the final report, which includes the conclusions provided by the analysis so far. This will be used as evidence for Spending

Review and as a review point to reflect on the methodology, assess the conclusions so far and agree the next steps in the analysis.

The report should include:

- Evidence of the impact of the hubs and CDTs to date, as linked to the ToC,
- Survey results and discussion on the analysis,
- Drafts for 15 high-quality case studies and 5 vignettes, with the most compelling case studies finalised for Spending Review purposes (as agreed by the Advisory Board),
- Initial International comparator analysis and Place-based analysis,
- Initial economic analysis or return-on-investment figure wherever possible.

Deliverable 4: Final Impact Evaluation Report (February 2026).

A final, detailed impact evaluation report. This report should include:

- A narrative report, including data visualisations and analysis, detailing both qualitative and quantitative benefits and impacts of the investments in the hubs and CDTs,
- A RoI figure for EPSRC's investments in the hubs, and discussion on VfM,
- Fully developed and high-quality case studies and vignettes,
- Finalisation of the international comparator aspects and Place-based analysis.

Key Evaluation Questions

These questions are not exhaustive but aim to provide an overview of the questions of interest within this evaluation.

Economic analysis

Economic Impact – what has the overall economic impact of EPSRC funded Quantum Technology research been?

- What is the RoI figure from EPSRC's investments in the hubs, considering all the expected impacts of the investments, e.g. research, training and skills, and wider impacts?
- What is the effect of the hubs and CDTs on leverage and further funding?
- What is the impact of supporting innovations, including new products/processes, patents and spinouts arising from the hubs and CDTs?

Research Impact – what has the impact of research in quantum been?

- What are the demonstrable strengths in EPSRC funded quantum research?

- What is the impact of the hubs and CDTs on different disciplines and sectors (type of research and problem solving in different areas)?
- What has the impact been on enabling growth of new areas of research?

Training and Skills Impact - To what extent has the programme been successful in increasing UK capability?

- To what extent has the programme attracted high calibre individuals?
- To what extent has the programme enabled diversity in Quantum sciences research?
- To what extent has the programme contributed to high end skills in public private and third sectors?
- To what extent has the programme contributed to the aim of achieving a vibrant diverse academic and skills base in Quantum Technology throughout UK, for example through staff employed and students

Wider Impact - What is the impact, or potential impact, of the hubs and CDTs on health, society and environment?

- What is international standing of the UK's quantum technologies?
- What are the regional and wider place-focused impacts of the hubs and CDTs?
- How has the critical mass investment of Hubs and CDTs influenced the UKs quantum technology landscape and other large investments in relevant sectors?
- How has the governance of the UK's Quantum Technology programme through NQTP and advisory structure enabled agility of research and projects as the quantum landscape evolved both domestically and globally?

Case Study Requirements

The case studies should have information that will be useful for different audiences including Treasury and wider Government, business/investors, and the public. The Case Studies/Impact Narratives chosen will be agreed by the Advisory Board at Delivery 1 (Preparatory stage) and will comprise at least 15 long case studies and 5 short vignettes. The case studies should cover a wide variety of topics from different sectors and locations. This might cover:

- Examples of the people pipeline within advanced Quantum skills – with evidence of the positive outcomes of this investment in talent.
- Areas of fundamental research that have contributed to the growth of Quantum – enabling positive outcomes and impacts in the UK.
- The role of collaborations in enabling the impact, including examples internationally or linked to place-based aspects.

- Examples of benefits to businesses etc. in terms of cost savings, improvement of processes, maximizing their productivity.
- Sectors that have benefitted from the research and how that led to Economic impact or supported broader societal and governmental challenges.

Interaction between EPSRC and the supplier

EPSRC expects regular engagement with the successful Supplier. An EPSRC project manager will be the point of contact for the evaluation, with an EPSRC project team providing support and wider expertise.

As well as the project team, there will be an advisory board consisting of the project team, UKRI evaluation experts, representatives from wider government and external academics. They will have oversight of the evaluation to:

1. Ensure the evaluation is implemented in line with Green Book and Magenta Book best practices,
2. Advise on engaging with the Quantum Technology community,
3. Recommend agreement of any reports.

The Supplier will be expected to engage with the project manager and team as follows:

- Fortnightly update meetings, including – but not limited to;
  - Progress against key milestones and delivery schedule,
  - Interactions with relevant stakeholders,
  - Datasets gathered in the course of the contracted work.
- Monthly formal progress meetings, including – but not limited to;
  - Development of milestone reports,
  - Evaluation against a risk register,
  - Information regarding spend to data against profile,
  - Any other outputs generated.

EPSRC expects the Supplier to raise any issues promptly with the EPSRC Project Manager. The Supplier will also be expected to present the methodology and subsequent findings to the advisory board.

Evaluation Use

The evaluation will be published on the UKRI evaluation website. We expect the evaluation to create evidence that will be accessible for different audiences, including HM Government (e.g. Treasury), business, academia and the public. The information gathered throughout this exercise will help EPSRC and UKRI build the evidence base

to support bids and decisions for further portfolio activity and funding in this area and highlight successes from past investments.

Publishable elements will include;

- PowerPoint or slide deck summarising key findings,
- Full evaluation report that will be published on the UKRI website,
- Data for the Economic analysis (that will also need to be Quality Assured by UKRI economists – and available to Analysts on request).

6. Timetable

Phase	Deliverable	Date
1	Preparatory Stage	December 2024
2	Survey Collection	December 2024
3	Interim Impact Evaluation Report	February 2025
4	Final Impact Evaluation Report	February 2026

Total budget: £200,000 ex vat

Milestones and deliverables will be discussed at the inception meeting and the outline plan revised accordingly within the first deliverable – the scoping report. It is envisaged the Supplier will work closely with EPSRC and the project advisory board to deliver and evolve the study as it progresses, subject to terms and conditions.

After the completion of each stage the EPSRC reserves the right to terminate the contract on grounds of performance and/or budget, subject to terms and conditions.