

S1 - PRECEDENT CONTRACT FOR THE PURCHASE OF SERVICES

SECTION A

This Contract is dated Wednesday 3rd March 2021.

Parties

- (1) **The Department for Business, Energy and Industrial Strategy (BEIS)**, 1 Victoria Street Westminster, London SW1H 0ET (**The Contracting Authority**).
- (2) **London Economics Limited**, a company incorporated and registered in England, United Kingdom with company number **04083204** whose registered office is at Somerset House, New Wing, Strand, London, WC2R 1LA (**The Supplier**).

Background

The Contracting Authority wishes the Supplier to supply, and the Supplier wishes to supply, the Services (as defined below) in accordance with the terms of the Contract (as defined below).

A1 Interpretation

A1-1 **Definitions.** In the Contract (as defined below), the following definitions apply:

Agent: Where UK Shared Business Services is not the named Contracting Authority is Parties (1), UK SBS has been nominated as agent on behalf of the Contracting Authority and therefore all communications both written and verbal will be received as issued by the Contracting Authority.

Associated Bodies and Authorised Entities: Associated Bodies and Authorised Entities include but are not limited to The Science and Technology Facilities Council, The Medical Research Council, The Engineering and Physical Sciences Research Council, The Economic and Social Research Council, The Natural Environment Research Council, The Arts and Humanities Research Council, The Biotechnology and Biological Sciences Research Council, UK SBS Ltd, Central Government Departments and their Agencies, Non Departmental Public Bodies, NHS bodies, Local Authority's, Voluntary Sector Charities, and/or other private organisations acting as managing agents or procuring on behalf of these UK bodies. Further details of these organisations can be found at: <http://www.uksbs.co.uk/services/procure/contracts/Pages/default.aspx>

Business Day: a day (other than a Saturday, Sunday or public holiday) when banks in London are open for business.

Charges: the charges payable by the Contracting Authority for the supply of the Services in accordance with clause B4.

Commencement: the date and any specified time that the Contract starts

Conditions: the terms and conditions set out in this document as amended from time to time in accordance with clause C7-11.

Confidential Information: any confidential information, knowhow and data (in any form or medium) which relates to UK SBS, the Contracting Authority or the Supplier, including information relating to the businesses of UK SBS, the Contracting Authority or the Supplier and information relating to their staff, finances, policies and procedures. This includes information identified as confidential in the Order or the Special Conditions (if any).

Contract: the contract between the Contracting Authority and the Supplier for the supply of the Services, in accordance with these Conditions, any Special Conditions and the Order only.

Contracting Authority: The Department of Business Energy and Industrial Strategy, as specified at Section A (1) and any replacement or successor organisation.

Delivery Date (Services): the date or dates specified in the Order when the Services shall commence as set out in the Order and until the end date specified in the Order

Deliverables: all Documents, products and materials developed by the Supplier or its agents, contractors and employees as part of or in relation to the Services in any form, including computer programs, data, reports and specifications (including drafts).

Document: includes, in addition to any document in writing, any drawing, map, plan, diagram, design, picture or other image, tape, disk or other device or record embodying information in any form.

EIR: The Environmental Information Regulations 2004 together with any guidance and/or codes of practice issued by the Information Commissioner or relevant government department in relation to such regulations.

FOIA: The Freedom of Information Act 2000 and any subordinate legislation made under the Act from time to time, together with any guidance and/or codes of practice issued by the Information Commissioner or relevant government department in relation to such legislation.

GDPR: The General Data Protection Regulations as amended from time to time.

Information: has the meaning given under section 84 of FOIA.

Intellectual Property Rights: all patents, rights to inventions, utility models, copyright and related rights, trademarks, service marks, trade, business and domain names, rights in trade dress or get-up, rights in goodwill or to sue for passing off, unfair competition rights, rights in designs, rights in computer software, database right, topography rights, rights in confidential information (including know-how and trade secrets) and any other intellectual property rights, in each case whether registered or unregistered and including all applications for and renewals or extensions of such rights, and all similar or equivalent rights or forms of protection in any part of the world.

Order: the Contracting Authority's order for the Services, as set out in the Contracting Authority's completed purchase order form (including any Specification) which is in the format of the pro forma order form attached at Schedule 2. For the avoidance of doubt, if the Contracting Authority's purchase order form is not in the format of the pro forma order form at Schedule 2, it will not constitute an Order.

Public Body: any part of the government of the United Kingdom including but not limited to the Northern Ireland Assembly and Executive Committee, the Scottish Executive and the National Assembly for Wales, local authorities, government ministers and government departments and government agencies.

Request for Information: a request for Information or an apparent request under FOIA or EIR.

Scheme Effective Date: the date on which the United Kingdom Research and Innovation become a legal entity.

Services: The Services, including without limitation any Deliverables, Deliverables and Supplies required to complete the Services, to be provided by the Supplier

under the Contract as set out in the Order.

Special Conditions: the special conditions (if any) set out in Schedule 1.

Specification: any specification for the Services or Supplies, including any related plans and drawings that is supplied to the Supplier by the Contracting Authority, or produced by the Supplier and agreed in writing by the Contracting Authority.

Supplier or Suppliers: the parties to the contract as named in Section A (2).

Supplies: any such thing that the Supplier is required to Deliver, that does not require or include Services or Deliverables

Supplier's Associate: any individual or entity associated with the Supplier including, without limitation, the Supplier's subsidiary, affiliated or holding companies and any employees, agents or contractors of the Supplier and / or its subsidiary, affiliated or holding companies or any entity that provides Services for or on behalf of the Supplier.

TUPE: The Transfer of Undertakings (Protection of Employment) Regulations 2006 as amended or replaced from time to time.

UKRI: UK Research Council and Innovation, established as a body corporate in accordance with the Higher Education and Research Act 2017.

UK SBS: UK Shared Business Services Limited (a limited company registered in England and Wales with company number 06330639). Where UK SBS is not named as the Contracting Authority within section A (1), UK SBS will be acting as an agent on behalf of the Contracting Authority.

Working Day: any Business Day excluding 27, 28, 29, 30 and 31 December in any year.

A1-2 **Construction.** In the Contract, unless the context requires otherwise, the following rules apply:

A1-2-1 A **person** includes a natural person, corporate or unincorporated body (whether or not having separate legal personality).

A1-2-2 A reference to a party includes its personal representatives, successors or permitted assigns.

A1-2-3 A reference to a statute or statutory provision is a reference to such statute or provision as amended or re-enacted. A reference to a statute or statutory provision includes any subordinate legislation made under that statute or statutory provision, as amended or re-enacted.

A1-2-4 Any phrase introduced by the terms **including, include, in particular** or any similar expression shall be construed as illustrative and shall not limit the sense of the words preceding those terms.

A1-2-5 The headings in these Conditions are for ease of reference only and do not affect the interpretation or construction of the Contract.

A1-2-6 A reference to **writing** or **written** includes faxes and e-mails.

A2 Basis of contract

A2-1 Where UK SBS is not the Contracting Authority, UK SBS is the agent of the Contracting Authority for the purpose of procurement and is authorised to negotiate and enter into contracts for the supply of Services on behalf of the Contracting Authority. UK SBS will not itself be a party to, nor have any liability under, the Contract unless it is expressly specified as Contracting Authority in the Order.

- A2-2 The terms of this Contract, any Special Conditions and the Order apply to the Contract to the exclusion of all other terms and conditions, including any other terms that the Supplier seeks to impose or incorporate (whether in any quotation, confirmation of order, in correspondence or in any other context), or which are implied by trade, custom, practice or course of dealing.
- A2-3 If there is any conflict or inconsistency between the terms of this Contract, the Special Conditions (if any) and the Order (including any Specification), the terms of the Contract will prevail over the Special Conditions and the Special Conditions will prevail over the Order (including any Specification), in each case to the extent necessary to resolve that conflict or inconsistency.
- A2-4 The Order constitutes an offer by the Contracting Authority to purchase the Services in accordance with this Contract (and any Special Conditions). This offer shall remain valid for acceptance by the Supplier, in accordance with clause A2-5, for 28 days from the date of the Order. Notwithstanding that after 28 days the offer will have expired, the Contracting Authority may, at its discretion, nevertheless treat the offer as still valid and may elect to accept acceptance by the Supplier, in accordance with clause A2-5, as valid acceptance of the offer.
- A2-5 Subject to clause A2-4, the Order shall be deemed to be accepted on the date on which authorised representatives of both parties have signed a copy of this Contract, at which point the Contract shall come into existence. The Contract shall remain in force until all the parties' obligations have been performed in accordance with the Contract, at which point it shall expire, or until the Contract has been terminated in accordance with clause A3.

A3 Termination

- A3-1 The Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority may terminate the Contract in whole or in part at any time before the Services are provided with immediate effect by giving the Supplier written notice, whereupon the Supplier shall discontinue all work on the Contract. The Contracting Authority shall pay the Supplier fair and reasonable compensation for work-in-progress at the time of termination, but such compensation shall not include loss of anticipated profits or any consequential loss. The Supplier shall have a duty to mitigate its costs and shall on request provide proof of expenditure for any compensation claimed.
- A3-2 The Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority may terminate the Contract with immediate effect by giving written notice to the Supplier if:
- A3-2-1 the circumstances set out in clauses B2-1-1, C3 or C4-1 apply;
 - A3-2-2 the Supplier breaches any term of the Contract and (if such breach is remediable) fails to remedy that breach within 30 days of being notified in writing of the breach; or
 - A3-2-3 the Supplier suspends, or threatens to suspend, payment of its debts or is unable to pay its debts as they fall due or admits inability to pay its debts or (being a company) is deemed unable to pay its debts within the meaning of section 123 of the Insolvency Act 1986, or (being an individual) is deemed either unable to pay its debts or as having no reasonable prospect of so doing, in either case, within the meaning of section 268 of the Insolvency Act 1986, or (being a partnership) has any partner to whom any of the foregoing apply; or
 - A3-2-4 the Supplier commences negotiations with all or any class of its creditors with a view to rescheduling any of its debts, or makes a proposal for or enters into any compromise or arrangement with its creditors; or

- A3-2-5 (being a company) a petition is filed, a notice is given, a resolution is passed, or an order is made, for or in connection with the winding up of the Supplier; or
- A3-2-6 (being an individual) the Supplier is the subject of a bankruptcy petition or order; or
- A3-2-7 a creditor or encumbrancer of the Supplier attaches or takes possession of, or a distress, execution, sequestration or other such process is levied or enforced on or sued against, the whole or any part of its assets and such attachment or process is not discharged within 14 days; or
- A3-2-8 (being a company) an application is made to court, or an order is made, for the appointment of an administrator or if a notice of intention to appoint an administrator is given or if an administrator is appointed over the Supplier; or
- A3-2-9 (being a company) a floating charge holder over the Supplier's assets has become entitled to appoint or has appointed an administrative receiver; or
- A3-2-10 a person becomes entitled to appoint a receiver over the Supplier's assets or a receiver is appointed over the Supplier's assets; or
- A3-2-11 any event occurs, or proceeding is taken, with respect to the Supplier in any jurisdiction to which it is subject that has an effect equivalent or similar to any of the events mentioned in clause A3-2-3 to clause A3-2-10 inclusive; or
- A3-2-12 there is a change of control of the Supplier (within the meaning of section 1124 of the Corporation Tax Act 2010); or
- A3-2-13 the Supplier suspends, or threatens to suspend, or ceases or threatens to cease to carry on, all or substantially the whole of its business; or
- A3-2-14 the Supplier's financial position deteriorates to such an extent that in the Contracting Authority's opinion the Supplier's capability to adequately fulfil its obligations under the Contract has been placed in jeopardy; or
- A3-3 Termination of the Contract, however arising, shall not affect any of the parties' rights and remedies that have accrued as at termination. Clauses which expressly or by implication survive termination or expiry of the Contract shall continue in full force and effect.
- A3-4 Without prejudice to clause A3-3, clauses B1, B2, B5, B6, B7, B8, B9, C1, C2, C3, C4, C6 and C7 shall survive the termination or expiry of the Contract and shall continue in full force and effect.
- A3-5 Upon termination or expiry of the Contract, the Supplier shall immediately:
- A3-5-1 cease all work on the Contract;
- A3-5-2 Deliver to the Contracting Authority all Deliverables and all work-in-progress whether or not then complete. If the Supplier fails to do so, then the Contracting Authority may enter the Supplier's premises and take possession of them. Until they have been returned or delivered, the Supplier shall be solely responsible for their safe keeping and will not use them for any purpose not connected with this Contract;
- A3-5-3 cease use of and return (or, at the Contracting Authority's or UK SBS's acting as an agent on behalf of the Contracting Authority's election, destroy) all of the Contracting Authority's Materials in the Supplier's possession or control; and

A3-5-4 Cease all use of, and delete all copies of, UK SBS's or the Contracting Authority's or UK SBS's confidential information.

SECTION B

B1 Supply of Services

- B1-1 The Supplier shall from the date set out in the Contract and until the end date specified in the Contract provide the Services to the Contracting Authority in accordance with the terms of the Contract.
- B1-2 The Supplier shall meet any performance dates for the Services (including the delivery of Deliverables) specified in the Order (including any Special Conditions and any applicable Specification) or notified to the Supplier by the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority.
- B1-3 In providing the Services, the Supplier shall:
- B1-3-1 co-operate with the Contracting Authority in all matters relating to the Services, and comply with all instructions of the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority;
 - B1-3-2 perform the Services with reasonable skill and care and in accordance with all generally recognised commercial standards and practices for services of the nature of the Services;
 - B1-3-3 use personnel who are suitably skilled and experienced to perform tasks assigned to them, and in sufficient number to ensure that the Supplier's obligations are fulfilled in accordance with this Contract;
 - B1-3-4 ensure that the Services and Deliverables will conform with all descriptions and specifications set out in the Contract (including any Special Conditions and any applicable Specification), and that the Deliverables shall be fit for any purpose expressly or impliedly made known to the Supplier by the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority;
 - B1-3-5 provide all equipment, tools and vehicles and such other items as are required to provide the Services;
 - B1-3-6 use the best quality Supplies, materials, standards and techniques, and ensure that the Deliverables, and all Supplies and materials supplied and used in the Services or transferred to the Contracting Authority, will be free from defects in workmanship, installation and design;
 - B1-3-7 obtain and at all times maintain all necessary licences and consents, and comply with all applicable laws and regulations;
 - B1-3-8 observe all health and safety rules and regulations and any other security requirements that apply at any of the Contracting Authority's premises; and
 - B1-3-9 Not do or omit to do anything which may cause the Contracting Authority to lose any licence, authority, consent or permission on which it relies for the purposes of conducting its business, and the Supplier acknowledges that the Contracting Authority may rely or act on the Services.
- B1-4 The Contracting Authority's rights under the Contract are without prejudice to and in addition to the statutory terms implied in favour of the Contracting Authority under the Supply of Goods and Services Act 1982 and any other applicable legislation.
- B1-5 Without prejudice to the Contracting Authority's statutory rights, the Contracting Authority will not be deemed to have accepted any Deliverables until the Contracting Authority has had at least 14 Working Days after delivery to inspect

them and the Contracting Authority also has the right to reject any Deliverables as though they had not been accepted for 14 Working Days after any latent defect in the Deliverables has become apparent.

B1-6 If, in connection with the supply of the Services, the Contracting Authority permits any employees or representatives of the Supplier to have access to any of the Contracting Authority's premises, the Supplier will ensure that, whilst on the Contracting Authority's premises, the Supplier's employees and representatives comply with:

B1-6-1 all applicable health and safety, security, environmental and other legislation which may be in force from time to time; and

B1-6-2 any Contracting Authority policy, regulation, code of practice or instruction relating to health and safety, security, the environment or access to and use of any Contracting Authority` laboratory, facility or equipment which is brought to their attention or given to them whilst they are on Contracting Authority's premises by any employee or representative of the Contracting Authority's.

B1-7 The Supplier warrants that the provision of Services shall not give rise to a transfer of any employees of the Supplier or any third party to the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority pursuant to TUPE.

B2 Contracting Authority Remedies

B2-1 If the Supplier fails to perform the Services by the applicable dates, the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority shall, without limiting its other rights or remedies, have one or more of the following rights:

B2-1-1 to terminate the Contract with immediate effect by giving written notice to the Supplier;

B2-1-2 to refuse to accept any subsequent performance of the Services (including delivery of Deliverables) which the Supplier attempts to make;

B2-1-3 to recover from the Supplier any costs incurred by the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority in obtaining substitute Services from a third party;

B2-1-4 where the Contracting Authority has paid in advance for Services that have not been provided by the Supplier, to have such sums refunded by the Supplier; or

B2-1-5 To claim damages for any additional costs, loss or expenses incurred by the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority which are in any way attributable to the Supplier's failure to meet such dates.

B2-2 These Conditions shall extend to any substituted or remedial Services provided by the Supplier.

B2-3 The Contracting Authority's rights under this Contract are in addition to its rights and remedies implied by statute and common law.

B3 Contracting Authority Obligations

B3-1 The Contracting Authority shall:

B3-1-1 provide the Supplier with reasonable access at reasonable times to the Contracting Authority's premises for the purpose of providing the Services;

and

B3-1-2 Provide such information to the Supplier as the Supplier may reasonably request and the Contracting Authority considers reasonably necessary for the purpose of providing the Services.

B4 Charges and Payment

B4-1 The Charges for the Services shall be set out in the Order and shall be the full and exclusive remuneration of the Supplier in respect of the performance of the Services. Unless otherwise agreed in writing by the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority, the Charges shall include every cost and expense of the Supplier directly or indirectly incurred in connection with the performance of the Services.

B4-2 Where the Order states that the Services are to be provided on a time and materials basis, the Charges for those Services will be calculated as follows:

B4-2-1 the charges payable for the Services will be calculated in accordance with the Supplier's standard daily fee rates (as at the date of the Order), subject to any discount specified in the Order;

B4-2-2 the Supplier's standard daily fee rates for each individual person will be calculated on the basis of an eight-hour day worked between such hours and on such days as are agreed by the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority and the Supplier;

B4-2-3 the Supplier will not be entitled to charge pro-rata for part days without the prior written consent of the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority;

B4-2-4 the Supplier will ensure that every individual whom it engages to perform the Services completes time sheets recording time spent on the Services and the Supplier will use such time sheets to calculate the charges covered by each invoice and will provide copies of such time sheets to the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority upon request; and

B4-2-5 the Supplier will invoice the Contracting Authority monthly in arrears for its charges for time, as well as any previously agreed expenses and materials for the month concerned calculated as provided in this clause B4-2 and clause B4-3

B4-3 The Contracting Authority will reimburse the Supplier at cost for all reasonable travel, subsistence and other expenses incurred by individuals engaged by the Supplier in providing the Services to the Contracting Authority provided that the Contracting Authority's prior written approval is obtained before incurring any such expenses, that all invoices for such expenses are accompanied by valid receipts and provided that the Supplier complies at all times with Contracting Authority's expenses policy from time to time in force.

B4-4 The Supplier shall invoice the Contracting Authority on completion of the Services. Each invoice shall include such supporting information required by the Contracting Authority to verify the accuracy of the invoice, including but not limited to the relevant purchase order number.

B4-5 In consideration of the supply of the Services by the Supplier, the Contracting Authority shall pay the invoiced amounts within 30 days of the date of a correctly rendered invoice. Payment shall be made to the bank account nominated in writing by the Supplier unless the Contracting Authority agrees in writing to another payment method.

- B4-6 All amounts payable by the Contracting Authority under the Contract are exclusive of amounts in respect of value added tax chargeable for the time being (**VAT**). Where any taxable supply for VAT purposes is made under the Contract by the Supplier to the Contracting Authority, the Contracting Authority shall, on receipt of a valid VAT invoice from the Supplier, pay to the Supplier such additional amounts in respect of VAT as are chargeable on the supply of the Services at the same time as payment is due for the supply of the Services.
- B4-7 The Supplier shall maintain complete and accurate records of the time spent and materials used by the Supplier in providing the Services and shall allow the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority to inspect such records at all reasonable times on request.
- B4-8 The Supplier shall not be entitled to assert any credit, set-off or counterclaim against the Contracting Authority in order to justify withholding payment of any such amount in whole or in part. The Contracting Authority may, without limiting any other rights or remedies it may have, set off any amount owed to it by the Supplier against any amounts payable by it to the Supplier under the Contract.
- B4-9 The Supplier acknowledges and agrees that it will pay correctly rendered invoices from any of its suppliers or other sub-contractors within 30 days of receipt of the invoice.

B5 Contracting Authority Property

- B5-1 The Supplier acknowledges that all information (including confidential information), equipment and tools, drawings, specifications, data, software and any other materials supplied by the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority to the Supplier (**Contracting Authority's Materials**) and all rights in the Contracting Authority's Materials are and shall remain at all times the exclusive property of the Contracting Authority and UK SBS (as appropriate). The Supplier shall keep the Contracting Authority's Materials in safe custody at its own risk, maintain them in good condition until returned to the Contracting Authority or UK SBS, and not dispose or use the same other than for the sole purpose of performing the Supplier's obligations under the Contract and in accordance with written instructions or authorisation from the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority.

B6 Intellectual Property Rights

- B6-1 In respect of any Supplies that are transferred to the Contracting Authority under this Contract, including without limitation the Deliverables or any part of them, the Supplier warrants that it has full clear and unencumbered title to all such items, and that at the date of delivery of such items to the Contracting Authority, it will have full and unrestricted rights to transfer all such items to the Contracting Authority.
- B6-2 Save as otherwise provided in the Special Conditions, the Supplier assigns to the Contracting Authority, with full title guarantee and free from all third party rights, all Intellectual Property Rights in the products of the Services, including for the avoidance of doubt the Deliverables. Where those products or Deliverables incorporate any Intellectual Property Rights owned by or licensed to the Supplier which are not assigned under this clause, the Supplier grants to the Contracting Authority a worldwide, irrevocable, royalty-free, transferable licence, with the right to grant sub-licences, under those Intellectual Property Rights to maintain, repair, adapt, copy and use those products and Deliverables for any purpose.
- B6-3 The Supplier shall obtain waivers of all moral rights in the products, including for the avoidance of doubt the Deliverables, of the Services to which any individual is

now or may be at any future time entitled under Chapter IV of Part I of the Copyright Designs and Patents Act 1988 or any similar provisions of law in any jurisdiction.

- B6-4 The Supplier shall, promptly at the request of the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority, do (or procure to be done) all such further acts and things and the execution of all such other documents as the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority may from time to time require for the purpose of securing for the Contracting Authority the full benefit of the Contract, including all right, title and interest in and to the Intellectual Property Rights assigned to the Contracting Authority in accordance with clause B6-2.

B7 Indemnity

- B7-1 The Supplier shall indemnify, and shall keep indemnified the Contracting Authority and UK SBS acting as an agent on behalf of the Contracting Authority, in full against all costs, expenses, damages and losses (whether direct or indirect), including any interest, fines, legal and other professional fees and expenses awarded against or incurred or paid by the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority as a result of or in connection with:
- B7-1-1 any claim made against the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority by a third party arising out of, or in connection with, the supply of the Services, to the extent that such claim arises out of the breach, negligent performance or failure or delay in performance of the Contract by the Supplier, its employees, agents or subcontractors; and
 - B7-1-2 any claim brought against the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority for actual or alleged infringement of a third party's Intellectual Property Rights arising out of, or in connection with, the receipt, use or supply of the Services; and
 - B7-1-3 Any claim whether in tort, contract, statutory or otherwise, demands, actions, proceedings and any awards arising from a breach by the Supplier of clause B1-7 of these Conditions.
- B7-2 This clause B7 shall survive termination or expiry of the Contract.

B8 Insurance

- B8-1 During the term of the Contract and for a period of 3 years thereafter, the Supplier shall maintain in force the following insurance policies with reputable insurance companies:
- B8-1-1 professional Indemnity insurance for not less than £2 million per claim;
 - B8-1-2 public liability insurance for not less than £5 million per claim (unlimited claims); and
 - B8-1-3 employer liability insurance for not less than £5 million per claim (unlimited claims); and
 - B8-1-4 The Supplier shall ensure that the Contracting Authority's interest is noted on each insurance policy, or that a generic interest clause has been included.

- B8-2 On request from the Contracting Authority's or UK SBS acting as an agent on behalf of the Contracting Authority, the Supplier shall provide the Contracting Authority or UK SBS with copies of the insurance policy certificates and details of the cover provided.
- B8-3 The Supplier shall ensure that any subcontractors also maintain adequate insurance having regard to the obligations under the Contract which they are contracted to fulfil.
- B8-4 The Supplier shall:
- B8-4-1 do nothing to invalidate any insurance policy or to prejudice the Contracting Authority's entitlement under it; and
 - B8-4-2 notify the Contracting Authority if any policy is (or will be) cancelled or its terms are (or will be) subject to any material change.
- B8-5 If the Supplier fails or is unable to maintain insurance in accordance with clause B8-1, the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority may, so far as it is able, purchase such alternative insurance cover as it deems to be reasonably necessary and shall be entitled to recover all reasonable costs and expenses it incurs in doing so from the Supplier.

B9 Liability

- B9-1 In this clause B9, a reference to the Contracting Authority or UK SBS's liability for something is a reference to any liability whatsoever which the Contracting Authority or UK SBS might have for it, its consequences, and any direct, indirect or consequential loss, damage, costs or expenses resulting from it or its consequences, whether the liability arises under the Contract, in tort or otherwise, and even if it results from the Contracting Authority's or UK SBS's negligence or from negligence for which the Contracting Authority's or UK SBS would otherwise be liable.
- B9-2 The Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority is not in breach of the Contract, and neither the Contracting Authority nor UK SBS has any liability for anything, to the extent that the apparent breach or liability is attributable to the Supplier's breach of the Contract.
- B9-3 Subject to clause B9-6, neither the Contracting Authority nor UK SBS acting as agent on behalf of the Contracting Authority shall have any liability for:
- B9-3-1 any indirect or consequential loss or damage;
 - B9-3-2 any loss of business, rent, profit or anticipated savings;
 - B9-3-3 any damage to goodwill or reputation;
 - B9-3-4 loss, theft, damage or destruction to any equipment, tools, machinery, vehicles or other equipment brought onto the Contracting Authority's premises by or on behalf of the Supplier; or
 - B9-3-5 Any loss, damage, costs or expenses suffered or incurred by any third party.
- B9-4 Subject to clause B9-5, the Contracting Authority and UK SBS's total liability shall be limited to the Charges.
- B9-5 The Supplier's total liability in connection with the Contract shall be limited to £1,000,000.
- Nothing in the Contract restricts either the Contracting Authority, UK SBS or the Supplier's liability for:

B9-5-1 death or personal injury resulting from its negligence; or

B9-5-2 its fraud (including fraudulent misrepresentation); or

B9-5-3 Breach of any obligations as to title implied by Section 12 of the Sale of Goods Act 1979 or Section 2 of the Supply of Goods and Services Act 1982.

B9-5-4 Nothing in this contract restricts Supplier liability in regard to breaches of Intellectual Property or GDPR.

SECTION C

C1 Confidential Information

C1-1 A party who receives Confidential Information shall keep in strict confidence (both during the term of the Contract and after its expiry or termination) all Confidential Information which is disclosed to it. That party shall only disclose such Confidential Information to those of its employees, agents or subcontractors who need to know the same for the purpose of discharging that party's obligations under the Contract, and shall ensure that such employees, agents or subcontractors shall keep all such information confidential in accordance with this clause C1. Neither party shall, without the prior written consent of the other party, disclose to any third party any Confidential Information, unless the information:

C1-1-1 was public knowledge or already known to that party at the time of disclosure; or

C1-1-2 subsequently becomes public knowledge other than by breach of the Contract; or

C1-1-3 subsequently comes lawfully into the possession of that party from a third party; or

C1-1-4 Is agreed by the parties not to be confidential or to be disclosable.

C1-2 To the extent necessary to implement the provisions of the Contract (but not further or otherwise), either party may disclose the Confidential Information to any relevant governmental or other authority or regulatory body, provided that before any such disclosure that party shall make those persons aware of its obligations of confidentiality under the Contract and shall use reasonable endeavours to obtain a binding undertaking as to confidentiality from all such persons.

C1-3 All documents and other records (in whatever form) containing Confidential Information supplied to or acquired by a party from the other party shall be returned promptly to the other party (or, at the election of the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority, destroyed) on expiry or termination of the Contract, and no copies shall be kept.

C2 Force Majeure

C2-1 If any event or circumstance that is beyond the reasonable control of the Supplier, and which by its nature could not have been foreseen by the Supplier or, if it could have been foreseen, was unavoidable, (provided that the Supplier shall use all reasonable endeavours to cure any such events or circumstances and resume performance under the Contract) prevent the Supplier from carrying out its obligations under the Contract for a continuous period of more than 10 Business Days, the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority may terminate this Contract immediately by giving written notice to the Supplier

C3 Corruption

C3-1 The Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority shall be entitled to terminate the Contract immediately and to recover from the Supplier the amount of any loss resulting from such termination if the Supplier or a Supplier's Associate:

C3-1-1 offers or agrees to give any person working for or engaged by the Contracting Authority, UK SBS or any Public Body any favour, gift or other consideration, which could act as an inducement or a reward for any act or failure to act connected to the Contract, or any other agreement between the Supplier and Contracting Authority, or UK SBS or any Public Body, including its award to the Supplier or a Supplier's Associate and any of the rights and obligations contained within it;

C3-1-2 has entered into the Contract if it has knowledge that, in connection with it, any money has been, or will be, paid to any person working for or engaged by the Contracting Authority, or UK SBS or any Public Body by or for the Supplier, or that an agreement has been reached to that effect, unless details of any such arrangement have been disclosed in writing to the Contracting Authority, or UK SBS before the Contract is entered into;

C3-1-3 breaches the provisions of the Prevention of Corruption Acts 1889 to 1916, or the Bribery Act 2010; or

C3-1-4 Gives any fee or reward the receipt of which is an offence under Section 117(2) of the Local Government Act 1972.

C3-2 For the purposes of clause C4-1, "loss" shall include, but shall not be limited to:

C3-2-1 The Contracting Authority's or UK SBS's costs in finding a replacement supplier;

C3-2-2 direct, indirect and consequential losses; and

C3-2-3 Any loss suffered by the Contracting Authority or UK SBS as a result of a delay in its receipt of the Services.

C4 Data Protection

C4-1 The Supplier shall comply at all times with all data protection legislation applicable in the UK.

C4-2 General Data Protection Regulations (GDPR)

The Supplier warrants that that it shall under this Contract:

- (i) Process only on documented instructions (Annex A) by the Contracting Authority, including regarding international transfers (unless, subject to certain restrictions, legally required to transfer to a third country or international organisation);
- (ii) provide all reasonable assistance to the Contracting Authority in the preparation of any Data Protection Impact Assessment (see <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0679&from=EN> of the GDPR). prior to commencing any processing. Such assistance may, at the discretion of the Contracting Authority, include;
 - a. systematic description of the envisaged processing operations and the purpose of the processing;
 - b. an assessment of the necessity and proportionality of the processing operations in relation to the Services;
 - 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.

The Contracting Authority may require further assurances during the Contract through a series of questions as to the Supplier GDPR compliance.

Notwithstanding any other remedies available to the Contracting Authority, the Supplier shall fully indemnify the Contracting Authority as a result of any such breach of the General Data Protection Regulations (GDPR), by the Supplier or any other party used by the Supplier in its performance of the Contract, that results in the Contracting Authority suffering fines, loss or damages.

For the avoidance of doubt this clause shall require the Supplier to ensure that this Contract from its Start Date shall be performed in such a way so as to be compliant with any existing Data Protection Act and will meet the requirements of the GDPR.

Annex A - Schedule of Processing, Personal Data and Data Subjects

The Supplier shall only process in accordance with the instructions as advised below and comply with any further written instructions with respect to processing by the Contracting Authority. Any such further written processing instructions required by the Contracting Authority shall be incorporated into this Schedule and shall be the subject of a formal amendment to this Contract.

- 1. The contact details of the Contracting Authority Data Protection Officer are:

Contracting Authority Data Protection Officer
 Department for Business, Energy and Industrial Strategy
 1 Victoria Street
 London
 SW1H 0ET

Email: dataprotection@beis.gov.uk

- 2. The contact details of the Suppliers Data Protection Officer (or if not applicable, details of the person responsible for data protection in the organisation) are: To be completed by the Contractor.
- 3. The Supplier shall comply with any further written instructions with respect to processing by the Contracting Authority.

Any such further instructions shall be incorporated into this Schedule

<i>Description</i>	<i>Details</i>
Subject matter of the processing	<p>The processing is needed in order to ensure that the Contractor can effectively deliver the contract entitled <i>Safety Benefits of Smart Domestic Appliances</i>.</p> <p>The processing of names and business contact details of staff of both the Authority and the Contractor will be necessary to deliver the Services exchanged during the course of the Contract, and to undertake Contract and performance management.</p>

	<p>The processing of names and contact details of stakeholders consulted during the period of the contract will be necessary to deliver the Services.</p> <p>The Contract itself will include the names and business contact details of staff of both the Authority and the Contractor involved in managing the Contract.</p>
<i>Duration of the processing</i>	The processing will take place for the duration of the contract.
<i>Nature and purposes of the processing</i>	<p>The nature of processing of the Authority and Contractor details will include the storage and use of names and business contact details of staff of both the Authority and the Contractor as necessary to deliver the Services and to undertake Contract and performance management. The Contract itself will include the names and business contact details of staff of both the Authority and the Contractor involved in managing the Contract.</p> <p>The nature of the processing of the details of stakeholders will include collection, recording, organisation, and consultation. Processing takes place for the purposes of research.</p>
<i>Type of Personal Data</i>	Names, business telephone numbers and email addresses, office location and position of staff of both the Authority and the Contractor as necessary to deliver the Services and to undertake Contract and performance management. The Contract itself will include the names and business contact details of staff of both the Authority and the Contractor involved in managing the Contract.
<i>Categories of Data Subject</i>	<p>Staff of the Authority and the Contractor, including where those employees are named within the Contract itself or involved within contract management.</p> <p>Stakeholders consulted during the period of the contract.</p>
<i>Plan for return and</i>	The Contractor will provide the Authority with a complete and uncorrupted version of the Personal Data in electronic form (or

<p><i>destruction of the data once the processing is complete UNLESS requirement under union or member state law to preserve that type of data</i></p>	<p>such other format as reasonably required by the Authority) and erase from any computers, storage devices and storage media that are to be retained by the Contractor after the expiry of the Contract. The Contractor will certify to the Authority that it has completed such deletion.</p> <p>Where Personal Data is contained within the Contract documentation, this will be retained in line with the Authority's privacy notice.</p>
---	---

GDPR Questionnaire

The Supplier agrees that during any term or extension it shall complete and return the attached questionnaire as advised below.

Note: The Contracting Authority also reserves the right to amend or increase these frequencies, as it deems necessary to secure assurance with regards to compliance.

The Contracting Authority requires such interim assurances to ensure that the Supplier is still compliant with the needs of the GDPR Act due to the implications of a breach.

The Supplier agrees that any financial burden associated with the completion and submission of this questionnaire at any time, shall be at the Suppliers cost to do so and will not be reimbursable.



GDPR Assurance Questionnaire May1

C6 Freedom of Information

C6-1 The Supplier acknowledges that the Contracting Authority and or UK SBS may be subject to the requirements of FOIA and EIR and shall assist and co-operate with the Contracting Authority and or UK SBS to enable them to comply with its obligations under FOIA and EIR.

C6-2 The Supplier shall and shall procure that its employees, agents, sub-contractors and any other representatives shall provide all necessary assistance as reasonably requested by the Contracting Authority or UK SBS to enable the Contracting Authority or UK SBS to respond to a Request for Information within the time for compliance set out in section 10 of FOIA or regulation 5 of EIR.

C6-3 The Contracting Authority and or UK SBS acting as an agent on behalf of the Contracting Authority shall be responsible for determining (in its absolute discretion) whether any Information:

C6-3-1 is exempt from disclosure in accordance with the provisions of FOIA or

EIR; C6-3-2 is to be disclosed in response to a Request for Information,

And in no event shall the Supplier respond directly to a Request for Information

unless expressly authorised to do so in writing by the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority.

C6-4 The Supplier acknowledges that the Contracting Authority and or UK SBS may be obliged under the FOIA or EIR to disclose Information, in some cases even where that Information is commercially sensitive:

C6-4-1 without consulting with the Supplier, or

C6-4-2 Following consultation with the Supplier and having taken its views into account.

C6-5 Where clause C6-4-2 applies the Contracting Authority and or UK SBS shall, in accordance with any recommendations issued under any code of practice issued under section 45 of FOIA, take reasonable steps, where appropriate, to give the Supplier advanced notice, or failing that, to draw the disclosure to the Supplier's attention as soon as practicable after any such disclosure.

C6-6 Where the Supplier organisation is subject to the requirements of the FOIA and EIR, C6-7 will supersede C6-2 – C6-5. Where the Supplier organisation is not subject to the requirements of the FOIA and EIR, C6-7 will not apply.

C6-7 The Contracting Authority and UK SBS acknowledge that the Supplier may be subject to the requirements of the FOIA and EIR and shall assist and co-operate with the Supplier to enable them to comply with its obligations under the FOIA and EIR.

C7 General

C7-1 Entire Agreement

C7-1-1 The Contract constitutes the entire agreement between the Contracting Authority and the Supplier in relation to the supply of the Services and the Contract supersedes any earlier agreements, arrangements and understandings relating to that subject matter.

C7-2 Liability

C7-2-1 Where the Contracting Authority is more than one person, the liability of each such person for their respective obligations and liabilities under the Contract shall be several and shall extend only to any loss or damage arising out of each such person's own breaches.

C7-2-2 Where the Contracting Authority is more than one person and more than one of such persons is liable for the same obligation or liability, liability for the total sum recoverable will be attributed to the relevant persons in proportion to the price payable by each of them under the Contract.

C7-3 Assignment and Subcontracting

C7-3-1 The Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority may at any time assign, transfer, charge, subcontract or deal in any other manner with any or all of its rights or obligations under the Contract.

C7-3-2 The Supplier may not assign, transfer, charge, subcontract or deal in any other manner with any or all of its rights or obligations under the Contract without prior written consent from the Contracting Authority's or UK SBS acting as an agent on behalf of the Contracting Authority.

C7-3-3 For above threshold procurements, The Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority may (without cost to or liability of the Contracting Authority or UK SBS) require the Supplier to

replace any subcontractor where in the reasonable opinion of the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority any mandatory or discretionary grounds for exclusion referred to in Regulation 57 of the Public Contracts Regulations 2015 apply to the subcontractors.

C7-4 Further Assurance

C7-4-1 The Supplier will promptly at the request of the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority do (or procure to be done) all such further acts and things, including the execution of all such other documents, as either the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority may from time to time require for the purpose of securing for the Contracting Authority the full benefit of the Contract, including ensuring that all title in the Supplies is transferred absolutely to the Contracting Authority.

C7-5 Publicity

C7-5-1 The Supplier shall not make any press announcements or publicise this Contract in any way without prior written consent from the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority.

C7-5-2 The Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority shall be entitled to publicise this Contract in accordance with any legal obligation upon Contracting Authority or UK SBS, including any examination of this Contract by the National Audit Office pursuant to the National Audit Act 1983 or otherwise.

C7-5-3 The Supplier shall not do anything or cause anything to be done, which may damage the reputation of the Contracting Authority or UK SBS or bring the Contracting Authority or UK SBS into disrepute.

C7-6 Notices

C7-6-1 Any notice or other communication given to a party under or in connection with the Contract shall be in writing, addressed to:

C7-6-1-a in the case of the Contracting Authority: **Department for Business, Energy & Industrial Strategy (BEIS) of 1 Victoria Street Westminster, London SW1H 0ET**; Email: Research@uksbs.co.uk (and a copy of such notice or communication shall be sent to: **UKSBS Research Procurement, Polaris House, North Star Avenue, Swindon, Wiltshire SN2 1FF**; Email: Research@uksbs.co.uk and the Chief Procurement Officer, Polaris House, North Star Avenue, Swindon, Wiltshire SN2 1FF;

C7-6-1-b in the case of the Supplier: the address, fax number and email address set out in the Order, or any other address, fax number or email address which that party may have specified to the other party in writing in accordance with this clause C7-6, and shall be delivered personally, or sent by pre-paid first-class post, recorded delivery, commercial courier, fax or e-mail.

C7-6-2 A notice or other communication shall be deemed to have been received: if delivered personally, when left at the address referred to in clause C7-6-1; if sent by pre-paid first-class post or recorded delivery, at 9.00 am on the second Working Day after posting; if delivered by commercial courier, on the date and at the time that the courier's delivery receipt is signed; or, if sent by fax or e-mail between the hours of 9.00am and 5.00pm on a

Working Day, upon successful transmission (provided that the sender holds written confirmation automatically produced by the sender's fax machine of error free and complete transmission of that fax to the other party's fax number), or if sent by fax or e-mail outside the hours of 9.00am and 5.00pm on a Working Day, at 9.00am on the next Working Day following successful transmission (provided that the sender holds written confirmation automatically produced by the sender's fax machine of error free and complete transmission of that fax to the other party's fax number).

C7-6-3 This clause C7-6-3 shall only apply where UK SBS is not the Contracting Authority. In such cases, UK SBS may give or receive any notice under the Contract on behalf of the Contracting Authority and any notice given or received by UK SBS will be deemed to have been given or received by the Contracting Authority.

C7-6-4 Except for clause C7-6-5, The provisions of this clause C7-6 shall not apply to the service of any proceedings or other documents in any legal action.

C7-6-5 [NOT USED]

C7-7 **Severance**

C7-7-1 If any court or competent authority finds that any provision of the Contract (or part of any provision) is invalid, illegal or unenforceable, that provision or part-provision shall, to the extent required, be deemed to be deleted, and the validity and enforceability of the other provisions of the Contract shall not be affected.

C7-7-2 If any invalid, unenforceable or illegal provision of the Contract would be valid, enforceable and legal if some part of it were deleted, the provision shall apply with the minimum modification necessary to make it legal, valid and enforceable.

C7-8 **Waiver.** A waiver of any right or remedy under the Contract is only effective if given in writing and shall not be deemed a waiver of any subsequent breach or default. No failure or delay by a party to exercise any right or remedy provided under the Contract or by law shall constitute a waiver of that or any other right or remedy, nor shall it preclude or restrict the further exercise of that or any other right or remedy. No single or partial exercise of such right or remedy shall preclude or restrict the further exercise of that or any other right or remedy.

C7-9 **No Partnership, Employment or Agency.** Nothing in the Contract creates any partnership or joint venture, nor any relationship of employment, between the Supplier and either the Contracting Authority or UK SBS. Nothing in the Contract creates any agency between the Supplier and either the Contracting Authority or UK SBS.

C7-10 **Third Party Rights.** A person who is not a party to this Contract shall not have any rights under or in connection with it, except that UK SBS and any member of the UK SBS, Associated Bodies or Authorised Entities that derives benefit under this Contract may directly enforce or rely on any terms of this Contract.

C7-11 **Variation.** Any variation to the Contract, including any changes to the Services, these Conditions, the Special Conditions or the Order, including the introduction of any additional terms and conditions, shall only be binding when agreed in writing by the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority and the Supplier.

C7-12 Governing Law and Jurisdiction.

C7-12-1 Subject to clause C7-12-2, the Contract, and any dispute or claim arising out of or in connection with it or its subject matter or formation (including non-contractual disputes or claims), shall be governed by, and construed in accordance with, English law, and the parties irrevocably submit to the exclusive jurisdiction of the courts of England and Wales.

C7-12-2 The Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority shall be free to enforce its intellectual property rights in any jurisdiction.

C7-13 Modern Slavery Act 2015

C7-13-1 The Supplier shall not use, or allow its Subcontractors to use, forced, bonded or involuntary prison labour;

C7-13-2 shall not require any Contract or staff or Subcontractor staff to lodge deposits or identify papers with the Employer or deny Supplier staff freedom to leave their employer after reasonable notice;

C7-13-3 warrants and represents that it has not been convicted of any slavery or human trafficking offences anywhere around the world.

C7-13-4 warrants that to the best of its knowledge it is not currently under investigation, inquiry or enforcement proceedings in relation to any allegation of slavery or human trafficking offenses anywhere around the world.

C7-13-5 shall make reasonable enquiries to ensure that its officers, employees and Subcontractors have not been convicted of slavery or human trafficking offences anywhere around the world.

C7-13-6 shall have and maintain throughout the term of each Contract its own policies and procedures to ensure its compliance with the Modern Slavery Act 2015 and shall include in its contracts with its Subcontractors anti-slavery and human trafficking provisions;

C7-13-7 shall implement due diligence procedures to ensure that there is no slavery or human trafficking in any part of its supply chain performing obligations under a Contract;

C7-13-8 shall not use, or allow its employees or Subcontractors to use, physical abuse or discipline, the threat of physical abuse, sexual or other harassment and verbal abuse or other forms of intimidation of its employees or Subcontractors;

C7-13-9 shall not use, or allow its Subcontractors to use, child or slave labour;

C7-13-10 shall report the discovery or suspicion of any slavery or trafficking by it or its Subcontractors to the Contracting Authority without delay during the performance of this Contract to utilise the following help and advice service, so as to ensure that it suitably discharges its statutory obligations.

The "Modern Slavery Helpline" refers to the point of contact for reporting suspicion, seeking help or advice and information on the subject of modern slavery available online at <https://www.modernslaveryhelpline.org/report> or by telephone on 08000 121 700

C7-13-11 During the Term or any extension of the Contract, the Contracting Authority is committed to ensuring that its supply chain complies with the above Act.

C7-13-12 The Supplier shall provide a slavery and trafficking report covering the following but not limited to areas as relevant and proportionate to the Contract evidencing the actions taken, relevant to the Supplier and their supply chain associated with the Contract.

C7-13-12-a Impact assessments undertaken

C7-13-12-b Steps taken to address risk/actual instances of modern slavery and how actions have been prioritised

C7-13-12-c Evidence of stakeholder engagement

C7-13-12-d Evidence of ongoing awareness training

C7-13-12-e Business-level grievance mechanisms in place to address modern slavery

C7-13-12-f Actions taken to embed respect for human rights and zero tolerance of modern slavery throughout the organisation

C7-13-13 The Contracting Authority or UK SBS when acting as an agent on behalf of the Contracting Authority reserves the sole right to audit any and all slavery and trafficking reports submitted by the Supplier to an extent as deemed necessary and the Supplier shall unreservedly assist the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority in doing so.

Note: The Contracting Authority also reserves the right to amend or increase the frequency of reporting, as it deems necessary to secure assurance in order to comply with the Modern Slavery Act.

The Contracting Authority requires such interim assurances to ensure that the Supplier is compliant and is monitoring its supply chain, so as to meet the requirements of the Modern Slavery Act.

The Supplier agrees that any financial burden associated with the completion and submission of this report and associated assistance at any time, shall be at the suppliers cost to do so and will not be reimbursable.

C7-14 Changes in Costs Resulting from Changes to Government Legislation, Levies or Statutory Payments

The Contracting Authority will reimburse during any term or extension (or, where such costs, awards or damages arise following termination/expiry) of this Agreement, any increases in the Supplier's cost of providing the Services by reason of any modification or alteration to the Government legislation duties or levies or other statutory payments (including but not limited to National Insurance and/or VAT and/or introduction of or amendment to working time minimum wages). Subject always to open book access to the Supplier's records and always after a period of due diligence carried out by the Contracting Authority, relevant and proportionate to the value concerned.

C7-15 Taxation Obligations of the Supplier

C7-15-1 The relationship between the Contracting Authority, UK SBS and the Supplier will be that of "independent contractor" which means that the Supplier is not an employee, worker, agent or partner of the Contracting Authority or UK SBS and the Supplier will not give the impression that they are.

(1.) The Supplier in respect of consideration shall at all times comply with the income tax Earnings and Pensions Act 2003 (ITEPA) and all other statutes and regulations relating to income tax in respect of that consideration.

(2.) Where Supplier is liable to National Insurance Contributions (NICs) in respect of consideration received under this contract, it shall at all times comply with the Social Security Contributions and Benefits Act 1992 (SSCBA) and all other statutes and regulations relating to NICs in respect of that consideration.

(3.) The Contracting Authority may, at any time during the term, completion extension or post termination of this contract, request (Supplier) to provide information which demonstrates how Supplier complies with its obligations under tax and National Insurance Clauses (1) and (2) above or why those clauses do not apply to it.

C7-15-2 As this is not an employment Contract the Supplier will be fully responsible for all their own tax including any national insurance contributions arising from carrying out the Services.

C7-15-3 A request under Clause (3) above may specify the information which Supplier shall provide and the period within which that information must be provided.

C7-15-4 In the case of a request mentioned in Clause (3) above, the provision of inadequate information or a failure to provide the information within the requested period, during any term or extension, may result in the Contracting Authority terminating the contract.

C7-15-5 Any obligation by Supplier to comply with Clause (1) and (2) shall survive any extension, completion or termination and Supplier obligations to Indemnify the Contracting Authority shall survive without limitation and until such time as any of these obligations are complied with.

C7-15-6 The Contracting Authority may supply any information, including which it receives under clause (3) to the commissioners of Her Majesty's Revenue and Customs for the purpose of the collection and management of revenue for which they are responsible.

C7-15-7 If the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority has to pay any such tax under clauses (1) and (2) then the Supplier will pay back to the Contracting Authority or UK SBS in full, any money that the Contracting Authority or UK SBS has to pay, and they will also pay back the Contracting Authority or UK SBS for any fine or other punishment imposed on the Contracting Authority or UK SBS because the tax or national insurance was not paid by the Supplier.

C7-16 Cyber Essentials Questionnaire

The Supplier agrees that during any term or extension it shall complete and return the attached questionnaire as advised below, within 14 days from notice and shall send this information as directed by the Contracting Authority or UK SBS acting as an agent on behalf of the Contracting Authority. The Contracting Authority and UK SBS acting as an agent on behalf of the Contracting Authority is required to provide such assurances to comply with Government advice and guidance.

Note: The Contracting Authority also reserves the right to amend or increase the frequency of the questionnaire submission due dates, as it deems necessary.
The Contracting Authority requires such interim assurances to ensure that the Supplier is

still compliant with the security needs of this Contract.

The Supplier agrees that any financial burden associated with the completion and submission of this questionnaire and associated assistance at any time, shall be at the suppliers cost to do so and will not be reimbursable.



Copy os Statement
of Assurance Questio

Schedule 1 Special Conditions

As funding has not yet been approved beyond March 2021 for this project, the project is split into two distinct phases. Phase 1 will cover weeks 1-3 deliverables up to 31 March 2021 for which funding has been approved. Phase 2 will cover deliverables from 1 April 2021 to the conclusion of the contract. Phase 2 can only commence once funding has been approved. *This is expected to be known in February/March 2021.*

There will be a break clause in the contract on Wednesday 31st March 2021 for BEIS to review whether phase 2 has budgetary approval.

If the break clause is initiated, we would expect the contract to draw to a close by the end of March 2021 and if the break clause is not initiated, by Monday 2nd August 2021.

For and on behalf of **London Economics Limited (The Supplier)**

Signed

Name

Position

Date



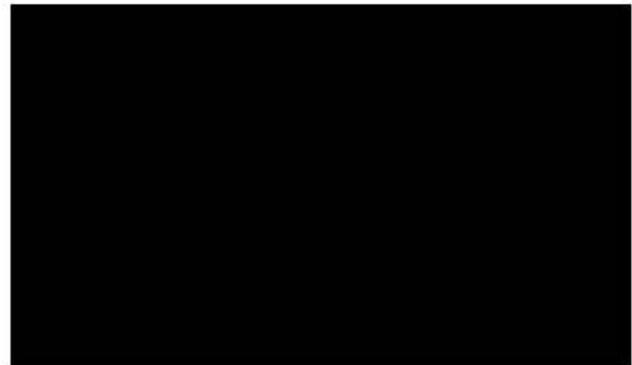
For and on behalf of **The Department for Business, Energy and Industrial Strategy (The Contracting Authority)**

Signed

Name

Position

Date



THIS IS THE LAST PAGE OF THESE TERMS & CONDITIONS

Schedule 2 Pro forma purchase order form

The format of the Proforma Purchase Order will be as follows. Please note that the Purchase Order form will be submitted directly to your chosen email address on completion of the receipt of the signed contract and will contain the confirmed value of goods and services as well as the Purchase Order number that must be used for invoicing purposes.

Purchase Order #0

(Contracting Authority Logo)

<p>Supplier:</p> <p>Tel:</p> <p>Fax:</p> <p>Ship to: Contracting authority ship to address</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: left;">Order</th> </tr> <tr> <td style="width: 70%;">Order Date</td> <td></td> </tr> <tr> <td>Revision</td> <td style="text-align: center;">0</td> </tr> <tr> <td>Revision Date</td> <td></td> </tr> <tr> <td>Payment Terms</td> <td>As per terms and conditions</td> </tr> </table> <p>PLEASE QUOTE THE PURCHASE ORDER NUMBER ON ALL CORRESPONDENCE. INVOICES NOT QUOTING THE PO NUMBER WILL BE RETURNED UNPAID</p> <p>For all purchase order queries, please contact P2PAdmin@uksbs.co.uk For all invoicing queries, please contact finance@uksbs.co.uk</p> <p>Invoice to: Contracting Authority Invoice Address</p>	Order		Order Date		Revision	0	Revision Date		Payment Terms	As per terms and conditions
Order											
Order Date											
Revision	0										
Revision Date											
Payment Terms	As per terms and conditions										

Line	Part Number/Description	Delivery Date	Quantity	UOM	Unit Price (GBP)	Tax	Net Amount (GBP)
1							
Total							
Grand Total							

Whenever a UK SBS Contract number is cited within the narrative description of the Purchase Order that Purchase Order is subject to the Terms and Conditions relating to that Contract, otherwise, the Purchase Order is subject to the Terms and Conditions incorporated herein by this reference. For a copy of the Terms and Conditions please see <http://www.uksbs.co.uk/services/procure/Documents/SSCPOterms.pdf>

Commercial In Confidence

	VAT Registration Number GB 618 367 325 (Contracting Authority) , Polaris House, North Star Avenue Swindon, United Kingdom SN2 1EU
---	---

Schedule 3 The Service**D1 SCOPE OF SERVICES TO BE PROVIDED**

D1-1 To carry out CR21005 – Safety Benefits of Domestic Smart Appliances as outlined in Annex A – Specification and Annex B – Bid Response.

D2 COMMENCEMENT AND DURATION

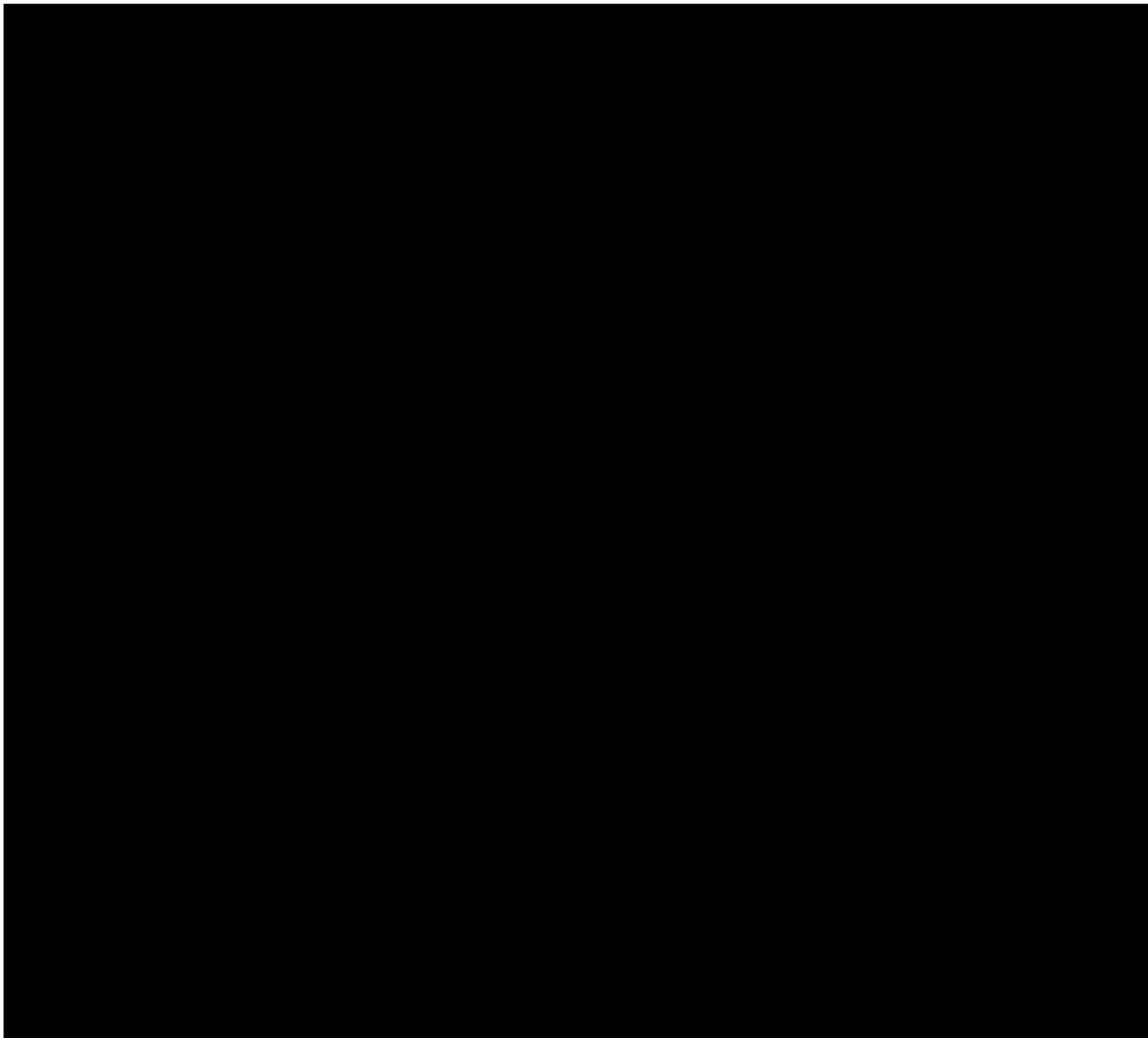
D2-1 This Contract shall commence on Wednesday, 3rd March 2021 and subject to any provisions for earlier termination contained in the Standard Terms and Schedule 1 Special Conditions, shall end no later than Monday, 2nd August 2021.

D3 MANAGEMENT AND COMMUNICATIONS


D3-3 UK Shared Business Services appoints: Kailash Dholliwar Category Manager, Research Team, Polaris House, North Star Avenue, Swindon, Wiltshire SN2 1FF; Email: Research@uksbs.co.uk.

D4 – Contract Price

D4-1 Total Contract price shall not exceed £57,860.00 excluding VAT in accordance with the Contract price and breakdown submitted for this contract detailed below:



D4-2 Invoice schedule will be confirmed within inception meeting.

D4-3 All invoices should be sent to finance@services.uksbs.co.uk or Department for Business, energy and Industrial Strategy, 1 Victoria Street, London, SW1H 0ET. A copy of the invoice should also be sent to the Project Manager, [REDACTED]

Annex A – Specification

1. Background

The Office for Product Safety and Standards (“The Office”) was created in January 2018 by the Department for Business, Energy and Industrial Strategy (BEIS), and takes forward the work of the previous Regulatory Delivery directorate. Responsibilities of the Office include:

- Giving detailed advice on the interpretation of safety related regulations and sits on many standard making committees.
- Responding to incidents where the safety of a consumer product is called into question.
- Offering policy advice to HMG on product safety issues.
- Enforcement of a wide range of other product standards and regulations, including WEEE, RoHS, Ivory and Conflict Mineral regulations.
- Support of businesses through an expanded “Primary Authority” scheme to act as a single point of information for a wide variety of regulations impacting business.
- The work of the former national Measurement Organisation is also within the Office, which brings a world class test and measurement capability.

This project is being recruited as part of the BEIS Office for Product Safety and Standards Strategic Research Programme (SRP), which was launched in March 2018. This programme provides high quality strategic science-based research to strengthen the evidence base for Safety and Standards policy development, delivery and enforcement, giving business the confidence to innovate and protecting consumers from unsafe products. The wide range of evidence-based research supported by the SRP helps to address critical questions relating to current product safety, and/or issues that might arise due to future market developments.

Faulty domestic appliances are responsible for an estimated 60 household fires a week across the UK (Home Office data). Large domestic appliances (LDAs), which include cookers, washing machines, tumble driers, dish washers and fridge/freezers, account for two thirds of these fires.

These appliances are becoming increasingly smarter as manufacturers incorporate new technologies such as internet-connectivity and Artificial Intelligence (AI). In 2018, almost 15% of large domestic appliance sales were recorded as having a smart connection, with this number expected to grow.

The current consumer driver for smart appliances is better control over the appliance. This might include new features or functionality or enable operation of the appliance to be time-shifted to take advantage of lower-priced electricity. A reduction in the price premium of smart appliances, and the introduction of new internet-enabled services, could result in smart features becoming standard on even the lowest cost models. Therefore, the emerging smart appliance market presents a good opportunity to improve the safety of domestic appliances.

There are a number of ways that smart appliances could enhance safety. Technology such as internet connectivity provides manufacturers with new ways to communicate with consumers. This could allow manufacturers to improve recalls, communicate safety alerts or provide continuous maintenance such as software updates.

Further to this, the cost and performance of sensors and condition monitoring equipment for monitoring critical parameters such as current, noise, temperature and vibration means that they are being used in an increasing variety of applications. If this technology was fitted to domestic appliances, then the manufacturer could predict certain appliance failures such as a worn bearing or damaged drive belt. A proactive maintenance service could then be offered in which problems are fixed before the product becomes unsafe.

Additionally, collecting data on how a product is used, problems that arise, service needs

etc, could enable domestic appliance manufacturers to improve product design. Monitoring and operating remotely also has the potential to assist those with limited mobility and aid those who care for vulnerable consumers.

It is expected that this research will consider the following themes in particular:

- More advanced condition monitoring alerting the user to developing safety issues before they become a problem
- In service software updates to help overcome safety risks.
- Improved product recalls by alerting users directly or disabling devices/functions.
- More effective data collection to enable meta-analysis of product lifetime performance.
- Other indirect benefits of smart appliances offered through advanced components

As funding has not yet been approved beyond March 2021 for this project, the project is split into two distinct phases. Phase 1 will cover weeks 1-3 deliverables up to 31 March 2021 for which funding has been approved. Phase 2 will cover deliverables from 1 April 2021 to the conclusion of the contract. Phase 2 can only commence once funding has been approved. This is expected to be known in February/March 2021.

There will be a break clause in the contract at the end of Phase 1 for the contracting authority to review the deliverables for BEIS to decide on the continuation of contract. For clarity, if the break clause is initiated the contract will expire on Wednesday 31st March 2021.

2. Aims and Objectives of the Project

This research project will examine current and anticipated smart appliance technology and the benefits this could bring to consumer safety.

The aim of the work is to identify opportunities to enhance the safety of domestic appliances using smart technology and review the potential benefits and challenges to industry adoption.

The objective of the work is to:

- Review the key themes outlined in the background section. This should include an analysis of common safety issues with current domestic appliances and to what extent sensors and other smart technology could be used to mitigate these.
- Review how the current and anticipated future market is using 'smart' technology to improve the safety of LDAs. Including a review of relevant technologies used in other sectors and how this could be incorporated into LDAs.
- Assess the barriers and drivers on the LDA industry for implementing the advantages of smart products for consumer safety.
- Consider how standards makers, regulators and manufacturers could respond to opportunities in smart appliance development and enhance the safety of LDAs.

In particular, the following questions should be addressed:

- What are the common safety issues/faults in domestic appliances that could be monitored and flagged for maintenance before the fault develops into a potential safety hazard?
- To what extent can condition monitoring be implemented by manufacturers to identify safety issues (overheating, increase current draw, gauge pressure etc.) and how effective would this be at mitigating the risk of unsafe product failure?
- Will smart capability be implemented by manufacturers to encourage consumers to initiate product maintenance, either by themselves or via a technician (for example, product service or filter clean)?
- What is the potential to collect data such as diagnostics from sensors and service history and how could this be used enhance safety (for example, to inform software updates, improve future designs or identify the cause of a fault)?
- Product manufacturers can communicate with consumers more quickly and effectively due to the connected nature of the devices. Could this lead to improved

product recalls and relaying of safety information such as updates on safety instructions and maintenance requirements?

- Could smart capability enable more effective identification of products that were the cause of incidents?
- What is the potential of smart products to enhance safety through connectivity (for example, through interfacing between LDAs, smoke alarms, smart speakers and other connected devices)?
- What are the possible indirect benefits of smart technology? For example, new opportunities to incorporate synchronous motors and remove the need for motor start/run capacitors, which are a common cause of fires.
- To what extent are the above already being implemented or considered in the market?
- What are the barriers and drivers for the LDA industry to implement the opportunities explored above?
- How could standards makers, regulators and manufacturers respond to these opportunities to enhance the safety of LDAs?

3. Suggested Methodology

We are open to the methodologies put forward by bidders, though it is suggested that the contractor will undertake the following activities:

1. Attend a formal Kick Off meeting at BEIS London office (or remotely if situation doesn't allow in person). This will include a check that the contractor understands the context and objectives of the work, the project working arrangements, and resolution of any queries regarding the detailed programme of work.
2. Following the Kick Off meeting, the contractor will write and submit a short Inception report to confirm the agreed final programme of work, a list of suggested stakeholders and project timeline.
3. Undertake preliminary desk research to and identify further key stakeholders and make contact with stakeholders. This will inform topics for further investigation and discussion. A topic guide along with a list of identified stakeholders, why they were chosen and methodology for conducting the interviews should be provided to the OPSS Project Management Officer (PMO) for sign off.
4. Carry out desk based analysis and 1:1 phone consultations with key stakeholders and experts to draft a final Report 'Safety Benefits of Smart Domestic Appliances' for review and approval by OPSS. At this point the work could be scope could be concentrated on the key areas, if too many areas have been identified. This stage will include a setting of the scene, a discussion of the research questions outlined above and options for further action. Indicatively, this report should be 40 – 60 pages in length.
 - a. The desk-based analysis should consist of a literature survey followed by a structured assessment and analysis of the documents identified. This should reference relevant academic publications, studies, projects/initiatives and standards where applicable. This should also include relevant examples of where technology is, could or has been used to improve safety in LDAs and other applications. Common trends and themes should be identified where possible.
 - b. The interviews with key stakeholders and experts (Indicatively 25-30) should

comprise of manufacturers, smart appliance architects, trade bodies, first responders, product safety experts and condition monitoring experts. These interviews will provide complimentary information to the desk-based research but will also give further information on the ability and appetite of the LDA industry to implement safety improvements made possible by smart capabilities and any affects this will have on industry. Interviews should be structured and analysed systematically.

5. Based on the findings from (4), conduct a simple market analysis of sensor/integration/comms costs and cost/benefit of implementing additional hardware and software required for the product safety benefits highlighted. Incorporate this into the draft report.
6. Additionally, provide an evaluation of the potential uplift in returns for product recalls which smart products could provide based on findings from (4) and incorporate into the draft report.
7. Hold a Stakeholder meeting to verify assumptions and gain additional insights to incorporate into the study.
8. Update the draft report, to incorporate the outcomes of the stakeholder meeting and OPSS comments.
9. Submit documents as a Final version to the satisfaction of the OPSS PMO.
10. Create and deliver a presentation about the project to BEIS staff at the London office (or remotely if not possible in person).

Case study examples based on actual or hypothetical examples should be used where useful to illustrate points made.

Any opinions or information related to consumer behaviour/insight should be noted; for potential use in future projects.

NB The scope of this work does not include risks associated with cyber security, other than those that directly impact consumer safety.

OPSS will supply to the successful bidder a list of core stakeholders that it is suggested are consulted as part of this work.

If wished, the Office can send a note of introduction to all stakeholders to explain the nature of the project and the contractor's role in it.

Workshop: under normal circumstances the Office can host at no charge a workshop at its 1 Victoria St, London office, and can send out invitations on behalf of the contractor. Depending on the guidance at the time this may need to be held virtually. Otherwise, to ensure a good choice of dates and rooms, it is suggested that the room is reserved at least 8 weeks in advance.

Project reporting: Generally a bi-monthly phone call, however this can be discussed at the Kick Off meeting.

4. Deliverables

Phase 1 (for which funding has been approved) – BEIS can guarantee funding of up to £13k for this phase

- Kick Off meeting at BEIS London office (or remotely if not possible in person). (week

1)

- Short Inception report, to define the result of the Kick-Off meeting, agree scope and approach. (week 1 or 2)

Phase 2 (for which funding has not yet been approved)

- Draft report; informed by the preliminary interviews, desk-based research, main stakeholder interviews and analysis/evaluations of the information. (week 16)
- Stakeholder meeting to verify assumptions and gain additional insights to incorporate into the study. This will also act to ensure the project quality. (week 17)
- Final version report. (week 20)
- Background information collected during the project which evidences the conclusions in the final report, such as data and models etc.
- Deliver a presentation about the project to BEIS staff at the London office. (week 21)
- Any opinions or information related to consumer behaviour/insight should be noted; for potential use in future projects.

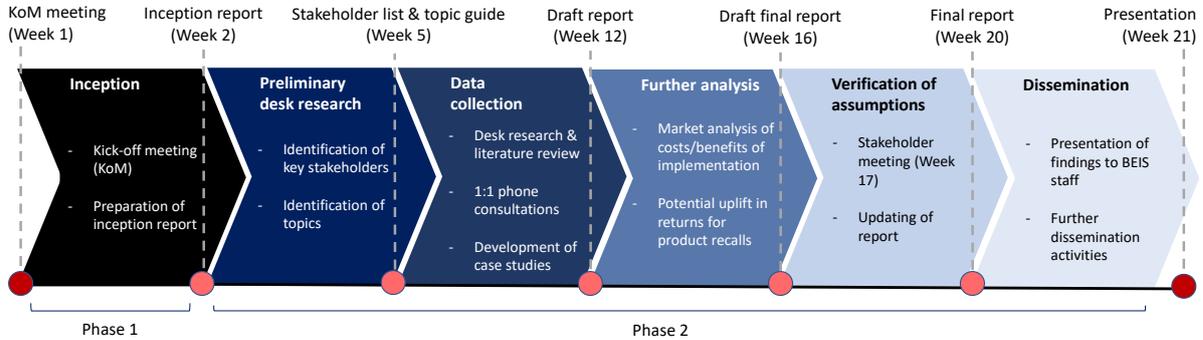
Terms and Conditions

Bidders are to note that any requested modifications to the Contracting Authority Terms and Conditions on the grounds of statutory and legal matters only, shall be raised as a formal clarification during the permitted clarification period.

Annex B - Supplier Response

PROJ1.1: Methodology / Approach

London Economics (LE) is pleased to present this proposal for research on the safety benefits of domestic smart appliances. The research is of considerable interest to LE and builds on our research experience in advanced and innovative technologies (AI, IoT, etc.), as well as our long-standing interest and experience in research on consumer issues as well as our current studies on product safety for the EC and for BEIS (see PROJ1.3). The figure below provides an overview of the different strands of the approach in relation to key milestones/deliverables.



Phase 1: Kick-off meeting and inception report

Following the signing of the contract, we will prepare for and coordinate the kick-off meeting with OPSS as soon as possible. The aim of the kick-off meeting is to ensure a shared understanding regarding the context and objectives of the work, agree on scope/included technologies/appliances, review and fine-tune the proposed methodology based on an exchange with OPSS, agree the project management relationships (including timetable and dates for meetings and deliverables), and resolve any queries prior to commencing the work.

Output: Following the meeting we will produce a short **inception report** which will confirm the agreed final work programme/timeline and provide an initial list of suggested stakeholders.

List of initial stakeholders & composition of sample

In order to facilitate discussion at the inception meeting project start-up, we already provide an initial list of stakeholders we envisage to consult and our proposed interview split. This list will be refined based on discussions with the OPSS at the kick-off meeting. The refined list will form part of the inception report and will be further refined in further discussions with the OPSS and through desk research (Stage 1 of Phase 2).

Type of stakeholder	Examples of stakeholders	Interviews
Appliance manufacturers / Smart appliance architect	Bosch, Electrolux, Haier, LG Electronics, Samsung Electronics, Whirlpool	5-10
First responders	Chief Fire Officers Association (CFOA), Fire Brigades Union (FBU)	2-3
Product safety experts	Electrical Safety First, Royal Society for the Prevention of Accidents (RoSPA), Fire Protection Association (FPA), Consumer Product Safety Advice Limited, SGS UK,	5-10
Condition monitoring experts	Faraday Predictive, Aveva, Schneider Electric, Wireless Sensors, Tempcon	
Trade bodies	The Association of Manufacturers of Domestic Appliance (AMDEA), Domestic Appliance Service Organisation (DASA), Whitegood Trade Association (WTA), British Retail Consortium (BRC),	4-6
Consumer organisations	Which?, Citizens Advice	1-2
Standards / regulatory bodies	British Standards Institution (BSI), Chartered Trading Standards Institute (CTSI), Information Commissioners Office (ICO), Office for AI, UK Accreditation Service, Association of Chief Trading Standards Officers	3-4

We understand that the OPSS wishes to consult manufacturers, smart appliance architects, trade bodies, first responders, product safety experts and condition monitoring experts. In addition to these stakeholders, we propose to also include consumer organisations, standards bodies / regulators, and consumer organisations in the sampling frame for interviews. The final

list of organisations to be invited for interview will be agreed with OPSS prior to commencement of the fieldwork. We envisage to interview around 25-30 organisations; a preliminary split of interviews is provided in the table on the previous page.

Phase 2: Research and analysis

Once confirmation of approval of funding has been secured (we understand this is expected in February/March 2021), phase 2, the main data collection and analysis stage, of the project can commence. Phase 2 will be split into five key stages, detailed below.

Stage 1: Preliminary desk research & identification of further key stakeholders

The aim of the preliminary desk research stage is to **identify key stakeholders to interview** and **inform topics for discussion**. The basis for identification of stakeholders to interview will be the initial list of suggested stakeholders (provided in the inception report), which will be further refined in this stage. In addition, this step will **explore the potential topics to focus in the interviews**. The figure below presents an initial list of potential topics to explore.

Common safety issues & faults	<ul style="list-style-type: none"> What are the common safety issues/faults in domestic appliances that could be monitored and flagged for maintenance before the fault develops into a potential safety hazard?
Potential for data collection & communication with users	<ul style="list-style-type: none"> What is the potential to collect data such as diagnostics from sensors and service history; how could this be used to enhance safety (eg., to inform software updates, improve future designs or identify the cause of a fault)? Could smart capability enable more effective identification of products that were the cause of incidents?
Potential for product safety improvements / preventive maintenance	<ul style="list-style-type: none"> To what extent can condition monitoring be implemented by manufacturers to identify safety issues (overheating, increase current draw, gauge pressure etc.) and how effective would this be at mitigating the risk of unsafe product failure? What is the potential of smart products to enhance safety through connectivity (for example, through interfacing between LDAs, smoke alarms, smart speakers and other connected devices)?
Potential impacts on product recalls	<ul style="list-style-type: none"> Product manufacturers can communicate with consumers more quickly and effectively due to the connected nature of the devices. Could this lead to improved product recalls and relaying of safety information such as updates on safety instructions and maintenance requirements?
Potential indirect benefits	<ul style="list-style-type: none"> What are the possible indirect benefits of smart technology? For example, new opportunities to incorporate synchronous motors and remove the need for motor start/run capacitors, which are a common cause of fires.
Implementation of smart capabilities by manufacturers	<ul style="list-style-type: none"> Will smart capability be implemented by manufacturers to encourage consumers to initiate product maintenance, either by themselves or via a technician (for example, product service or filter clean)? To what extent are the above already being implemented or considered in the market?
Barriers & drivers	<ul style="list-style-type: none"> What are the barriers and drivers for the LDA industry to implement the opportunities?
Opportunities for policy making and regulation	<ul style="list-style-type: none"> How could standards makers, regulators and manufacturers respond to these opportunities to enhance the safety of LDAs?

We anticipate that the preliminary desk research will yield further topics of interest. The list of people to be invited for interview and the topics to be covered will be agreed with OPSS prior to the start of the fieldwork.

Challenge: Identifying and reaching the appropriate individuals within organisations

A key challenge in conducting interviews is identifying and reaching the appropriate individuals within organisations to interview. This is necessary in order to maximise participation in the interview process and to maximise the value derived from the interviews. In our experience engagement from organisations where contacts are known is much higher than those where no contacts are available. Therefore, where contacts are available through the OPSS team, other BEIS teams, or our own contacts, these will form the first point of contact. Where contacts exist at BEIS, we would appreciate an introduction in order to facilitate participation. If the identified person is not the most appropriate to interview, we will ask them to connect us to the most appropriate individual within their organisation.

Where no contacts are known, we will seek to identify the appropriate individuals by consulting company websites in order to identify which individuals hold positions (e.g. Chief Innovation Officer, product safety expert, head of manufacturing, etc.) that make them appropriate people to consult. Our approach to reaching these individuals will involve up to two stages. First, we will look for contact details for these individuals through web searches and by looking on company websites. Second, in cases where the first stage does not yield contact details, we will use the subscription service **RocketReach**, which provides access to a searchable database of contact

details for millions of professionals, to gather contact details. We have used RocketReach for this purpose in the recent past and found it to be a useful tool.

Output: The output will be a **list of identified stakeholders**, alongside a discussion of why they were chosen, and a methodology for conducting the interviews. A **topic guide** of areas/questions to be explored in detail in the interviews will also be drafted and shared with OPSS prior to holding interviews. The topic guide gives the OPSS the opportunity to provide comments and feedback and ensure the information collected will be valuable to the OPSS.

Stage 2: Data collection

In the data collection stage, we will undertake a **review of existing literature** and studies relating to smart appliances, and - following the sign-off of the interview guide and stakeholders to interview - carry out **1:1 phone consultations** with key stakeholders and experts in the field of smart appliances and product safety. The objectives of the data collection stage will be to identify existing (secondary) and new (primary) evidence to answer the key research topics defined in Stage 1. A key objective of the data collection stage will also be to collect evidence to inform the further analysis in Stage 3 (i.e. evidence to substantiate assumptions to estimate the costs and benefits, and the potential uplift in product recalls).

Desk based research & literature review

First, we will undertake a **literature survey** to establish the most relevant existing sources. The literature survey will take the form of a **rapid evidence assessment** (REA). A REA is a systematic approach to creating a quick overview of existing research on a topic and a synthesis of the evidence provided by these studies to answer the key research questions of the study. The REA is characterised by a narrow **focus on the most relevant sources**, a preference for survey/meta studies where such studies are available (as they provide an overview of the range of existing literature as well as citations to relevant primary sources), and a focus on useful results, rather than methodological intricacies. Following the literature survey, a more detailed **structured assessment and analysis** of the most relevant documents identified will be undertaken where this is expected to add value to the research.

The review will consider relevant literature/evidence from a range of sources incl. **government and public body reports** (e.g. the OECD's 2018 reports on consumer product safety in the Internet of Things (IoT) and on consumer policy and the smart home; the EC's 2019 report on Smart home and appliances: State of the art, the EC's 2020 report on the safety and liability implications of AI, the IoT and robotics, etc.), **academic literature** (e.g. Wilson et. al. (2017): Benefits and risks of smart home technologies, Milon (2020): Application of Smart Appliance Using Internet of Things, Sovacool and Rio (2020): Smart home technologies in Europe: A critical review of concepts, benefits, risks and policies), **consultancy reports/insights** (e.g. Deloitte (2019): The adoption of disruptive technologies in the consumer products industry - Spotlight on AI; Traverse (2018) for Citizens Advice: The future of the smart home: Current consumer attitudes towards Smart Home technology, TechUK (2020): The State of the Connected Home 2020 Report, etc.), **grey literature, news/blog articles, etc.**

The review will be guided by our own expertise in innovative technologies and consumer research, existing knowledge from our ongoing work on product safety for the EC and for BEIS, existing knowledge from / discussions with OPSS in order to identify relevant sources of information.

1:1 phone consultations

In order to obtain further input from key stakeholders, we will undertake **interviews with a range of key stakeholders** (see list of initial stakeholders). The interviews will complement and refine information gathered via the desk research and provide further information in particular on the ability and appetite of the LDA industry to implement safety improvements made possible by smart capabilities as well as any affects this will have on industry.

In order to facilitate a systematic analysis of evidence collected via interviews, we propose to conduct interviews in a structured way, where each interviewee is presented with a pre-defined set of questions in the same order. The questions that will be asked to interviewees will be agreed with OPSS prior to commencement of the fieldwork. We have budgeted to undertake **25-30 interviews**, which will be distributed between the different categories of stakeholders outlined in the initial list of stakeholders/agreed with the OPSS prior to commencement of the fieldwork. The selection of stakeholders to be interviewed will be drawn from the list of identified

stakeholders to be approached for interview.

Development of case studies

To illustrate points made, and to produce a more informative and engaging report, we will use actual/hypothetical case study examples where useful. Case study examples will be drawn from the desk research and from interviews (if permission by interviewees is granted). We envisage to include a number of shorter (around one paragraph) case study examples to illustrate points as they are made as well as 2-3 longer (around half page) case studies. The precise content and format of case study examples will be discussed with the OPSS at the inception meeting.

Output: The output of Stage 2 will be a **draft report** detailing the findings of the desk research and stakeholder interviews. The content/structure will be agreed on with OPSS; we envisage a 40-60 page report providing: a setting of the scene; a discussion of the research questions; a structured assessment and analysis of available literature; the findings of the desk research; and, a proposal of options for further actions. If too many areas of interest were identified in the desk research and interviews, the report will focus on the key areas. If this is the case, we will discuss and agree the focus of the report with OPSS in advance. The report will also use actual/hypothetical case study examples where useful to illustrate points made.

Stage 3: Further analysis

The data collected in Stage 2 will be used to feed into further analysis on i) a market analysis of costs and benefits of implementing additional hardware and software required for the product safety benefits highlighted, and ii) an valuation of the potential uplift in returns for product recalls which smart products.

Market analysis of costs and benefits of implementing additional hardware and software required for the product safety benefits highlighted

The evaluation methods used to estimate costs/benefits will depend on the range of costs and benefits identified. Useful approaches typically fall into the categories below:

- **Market-based estimates:** The usual assumption for transactions made in private markets is that the price paid reflects the producer's profit-maximising position (given constraints of competition etc) and at most the consumer's willingness to pay for the good or service due to the utility they receive from it.
- **Perception of value estimates:** Perception of value estimates provide an alternative non-market valuation method for valuing services not provided via private markets, for example a stated preference willingness to pay survey.
- **Avoided cost estimates:** Avoided cost approaches are frequently used when comparing two scenarios in which a certain service is/is not provided.

In the case of product safety benefits, we expect the most sizeable impacts to derive from the avoidance of injuries, illness, and fatalities, as well as the avoidance of damage to property. In these cases, avoided cost approaches provide the most natural way to estimate benefits.

For example, Home Office data shows that malfunctioning kitchen appliances have accounted for nearly 16,000 fires across the UK since 2012; with faulty washing machines and tumble dryers accounting for 35% of fires, followed by cookers and ovens (11%), dishwashers (10%), and fridges, freezers and fridge freezers (8%)¹. **An avoided cost approach can be used to quantify the avoided costs of fires** in the following way:

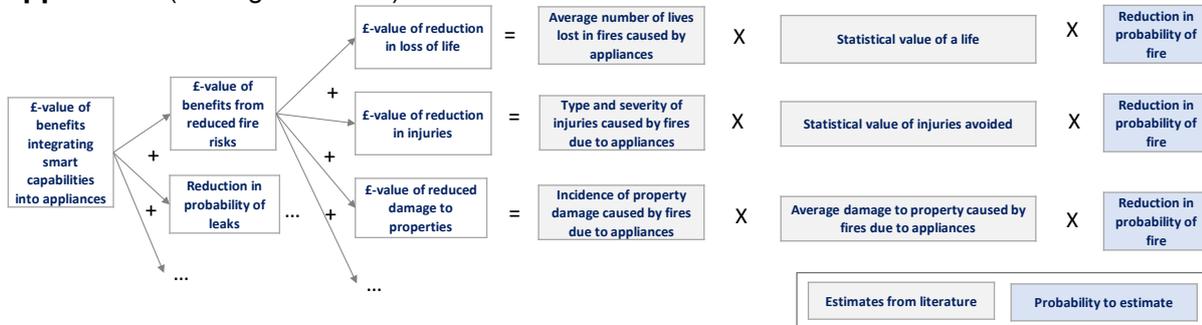
- 1) Analysing the outcomes of fire-related incidence in the UK (i.e. what was the average damage to property caused, how many fires resulted in injuries, how many fires resulted in deaths, etc.)
- 2) Put a £-value on the fire-related outcomes identified (e.g. the value of lives lost can be quantified using 'value of statistical life approaches'²)
- 3) Estimate the reduction in the probability of fires occurring as a result of including smart capabilities in appliances. Consideration will also need to be given to the proportion of

¹ [https://www.bbc.co.uk/news/business-43056887#:~:text=It%20concluded%20that%20malfunctioning%20kitchen,and%20fridge%20freezers%20\(8%25\).](https://www.bbc.co.uk/news/business-43056887#:~:text=It%20concluded%20that%20malfunctioning%20kitchen,and%20fridge%20freezers%20(8%25).)

² See <https://strata.org/pdf/2017/vsl-full-report.pdf>

appliances that will include smart features. This will include making plausible assumptions, validated by existing literature estimates as well as by speaking to manufacturers and product safety experts. Simulation techniques and sensitivity analysis can also be used to derive a sensible range of estimates.

Combining the analysis in each of these steps, together with the results of other benefit streams, will provide an **estimate of the benefits of integrating smart capabilities into appliances** (see figure below).



Finally, comparing these benefit estimates to the costs of integrating smart features into appliances will provide estimates of the **benefit : cost ratio** and **net present value**.

Evaluation of the potential uplift in returns for product recalls which smart products

A similar approach will be used to establish the potential uplift in returns for product recalls. Concretely, we will first establish the current proportion of product recalls by examining the existing literature. This proportion may vary by appliance type, though according Electrical Safety First, the average success rate of an electrical product recall in the UK is just 10-20%³. Second, we will triangulate evidence gathered from the desk research, and consultations with industry experts, and in particular data gathered from manufacturers, to derive plausible estimates of the potential increase in returns by using smart products.

Output: Following the market analysis and evaluation of potential uplift in returns for product recalls, we will update the draft report to incorporate the findings of the further analysis undertaken. The updated **draft final report** will also incorporate comments and feedback received from OPSS on the draft report.

Stage 4: Verification and updating of report

To verify assumptions/gain additional insights to incorporate into the study we will organise a meeting with key stakeholders. Stakeholders to be invited will be agreed with OPSS in advance. We propose to invite a mix including smart appliance/product safety experts, government, public or industry body representatives, industry stakeholders (e.g. manufacturers, smart appliance architects, condition monitoring experts), and other key stakeholders. Given ongoing COVID-19 uncertainty we propose to hold this meeting virtually. We have successfully delivered virtual focus groups and workshops for a number of recent projects using Zoom / Microsoft Teams and found these to have worked well. Holding a virtual meeting also facilitates attendances from stakeholders who may be unwilling to engage in a physical meeting because of underlying health conditions or concerns and those for whom geographical challenges would make attending a physical session not feasible.

Output: Following the stakeholder meeting we will produce a **final report** that updates the draft final report to incorporate outcomes of the stakeholder meeting as well as OPSS comments on the draft report.

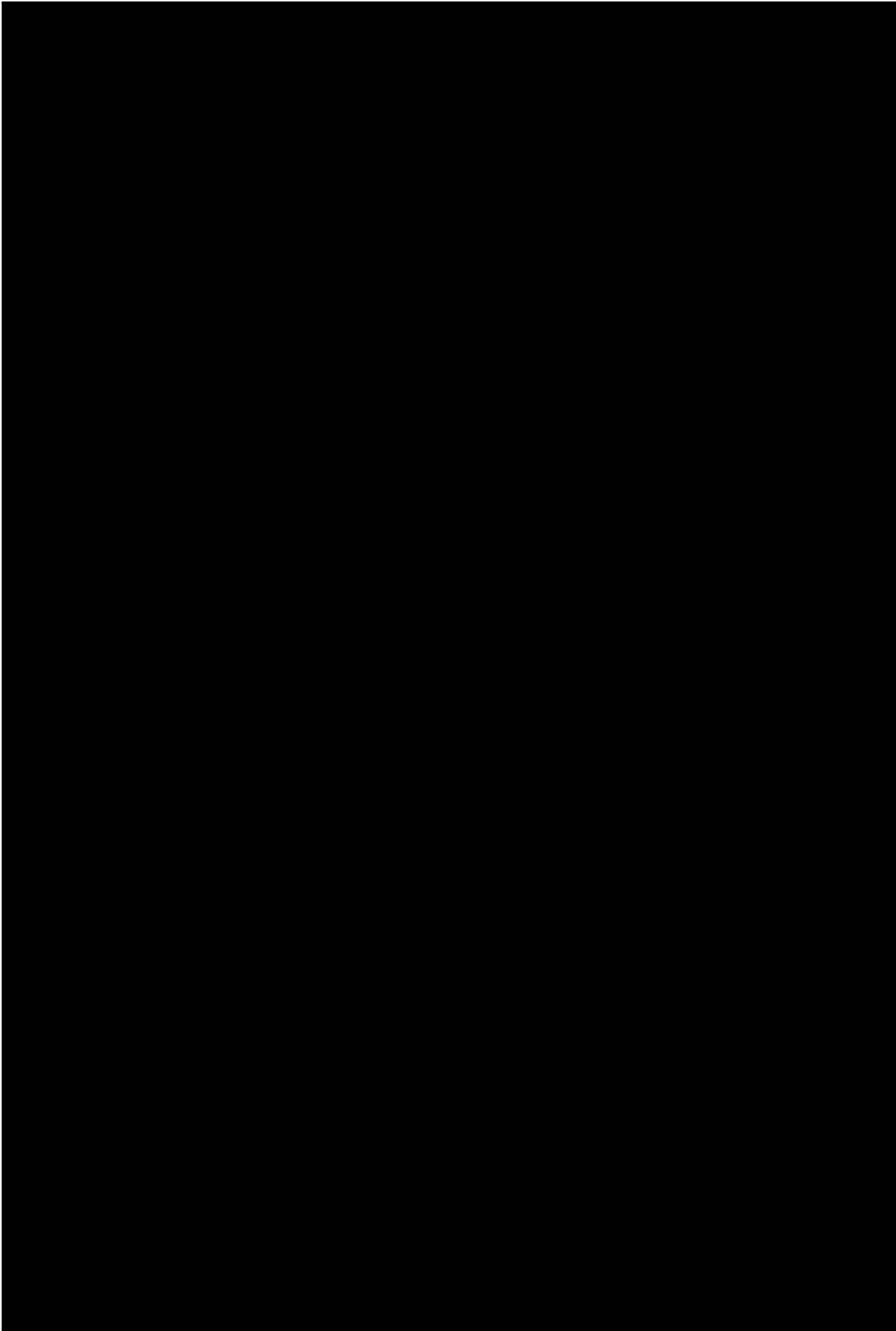
Stage 5: Dissemination

The final stage of the report will be the dissemination of project findings through a **presentation to BEIS staff**. We regularly present study findings to a wider audience including government / policy audiences. The content/format of the presentation will be agreed with OPSS in advance. We will also provide a draft presentation to the OPSS in advance. LE would also be pleased to support OPSS through other dissemination such as press releases and disseminating the report through our website and social media channels (Twitter, LinkedIn).

³ <https://www.electricalsafetyfirst.org.uk/product-recalls/>

Output: Presentation to BEIS staff and other dissemination activities if desired/useful.





⁴ *Product safety key issues—RoSPA*. (n.d.). Retrieved from <https://www.rospa.com/home-safety/resources/policy-statements/product-safety-key-issues>

⁵ *Fire statistics data tables*. (2021). GOV.UK. <https://www.gov.uk/government/statistical-data-sets/fire-statistics-data-tables>

⁶ Allen, M. (2016). *Faulty electrical appliances: Know the risks - Intellectual Property Office blog*. <https://ipo.blog.gov.uk/2016/10/21/faulty-electrical-appliances-know-the-risks/>

⁷ Electrical Safety First. (2014). *Consumer Voices on Product Recall*. Electrical Safety First. <https://www.electricalsafetyfirst.org.uk/media/1259/product-recall-report-2014.pdf>

⁸ Consumers, Health, Agriculture and Food Executive Agency., & IPSOS. (2019). *Survey on consumer behaviour and product recalls effectiveness: Final report*. Publications Office. <https://data.europa.eu/doi/10.2818/646367>

⁹ Dragani, R. (2020). *Definition of Smart Appliances*. Hunker. <https://www.hunker.com/13409415/definition-of-smart-appliances>

¹⁰ London Fire Brigade. (n.d.). *Cooking—Fire safety at home*. Retrieved from <https://www.london-fire.gov.uk/safety/the-home/cooking/>

¹¹ Repair Aid. (n.d.). *Everything You Need To Know About Smart Washing Machines*. Repair Aid London Ltd. Retrieved from <https://www.repairaid.co.uk/smart-washing-machines-explained/>

¹² Digiteum. (2020). *How IoT Improves Condition Monitoring Services*. Digiteum. <https://www.digiteum.com/condition-monitoring-and-internet-of-things/>

¹³ Ikoba, J. J. (2020). *Samsung launches AI-powered Washing Machine and Dryer*. *Gizmochina*. <https://www.gizmochina.com/2020/01/31/samsung-launches-an-ai-powered-washing-machine-and-dryer/>

when used in conjunction with IoT.¹⁴

The smart appliance market, which includes LDAs, has been steadily growing. Revenue of the UK smart appliance market has grown from \$842m in 2017 to £1,022m¹⁵ – and is projected to grow to £2,456m¹⁶ by 2025. Smart Appliances are also increasingly found within UK households - 3.7% of households in 2017 had a smart appliance, increasing to 7.2% in 2020, with a forecasted growth to 22.6% of homes by 2025.¹⁷

With the increasing prevalence of smart appliances, there is opportunity to use this new technology to improve safety. The purpose of this project is to assess (among other related objectives) the potential and actual risks domestic appliances pose to consumers; how IoT technology can be used by manufacturers and product designers to enhance safety; and the barriers and drivers on the LDA industry for implementing these changes.

Data Sources

Currently identified data sources and literature follows – this table is an indicative list and serves as a starting point, we envisage this is only a subset of the final literature and data sources used in the final report.

Dataset/Study	Notes
Home Office Fire data	Publishes data on fires in the UK. Faulty appliances and leads is listed as a cause of fire in dataset FIRE0601
UK HASS/LASS	Records accidents warranting a visit to hospital in the UK between 1970 to 2002. The sample covers a representative mix of eighteen hospitals.
US NEISS data	Reports patient information for every emergency department visit associated with a consumer product or a poisoning to a child younger than five years old in a nationally representative probability sample of hospitals in the US.
European Injury database	Records injuries within the EU.
RAPEX Safety Gate data	Data published on the products being recalled in the EU. The data provides information on each notification in the RAPEX system.
Product Safety Database	A relatively new dataset established in anticipation of Brexit held by OPSS. This contains the results of risk assessments for products that cause serious risk (or other levels of risk that require action) .
EU Risk Assessment Guidelines	Lays out the procedure for a risk assessment. Risk is combination of severity of injury and the likelihood of harm occurring.
BEIS Effectiveness of product recalls	This report from BEIS details the effectiveness of product recalls.
Electrical Safety First	Report from ESF on the success of product recalls.

Project delivery

In our response to PROJ1.1 we have set out a thorough approach to the study. Each phase of the study will provide key deliverables to the OPSS, allowing the OPSS to track progress of the study. Moreover, we will also hold regular catch-up calls between LE’s project team and the OPSS. Our consultants are highly-qualified economists with extensive experience in undertaking a large number of research projects for UK Government clients. As shown in our response to PROJ1.2 we have assigned an experienced team with the necessary skills and well

¹⁴ Ali, Y. H. (2018). Artificial Intelligence Application in Machine Condition Monitoring and Fault Diagnosis. *Artificial Intelligence - Emerging Trends and Applications*. <https://doi.org/10.5772/intechopen.74932>

¹⁵ Converted from dollars using BoE exchange rate

¹⁶ Converted from dollars using BoE exchange rate

¹⁷ This figure refers to penetration from smart appliances generally, including non LDAs such as coffee machines or vacuum robots. The penetration rate of LDAs may therefore be smaller.

as experience in the area in order to deliver the project, including expertise in:

Research related to consumer issues: LE has extensive experience in the provision of complex consumer research studies that have informed policy, both in the UK and EU, in sectors including product safety, retail financial services, retail energy markets, digital markets, water and legal services. These studies frequently combine both quantitative methods (such as surveys and behavioural experiments) with qualitative methods (such as in-depth interviews, stakeholder interviews, workshops and focus groups), as well as extensive desk research and literature reviews. Current relevant studies include two studies LE is currently undertaking related to product safety: One, for the European Commission, on remedies to maximise the effectiveness of product recalls, examining various means of increasing product recall effectiveness including IoT. The other, an evaluation of the BEISS OPSS Ports and Borders Programme, evaluating consumer and business detriment arising from removing unsafe products from the supply chain. Other recent relevant studies include: Consumers' valuation of the services provided by the Food Standards Agency, including food safety standards; General Insurance Pricing Practices for the Financial Conduct Authority, incl. a complex survey valuing consumers' effort spent searching for or switching between insurance providers; Consumer engagement in the Circular Economy, for the European Commission, incl. desk research, a literature review, consumer focus groups and a behavioural experiment incl. valuation of product durability.

IoT and wider technology sectors: LE's experience includes, among many others, our recent studies include assessing how the UK space sector could benefit from new innovations provided by Industry 4.0 (internet of things, artificial intelligence, big data, robotics, etc.) researching the current and potential uptake of Robotics and Autonomous Systems in a number of UK sectors (including consumer-facing applications); and assessing the potential productivity impact of AI adoption across broad industry sectors in Ireland, for Microsoft; . Many of these projects involved extensive desk-research as well as extensive primary data collection in the form of surveys, focus groups and 1:1 interviews. London Economics is also represented on the European Parliament's AI Observatory, which is a cross-disciplinary body that brings together academic and other experts with the aim of advising the European Parliament on developments in the area of AI and their relevance for policy-making. In addition, London Economics has worked for regulatory and policy bodies in the data economy and innovative technology sphere, including the ICO, DCMS, DG Connect, and the Personal Data Protection Commission of Singapore (PDPC), and has undertaken research, for UK Government clients, on a wide range of further technology sectors including High Performance Computing, Nuclear Fusion, Advanced Materials, Blockchain technologies, Artificial Intelligence, among others.

In all the research work we undertake, we invest appropriate resources to ensure that the project runs smoothly from inception to the presentation of final deliverables. The Project Director, Moritz Godel, will ensure that the resources of LE are properly allocated throughout the research project to guarantee the ongoing quality and delivery of all outputs. Finally, we have set out a detailed project plan and timeline, including buffers to allow extra time for stakeholder consultations if this becomes necessary.

Project Plan

The figure below provides a comprehensive draft work plan and timetable for the research, including proposed key milestones and deadlines. We also propose additional regular calls (suggested bi-weekly) to provide updates on emerging findings and progress, as desired, throughout the project delivery. We include in this workplan optional work by graphic designers. Please note, the work plan is a draft proposal of the work schedule based on our current understanding of the requirements. We will refine the work plan and timetable together with OPSS at the inception meeting.

Administrative date or meeting:	X
Deliverable:	0
Work undertaken by project team:	

Key dates & deliverables

- Contract start date (1 March 2021)
- Kick-off meeting
- Proposed progress updates
- Delivery of inception report
- Start of Phase 2 or expiration of contract
- Delivery of list of stakeholders and topics guide
- Delivery of draft report
- Delivery of draft final report
- Stakeholder verification workshop
- Delivery of final report
- Presentation of findings
- Contract end (2 August 2021)

Kick-off meeting and inception report

- Definition of sample and preliminary stakeholder list
- Preparation of inception report

Preliminary desk research & identification of further key stakeholders

- Preliminary desk research
- Identification of key stakeholders
- Development of topic guide

Data collection

- Review of existing literature
- 1:1 phone consultations (incl. admin)
- Development of case studies

Further analysis

- Market analysis: costs & benefits
- Evaluation of uplift in product recalls

Verification of findings

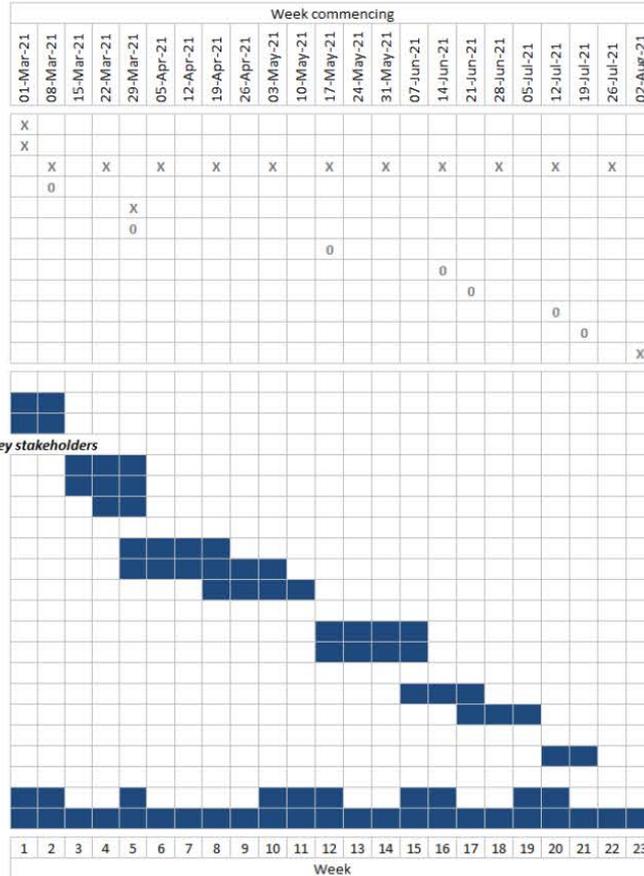
- Organisation of stakeholder meeting
- Analysis and implementation of workshop results

Dissmination

- Preparation for presentation of findings

Reporting & QA

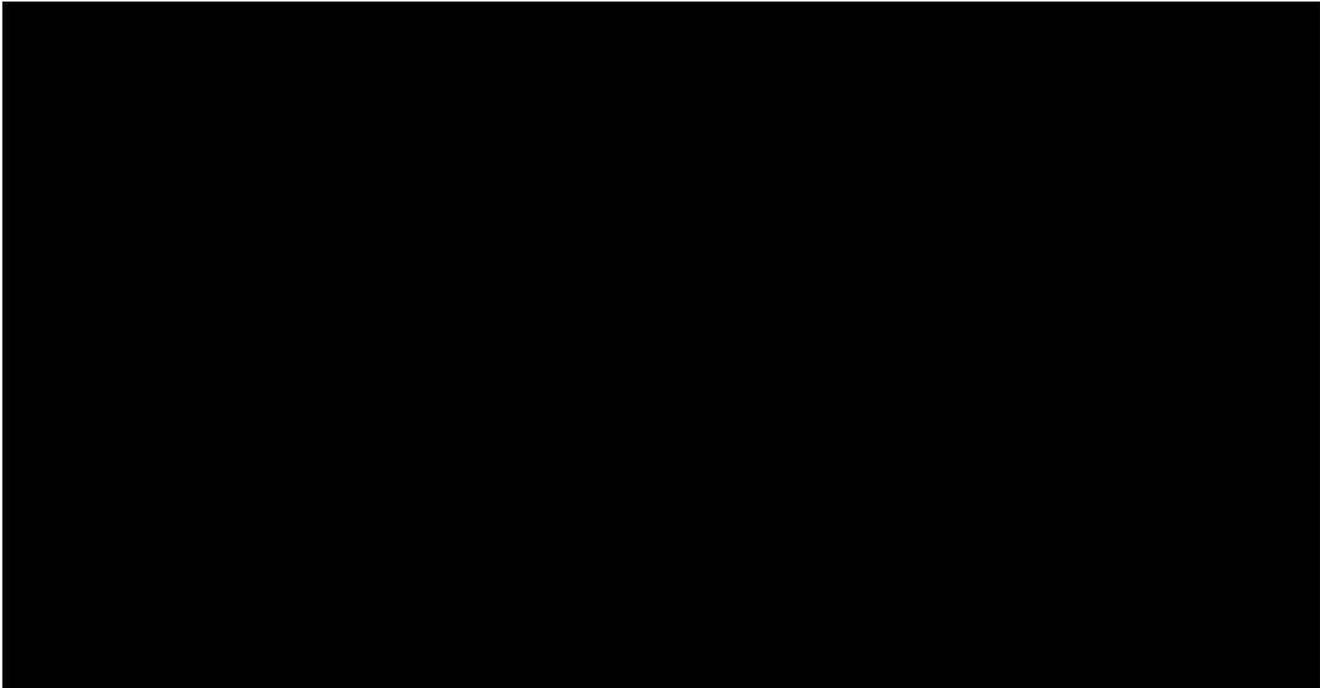
- Reporting
- On-going quality assurance



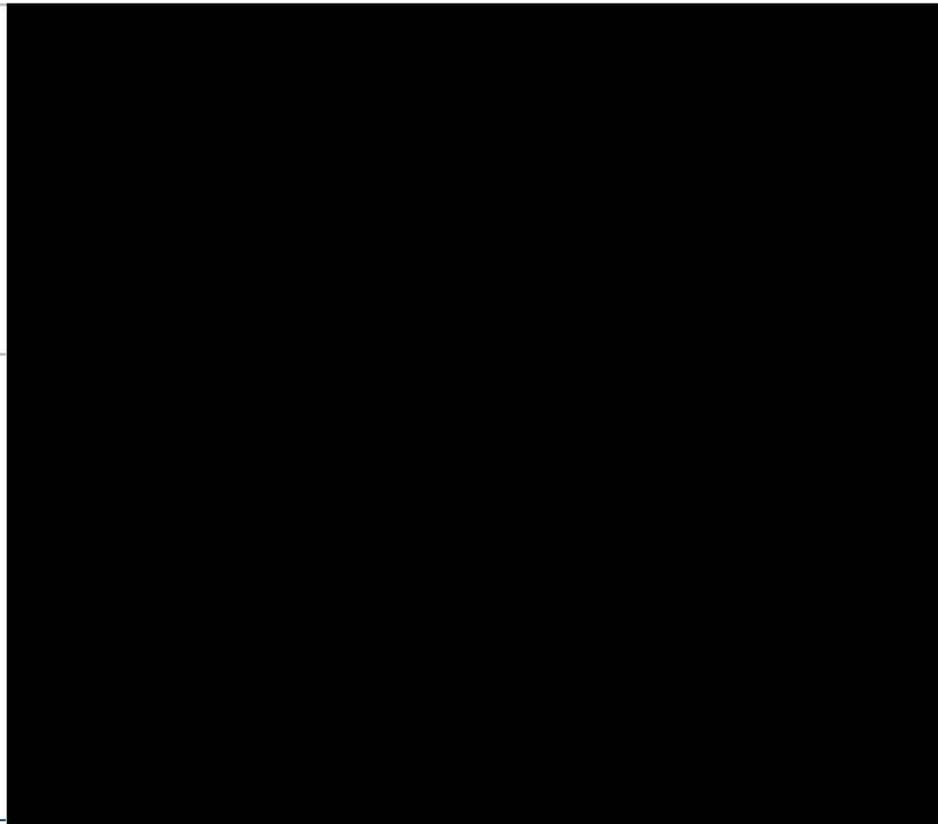
**PROJ1.4:
Risk**

Management

This section presents the key risks associated with the delivery of this project and our measures for mitigating these risks.



Insufficient sector knowledge and experience	
Analysis stage: Insufficient data with which to reliably establish impacts	
Analysis stage: Conflicting assumptions	
Failure to deliver research on time	
Failure to deliver research on budget	
Considerations of COVID-19: Undertaking stakeholder consultations	

<p>Considerations of COVID-19: Unavailability of interviews</p>	
<p>Insufficient attendance at verification workshop</p>	