

## DPS FRAMEWORK SCHEDULE 4: LETTER OF APPOINTMENT AND CONTRACT TERMS

### Part 1: Letter of Appointment

Dear Sirs

#### Letter of Appointment

This letter of Appointment dated Thursday, 4<sup>th</sup> March 2021, is issued in accordance with the provisions of the DPS Agreement (RM6018) between CCS and the Supplier.

Capitalised terms and expressions used in this letter have the same meanings as in the Contract Terms unless the context otherwise requires.

Order Number:	CR20156
From:	UK Research and Innovation (UKRI), Polaris House, North Star Avenue, Swindon, SN2 1FL ("Customer")
To:	Warwick Economics & Development Ltd, 2 Snow Hill, Birmingham, B4 6GA ("Supplier")

Effective Date:	Monday 15 <sup>th</sup> March 2021
Expiry Date:	Friday 20 <sup>th</sup> August 2021

Services required:	Set out in Section 2, Part B (Specification) of the DPS Agreement and refined by: the Customer's Project Specification attached at Appendix A and the Supplier's Proposal attached at Appendix B of this letter of appointment;
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Key Individuals:	██████████ – UKRI ██████████ - Warwick Economics & Development Ltd.
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Contract Charges (including any applicable discount(s), but excluding VAT):	£53,931.25
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Insurance Requirements	<p>Additional public liability insurance to cover all risks in the performance of the Contract, with a minimum limit of £5 million for each individual claim</p> <p>Additional employers' liability insurance with a minimum limit of £5 million indemnity</p> <p>Additional professional indemnity insurance adequate to cover all risks in the performance of the Contract with a minimum limit of indemnity of £2 million for each individual claim.</p> <p>Product liability insurance cover all risks in the provision of Deliverables under the Contract, with a minimum limit of £5 million for each individual claim</p>
Liability Requirements	<b>Suppliers limitation of Liability</b> (Clause 18 of the Contract Terms);
GDPR	Please see Contract Terms Schedule 7 (Processing, Personal Data and Data Subjects)
Customer billing address for invoicing:	All invoices should be sent to should be sent to finance@services.ukpbs.co.uk or Billingham (UKSBS, Queensway House, West Precinct, Billingham, TS23 2NF).

**FORMATION OF CONTRACT**

**BY SIGNING AND RETURNING THIS LETTER OF APPOINTMENT (which may be done by electronic means) the Supplier agrees to enter a Contract with the Customer to provide the Services in accordance with the terms of this letter and the Contract Terms.**

**The Parties hereby acknowledge and agree that they have read this letter and the Contract Terms.**

**The Parties hereby acknowledge and agree that this Contract shall be formed when the Customer acknowledges (which may be done by electronic means) the receipt of the signed copy of this letter from the Supplier within two (2) Working Days from such receipt**

**For and on behalf of the Supplier:**

Name and Title:

██████████

Managing Director

Signature:

████████████████████

Date:

4 March 2021

**For and on behalf of the Customer: Name**

and Title: ██████████, Category

Manager

Signature:

████████████████████

Date: 8th March 2021

## APPENDIX A

### Customer Project Specification

#### 1. Background

##### Brief Description of Requirements

The Engineering and Physical Sciences Research Council (EPSRC) wishes to commission a study to critically review the value and impact of the investments made via the UKRI Plastics Research and Innovation Fund (PRIF). A key aspect of the study will be to quantify the economic, social, cultural, political and environmental impacts of the funded activities. The study will cover the outcomes of the PRIF to date for the multiple individual funding streams, as well as early impacts for the fund as a whole. An integrated narrative is required, demonstrating the value of the fund as a whole, as well as its constituent elements. The key deliverables for this study will be the development of a detailed and in-depth impact report, including quantitative and qualitative analysis of outcomes, and a series of high quality case studies.

##### Completion Date

The final report will be delivered by 6<sup>th</sup> August 2021 with drafts provided to EPSRC for review by 4<sup>th</sup> June 2021.

The 10 case studies will be delivered by 6<sup>th</sup> August 2021 with drafts provided to EPSRC for review by 4<sup>th</sup> June 2021.

##### Background

The £20m Plastics Research and Innovation Fund (PRIF) was established to deliver strategic networking and research that will coordinate existing knowledge across the UK; catalyse new ideas and rapid solutions across the research and innovation landscape and establish UKRI's position with stakeholders as a co-ordinating body for supporting plastics innovation. The intention was that the fund would lay the foundation for the larger national programme being developed under ISCF and would be integrated into that programme from 2019-20 onwards, subject to the ISCF Wave 3 proposal being selected for funding.

The aim of this fund is to explore novel ideas and innovations with potential to deliver more circular economic approaches to plastics. This could include:

- Cleaner and more recyclable plastic alternatives
- Recycling and recovery processes
- Improving the functionality of designed products
- Understanding of plastics materials flows within the economy
- Understanding to inform legislation and incentivise behaviour change.

These innovative solutions were required to be conceived to deliver a positive environmental benefit compared with current systems in both the short and long-term.

##### Objectives

The Plastics Research and Innovation fund will deliver:

- **UK leadership and knowledge exchange through a circular plastics network.**  
Indicators: the creation of a single, organising body of stakeholders and the creation and publishing of a roadmap for change.

- **Enhanced research into sustainable materials, manufacturing and recycling processes, consumer behaviour and systems, within a context of environmental benefit.** Indicators; academic-led 18-month projects to explore novel ideas and solutions.
- **Research and development to support innovation in new polymers, recycling processes and product design.** Indicators: a portfolio of 3 to 18-month feasibility studies and collaborative, industrially-led R&D projects; increased investment in circular plastics innovation through an Investor Partnership approach.

### Benefits being sought

Table 1 - Benefits identified as being sought from the PRIF.

Objectives of programme or project	Main benefits to stakeholder group / customer
<b>Establish UK leadership through a Circular plastics network</b>	<ul style="list-style-type: none"> <li>• By 2020 bring together stakeholders across the UK industry, policy, research and innovation landscape to enable increased cross-sector collaboration</li> <li>• Deliver a roadmap for change, which will inform future public and private R&amp;D investment, including via ISCF, to inform the sector</li> <li>• Encourage knowledge exchange across stakeholders</li> <li>• Underpin bids for a larger national programme to drive adoption of the best practice across the stakeholder group, which will be needed to deliver the roadmap for change.</li> </ul>
<b>Enhanced research into sustainable materials, manufacturing and recycling processes, consumer behaviour and systems, within a context of environmental benefit.</b>	<ul style="list-style-type: none"> <li>• Funding for academic-led projects (up to 18 months) to explore novel ideas and solutions enabling impact in the sector</li> <li>• Research community primed for longer term research activity in collaboration with industry and the wider section through a larger national programme.</li> </ul>
<b>Research and development to support innovation in new polymers, recycling processes and product design.</b>	<ul style="list-style-type: none"> <li>• Funding for 3 to 18 month industrially-led projects to allow activity from early stage proof of concept to later stage industrial research for commercial benefit</li> <li>• De-risking of investment in circular plastics innovation via project funding and Investor Partnership</li> <li>• A pipeline of early-stage projects and collaborations to support longer term industrial research activity through a larger national programme.</li> </ul>

The PRIF is comprised of three overall streams of activity; 1) Leadership and Knowledge Exchange in collaboration with the Waste and Resources Action Programme (WRAP) and via the UK Circular Plastics Network (UKCPN) (c. £2M). Knowledge exchange between academics, business, policy makers and third-sector organisations such as WRAP is crucial in ensuring that innovative research can positively impact business processes, within the context of a supportive and effective policy framework.), 2) Research via the Plastics 'Creativity' Fund (c. £8M), 3) a Business-led Research and Development programme (c. £10M)

The PRIF is managed by UK Research and Innovation (UKRI) and delivered via the Engineering and Physical Sciences Research Council (EPSRC), Innovate UK, and the Natural Environment Research Council (NERC). The delivery team is working together with sustainability experts WRAP to network and connect PRIF with plastic initiatives across business, government, and the research community to encourage knowledge exchange, identify future research and innovation priorities, and to enable the transition to a circular plastics economy.

## 2. Aims and Objectives of the Project

### Aims and Objectives

This study will evaluate the outcomes and early impacts of the PRIF through the development of a detailed and in-depth impact report, including a series of high quality case studies, to assess the extent to which the benefits sought have been achieved (see Table 1 for details). The outcomes and benefits of each activity should be linked to each of the relevant main benefits to [the] stakeholder group / customer, as listed in Table 1.

The PRIF has involved investment by a number of different routes to both academia and business and third sector organisations. There is a requirement to represent a holistic review of the impact of the fund and its constituent investments. The report and case studies should reflect integrated cross cutting outcomes and impacts of the programme as a whole, as well as individual outcomes and impacts from specific funding streams / projects. **This outcome and impact evaluation activity will help to identify and demonstrate the benefits of the investment in the PRIF programme.**

The PRIF is delivering the following three streams of activity -

**Leadership and Knowledge Exchange in collaboration with WRAP and via the UK Circular Plastics Network:** create a coordinated, integrated and aligned community of stakeholders from across academia, industry, government and the third-sector; via a single organising body. In addition, to create and publish a roadmap for change.

**Research: Plastics 'Creativity' Funding** via a portfolio of academic-led two year projects to explore novel ideas and solutions.

**Business-led Research and Development: Plastics 'Innovation' Funding** via a portfolio of 3 to 18-month feasibility studies and collaborative, industrially-led R&D projects

The purpose of this activity is to -

1. Present an integrated outcome and impact evaluation of the three themes of activity within the PRIF programme in terms of their individual outputs, outcomes and impacts i.e. the extent to which each constituent part has met the PRIF's objectives, complimented and/or reinforced each other and achieved the benefits sought (see Table 1 for details). The main benefits realised should be clearly identified, articulated and substantiated using qualitative and where possible quantitative evidence.
2. Present an integrated initial impact evaluation on the PRIF programme as a whole to showcase the extent to which the impact of the three themes of activity have and/or will result in/contribute towards system level change in the UK.
3. Present a series of case studies illustrative of the variety of activities, outputs, outcomes and impacts resulting from the PRIF that can be used to advocate for further investment.

It is intended that the study will demonstrate the extent to which the PRIF has been successful in its aim of creating a coordinated, integrated and aligned community of stakeholders from across academia, industry and government. Also the extent to which the PRIF is creating

positive impact in delivering the UK Government's goal of achieving **zero avoidable plastic waste by the end of 2042**. It is for the successful bidder to review the PRIF's success in delivering circular economic, societal, political and/or cultural approaches to plastics and how the PRIF has delivered a positive environmental benefit compared with current systems in both the short and long-term.

This could include -

- Cleaner and more recyclable plastic alternatives
- Recycling and recovery processes
- Improving the functionality of designed products
- Understanding of plastics materials flows within the economy
- Understanding to inform legislation and incentivise behaviour change.

## **Outcomes**

The outcomes of the study will include:

- Enhanced understanding of the impact and value of investment of the PRIF
- Evidence for use in making future investments and strategies for the future support of the research and innovation area to drive continued impact and/or address gaps
- Understanding of how the PRIF has influenced the plastics research and innovation ecosystem, in particular through evaluating how far the benefits sought have been achieved (see Table 1 for details). The main benefits realised and how they have changed the ecosystem should be clearly identified, articulated and substantiated using qualitative and where possible quantitative evidence.
- Attribution/added value of UKRI investment and insight into links between stages of the route to impact (e.g. where specific activities have led to specific outcomes, where a specific outcome has led to specific impacts).

## **Key Evaluation Questions**

The key questions the study will answer include -

- To what extent has the PRIF reduced impact on the environment and health from plastics manufacture and disposal (e.g. increased levels of recycling and reuse)?
- To what extent has the PRIF helped to create novel, sustainable plastics (including bioplastics and composites) for use in the packaging, textile, automotive and energy sectors?
- To what extent have businesses benefitted from improved resource efficiency and the associated reduction in production costs as a result of the PRIF?
- To what extent have UK businesses grown their share of the market for sustainable and biodegradable plastics, plastic products and technologies as a result of the PRIF?
- To what extent has the PRIF positioned the UK at the forefront globally of the transition to a circular economy for plastics?
- To what extent has the PRIF helped the UK to reach the target of zero avoidable plastic waste by 2042?

In order to answer the key questions, we would like the study to gather qualitative and quantitative data for the following:

### **Impact on Research**

What has the impact of the PRIF been on research, for example:

- What technical and scientific advances has the PRIF enabled
- What effect has the funding had on the research landscape, (e.g. facilitating collaborations between disciplines, academia and industry etc., increasing research activity in this space)?

- What impact has this investment had on international collaboration?
- What impact has this investment had on training across different career stages in academia?

### **Economic Impact**

What has the overall economic impact of our investments been, for example:

- What additional contributions have been leveraged through PRIF funding and from which sources? Has this contributed to any direct foreign investment, and if so in what areas?
- Which sectors have benefitted from the research enabled by PRIF funding and how?
- What effects has this investment had on regional growth, local economies and jobs? How does the UK compare internationally as a result of this?
- What evidence is there that the PRIF has led to business benefits, for example via cost savings, increased turnover, imports and exports?
- What impact has the PRIF had on innovation, for example, spin-offs, development of innovation clusters, use by business for innovation etc.?
- What return on investment has already arisen, or is likely to arise from the PRIF investment

### **Skills Impact**

What has the impact of PRIF been on developing skills for the future in the circular economy sector, for example:

- How has the PRIF contributed to skills training, for example for PhD students, technicians and others?
- What tangible impact has this had on industry in areas of growth for the UK economy?

### **Social, Cultural and Policy Impact**

What Social, Cultural and Policy impacts have PRIF led to, for example:

- How has PRIF helped to influence key societal challenges (e.g. consumer, understanding of attitudes towards and behaviours in reducing, recycling and reusing plastic products)?
- What policy impacts has PRIF facilitated in the influencing of these challenges?

### **Environmental Impact**

- How has the understanding of use/reuse, recovery, recycling and/or disposal of plastics changed due to the PRIF
- What are the *main* environmental impacts of any changes to the patterns of use/reuse, recovery, recycling and/or disposal of plastics driven by the PRIF?

### **Out of Scope**

The outputs, outcomes and early impacts of activities directly supported, either wholly or in part, by the UKRI Plastics Research and Innovation Fund are to be evaluated only. Other activities associated with the outcomes and impacts which would demonstrably have occurred without the PRIF are out of scope of this evaluation.

### **Data and other information provided by EPSRC to help the study**

The following data and information will be made available to assist the study and it is expected that an analysis of this data will be provided as part of the report

- A list of every funded PRIF academic project and CR&D projects supported to date including; Grant Reference Number, Project Title, Principal Investigator, Scheme, Start date, End date, Value etc.
- Industrial partners for each of the above grants.

- Quarterly reports from the academic projects.
- A list of outputs from PRIF projects (publications, patents, spin outs etc.) collected from ResearchFish and data extracted from Innovate UK Project Close out reports
- Data from Grants on the Web (<https://epsrc.ukri.org/links/gow-links/grants-on-the-web-gow/>), and Gateway to Research (<http://gtr.ukri.org/>)
- A list of useful contacts (this is not in any way expected to be exhaustive but will be a starting point to allow a fast start for the successful consultancy) e.g. academic project representatives, PIs from CR&D rounds, WRAP, UKPCN, Sky Ocean Ventures etc.
- A number of popular scientific story vignettes on PRIF produced by a science writer.
- The output of the internal mid-term review (of the 8 academic projects primarily) and the output from the associated workshop.
- Dashboard reports from the UK Circular Plastics Network (UKCPN)
- Plastics Roadmap. – UKCPN published summary and the 300+ page unpublished document.
- Evaluation Framework and Logic Model - to assess progress against.
- The PRIF Business Case
- Additional mini-Business Case and other documentation related to non-Competition investment, e.g. India Pact project

It will be expected that any additional data collection will take account of what is already available and be designed to minimise additional burden on researchers.

By using a combination of benefits identified (through the questions posed above), we hope that it will be possible to derive some indicative figures for the 'Return on Investment' (ROI) of PRIF funding.

This study should follow government guidance on evaluations as outlined in the Magenta book

([https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/879438/HMT\\_Magenta\\_Book.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/879438/HMT_Magenta_Book.pdf))

which is a complementary guidance to the H. M. Treasury Green Book 6 ([https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/685903/The\\_Green\\_Book.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/685903/The_Green_Book.pdf)).

### 3. Suggested Methodology

<b>Total number of Participants (experimental design)</b>	> 50 (all funded projects)
<b>Total number of Interviews (survey)</b>	> 50 (all funded projects)
<b>Total number of Interviews (qualitative)</b>	≥ 16 (all 8 academic projects and a minimum of two from each of the other 4 funding initiatives)
<b>Total number of Case Studies</b>	≥ 10, 2 or more for each of the impact parameters listed above.
<b>Any other specific requirements</b>	<p><u>Surveys</u></p> <p>All the funded projects should be surveyed, where possible including project partners (e.g. Co-Investigators and industrial collaborators on academic projects, co-funders and third-sector collaborators on industrial projects etc.). In order to facilitate compliance with GDPR UKRI will be willing to act as an</p>

	<p>intermediary, to a proportionate degree, between the appointed contractor and the grant holders.</p> <p><u>Qualitative interviews</u></p> <p>The following types and numbers of projects have been funded; academic = 8; collaborative R&amp;D = 15; co-funded with Sky Ocean Ventures = 9; coordinated with the Waste and Resources Action Programme = 6-8; Designing sustainable plastic solutions competition = 10-15.</p> <p>Qualitative interviews are required from all eight academic projects and a representative subset (<math>\geq 2</math>) from each of the other funding initiatives.</p>
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The bidder is expected to propose methodologies and plans of how they are going to progress and deliver this study addressing the challenges of impact assessment. However, we would expect a mixture of quantitative and qualitative methods including surveys and interviews with stakeholders and representatives from funded PRIF projects, desk-based research and subsequent analysis of relevant materials held by EPSRC/UKRI to contribute towards producing the report and the case studies. The information from these case studies will be used to tie into the overarching story of the impact that the PRIF has had, and the benefits sought achieved (see Table 1 for details), that will be explained in the report.

The study should clearly outline any assumptions that are used on any ROI estimation, these might include measures of deadweight, spill overs and leakages where possible. We would like to see these considerations in the proposal. Given the nature of the study there will be an expectation of relying on estimates drawn from the wider literature, the expectation is that proposals would highlight why these are the best and represent robust estimates in order to help the study draw quantifiable conclusions. Additionally, the bidder should consider the challenges and limitations for the evaluation and propose measures to address these where it is feasible.

The impact analysis of UKRI's investments in the area of plastics research and innovation should be structured in such a way as to reflect UKRI's use of logic models for capturing routes to impact. The logic model for the PRIF Programme will be provided to the successful bidder (a logic model template is provided in Table 2). The primary focus should be on economic and socioenvironmental impacts, however broader impacts should be considered (see Table 3 for detail).

Table 2 - Illustrative Impact logic model (with example indicators)

Impact pathway	Inputs	Activities	Outputs	Intermediate outcomes	Impacts
<i>Knowledge (research excellence)</i>	EPSRC funding £ Strategic interventions (calls for proposals, sandpits etc.)	Research Investigators Multi-disciplinary collaborations	Publications Citations University leverage £cash/kind	Research quality Capability Facilities Strategic research growth in a region or institution	Internationally leading research Advances in current knowledge UK research capacity

<i>Economy (knowledge exchange, early stage commercialisation)</i>		Business collaborations Knowledge exchange events	Sector coverage Direct partner leverage £ cash/in-kind Joint publications IP activity  Spin-outs and joint ventures  Follow on activity E.g. Proof-of-concept projects Demonstrators  New innovation clusters, use by business for innovation	Benefits to directly relevant companies: new investment, cost savings, turnover, profit and exports  More relevant projects for users  Products, tools and services to market and delivering value  Inward investment deals	Sectoral impact: productivity, value, exports, jobs, innovation Clusters
<i>People and Skills</i>		Staff – research / other  Doctoral and masters students  Courses	Secondments Doctoral completions Masters completions Training completed	Skills supply for the sector	Jobs in sector
<i>Society / Environment</i>		Public engagement events  Stakeholder involvement and consultations	Policy, safety and efficacy advice  Projects adapted or developed	Public policy, standards and regulatory standards influence More relevant projects for public / consumer  Diverse recruitment  Changed perceptions	Environmental -e.g. reduced CO2, pollutant emissions and waste to landfill  Societal - e.g. consumer behaviour change, health impacts

Table 3 – Types of Impact

<i>Knowledge</i>	Scientific advances, techniques
<i>People</i>	Skills, people pipelines

<i>Economy</i>	Wealth creation, inward investment, new companies, products and procedures
<i>Society</i>	Quality of life, health, international development, policy

### **Interaction with successful bidder**

We expect the successful bidder to work closely with EPSRC and the Programme Management Board, to develop the approaches and methods by which the questions proposed in the study could be answered. Regular progress updates should be provided to the EPSRC and the Programme Management Board through fortnightly phone/email update and 'face to face' virtual meetings and conference calls - it is expected that the successful bidder will detail work undertaken to date and any items needing attention. These meetings may result in shaping and refining the on-going work. In addition, the successful bidder will be expected to work with the UKCPN to uncover additional information that will support the evaluation activity. The UKCPN acts as both a network "hub" for the plastics industry in the UK and a repository for some of its research outputs, e.g. the outputs of the Roadmapping exercise and a conference proceedings volume from a PRIF academic projects event held in June 2020.

Updates and deliverables should include, but not be limited to, datasets gathered as a result of the exercise, development of the report, risk register, case studies and any other qualitative outputs generated, contact with appropriate stakeholders, progress against delivery and spend to date and a report summarising the findings and the underlying basis on which these findings have been derived.

**Any issues should be raised promptly with EPSRC.**

## **4. Deliverables**

### **All deliverables due by 6<sup>th</sup> August 2021 –**

- A draft report for review by UKRI. A single consolidated set of comments will be provided.
- A final report based on study findings agreed by UKRI and the delivery team.
- A minimum of 10 case studies depicting the academic, economic, environmental, social, cultural and political impacts of the PRIF agreed by the delivery team.
- Datasets gathered as a result of the exercise.
- Other qualitative outputs generated.
- An explanation of the methodology used for any ROI calculations.
- Any model or modelling tools used to estimate economic impacts.

The outputs of this study are expected to be a report containing a wealth of qualitative and quantitative evidence to highlight the impact of the PRIF and the extent to which the benefits sought have been achieved (see Table 1 for details). A range of robust evidence should be provided with linkages to specific themes, activities, investments and benefits realised to help with future funding. In addition, retention or building of capacity and capability in key areas that have enabled the UK to hold a leadership position internationally should be highlighted.