



Department for
Science, Innovation
& Technology

Spectrum Sandbox

**ITT under CCS DPS RM6126 Research &
Insights**

Tender Reference Number: itt_51276

DPS Schedule 6

(Order Form and Order Schedules)

Order Form

ORDER REFERENCE: con_5906

THE BUYER: **Department for Science, Innovation and Technology (DSIT)**

BUYER ADDRESS 100 Parliament Street, London SW1A 2BQ

THE SUPPLIER: Durham University

SUPPLIER ADDRESS: **REDACTED**
REDACTED
REDACTED
REDACTED

REGISTRATION NUMBER: RC000650

DUNS NUMBER: **REDACTED**

APPLICABLE DPS CONTRACT

This Order Form is for the provision of the Deliverables and dated 22/03/2024.

It's issued under the DPS Contract with the reference number RM6126 for the provision of Spectrum Sandbox ITT

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DPS FILTER CATEGORY(IES): NA

ORDER INCORPORATED TERMS

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

1. This Order Form including the Order Special Terms and Order Special Schedules.
 - Joint Schedules for **RM6126**
 - Joint Schedule 1 (Definitions)
 - Joint Schedule 2 (Variation Form)
 - Joint Schedule 3 (Insurance Requirements)
 - Joint Schedule 4 (Commercially Sensitive Information)

- Joint Schedule 5 (Corporate Social Responsibility)
- Joint Schedule 6 (Subcontractors)
- Joint Schedule 7 (Financial Difficulties)
- Joint Schedule 10 (Rectification Plan)
- Joint Schedule 11 (Processing Data)
- Order Schedules for **RM6126**
 - Order Schedule 1 (Transparency Reports)
 - Order Schedule 2 (Staff Transfer)
 - Order Schedule 3 (Continuous Improvement)
 - Order Schedule 4 (Order Tender)
 - Order Schedule 5 (Pricing Details)
 - Order Schedule 7 (Key Supplier Staff)
 - Order Schedule 8 (Business Continuity and Disaster Recovery)
 - Order Schedule 9 (Security)
 - Order Schedule 10 (Exit Management)
 - Order Schedule 14 (Service Levels)
 - Order Schedule 15 (Order Contract Management)
 - Order Schedule 16 (Benchmarking)
 - Order Schedule 20 (Order Specification)

2. CCS Core Terms (DPS version) v1.0.3

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

ORDER SPECIAL TERMS

Not Applicable

ORDER START DATE: **25/03/2024**

ORDER EXPIRY DATE: **24/03/2025**

ORDER INITIAL PERIOD: **12 months**

DELIVERABLES:

See details in Order Schedule 20 (Order Specification)]

MAXIMUM LIABILITY

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

ORDER CHARGES

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

The Charges will not be impacted by any change to the DPS Pricing. The Charges can only be changed by agreement in writing between the Buyer and the Supplier because of:

- Specific Change in Law

REIMBURSABLE EXPENSES

None

PAYMENT METHOD

Invoiced monthly to Invoice Address

BUYER'S INVOICE ADDRESS:

Department for Science, Innovation and Technology

FNPFinance@dsit.gov.uk

100 Parliament St, London, SW1A 2BQ

BUYER'S AUTHORISED REPRESENTATIVE

Suzanne Anderson

Commercial Lead

suzanne.anderson@dsit.gov.uk

100 Parliament St, London, SW1A 2BQ

BUYER'S ENVIRONMENTAL POLICY

<https://www.gov.uk/government/organisations/department-for-science-innovation-and-technology>

BUYER'S SECURITY POLICY

<https://www.gov.uk/government/publications/security-policy-framework>

SUPPLIER'S AUTHORISED REPRESENTATIVE

REDACTED

SUPPLIER'S CONTRACT MANAGER

REDACTED

PROGRESS REPORT FREQUENCY

Progress reporting will take place verbally as required. A weekly call with the project manager to provide a high-level verbal update and highlight any immediate risk/issues impacting research progress (frequency reviewed throughout the contract term).

PROGRESS MEETING FREQUENCY (SERVICE PERIOD)

The Supplier is required on a bi-weekly basis to provide a written update to DSIT on the research's progress, flag any emerging issues and risks and updates regarding the research itself and quality assurance" (as and when applicable).

KEY STAFF

REDACTED

KEY SUBCONTRACTOR(S)
Telet Research (N.I.) Limited
TRL Limited
Ranplan Wireless Network Design Limited
London Economics Limited

E-AUCTIONS
Not Applicable
SERVICE CREDITS
Detailed within Order Schedule 14 Annex to Part A

COMMERCIALLY SENSITIVE INFORMATION
Supplier Pricing provided in Order Schedule 5

ADDITIONAL INSURANCES
Not applicable

GUARANTEE
Not applicable

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

For and on behalf of the Supplier:		For and on behalf of the Buyer:	
Signature:	<div>DocuSigned by: REDACTED F69BF7FB3479425...</div>	Signature:	<div>DocuSigned by: REDACTED 16223A17D89B4BF...</div>
Name:	REDACTED	Name:	REDACTED
Role:	University Secretary	Role:	Mr
Date:	03/06/2024	Date:	28/05/2024

Joint Schedule 1 (Definitions)

1.1 In each Contract, unless the context otherwise requires, capitalised expressions shall have the meanings set out in this Joint Schedule 1 (Definitions) or the relevant Schedule in which that capitalised expression appears.

1.2 If a capitalised expression does not have an interpretation in this Schedule or any other Schedule, it shall, in the first instance, be interpreted in accordance with the common interpretation within the relevant market sector/industry where appropriate. Otherwise, it shall be interpreted in accordance with the dictionary meaning.

1.3 In each Contract, unless the context otherwise requires:

1.3.1 the singular includes the plural and vice versa; 1.3.2 reference to a gender includes the other gender and the neuter; 1.3.3 references to a person include an individual, company, body corporate, corporation, unincorporated association, firm, partnership or other legal entity or Crown Body;

1.3.4 a reference to any Law includes a reference to that Law as amended, extended, consolidated or re-enacted from time to time;

1.3.5 the words "**including**", "**other**", "**in particular**", "**for example**" and similar words shall not limit the generality of the preceding words and shall be construed as if they were immediately followed by the words "**without limitation**";

1.3.6 references to "**writing**" include typing, printing, lithography, photography, display on a screen, electronic and facsimile transmission and other modes of representing or reproducing words in a visible form, and expressions referring to writing shall be construed accordingly;

1.3.7 references to "**representations**" shall be construed as references to present facts, to "**warranties**" as references to present and future facts and to "**undertakings**" as references to obligations under the Contract;

1.3.8 references to "**Clauses**" and "**Schedules**" are, unless otherwise provided, references to the clauses and schedules of the Core Terms and references in any Schedule to parts, paragraphs, annexes and tables are, unless otherwise provided, references to the parts, paragraphs, annexes and tables of the Schedule in which these references appear;

1.3.9 references to "**Paragraphs**" are, unless otherwise provided, references to the paragraph of the appropriate Schedules unless otherwise provided;

1.3.10 references to a series of Clauses or Paragraphs shall be inclusive of the clause numbers specified;

1.3.11 the headings in each Contract are for ease of reference only and shall not affect the interpretation or construction of a Contract; and 1.3.12 where the Buyer is a Crown Body the Supplier shall be treated as contracting with the Crown as a whole.

1.4 In each Contract, unless the context otherwise requires, the following words shall have the following meanings:

"Achieve"	in respect of a Test, to successfully pass such Test without any Test Issues and in respect of a Milestone, the issue of a Satisfaction Certificate in respect of that Milestone and " Achieved ", " Achieving " and " Achievement " shall be construed accordingly;
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"Additional Insurances"	insurance requirements relating to an Order Contract specified in the Order Form additional to those outlined in Joint Schedule 3 (Insurance Requirements);
"Admin Fee"	means the costs incurred by CCS in dealing with MI Failures calculated in accordance with the tariff of administration charges published by the CCS on: http://CCS.cabinetoffice.gov.uk/i-amsupplier/management-information/admin-fees ;
"Affected Party"	the party seeking to claim relief in respect of a Force Majeure Event;
"Affiliates"	in relation to a body corporate, any other entity which directly or indirectly Controls, is Controlled by, or is under direct or indirect common Control of that body corporate from time to time;
"Annex"	extra information which supports a Schedule;
"Approval"	the prior written consent of the Buyer and "Approve" and "Approved" shall be construed accordingly;
"Audit"	<p>the Relevant Authority's right to:</p> <ul style="list-style-type: none"> a) verify the accuracy of the Charges and any other amounts payable by a Buyer under an Order Contract (including proposed or actual variations to them in accordance with the Contract); b) verify the costs of the Supplier (including the costs of all Subcontractors and any third party suppliers) in connection with the provision of the Services; c) verify the Open Book Data; d) verify the Supplier's and each Subcontractor's compliance with the applicable Law; e) identify or investigate actual or suspected breach of Clauses 27 to 33 and/or Joint Schedule 5 (Corporate Social Responsibility), impropriety or accounting mistakes or any breach or threatened breach of security and in these circumstances the Relevant Authority shall have no obligation to inform the Supplier of the purpose or objective of its investigations;

	<p>f) identify or investigate any circumstances which may impact upon the financial stability of the Supplier, any Guarantor, and/or any</p> <p>Subcontractors or their ability to provide the Deliverables;</p> <p>g) obtain such information as is necessary to fulfil the Relevant Authority's obligations to supply information for parliamentary, ministerial, judicial or administrative purposes including the supply of information to the Comptroller and Auditor General;</p> <p>h) review any books of account and the internal contract management accounts kept by the Supplier in connection with each Contract;</p> <p>i) carry out the Relevant Authority's internal and statutory audits and to prepare, examine and/or certify the Relevant Authority's annual and interim reports and accounts;</p> <p>j) enable the National Audit Office to carry out an examination pursuant to Section 6(1) of the National Audit Act 1983 of the economy, efficiency and effectiveness with which the Relevant Authority has used its resources;</p> <p>k) verify the accuracy and completeness of any Management</p> <p>Information delivered or required by the DPS Contract;</p>
"Auditor"	<p>a) the Buyer's internal and external auditors;</p> <p>b) the Buyer's statutory or regulatory auditors;</p> <p>c) the Comptroller and Auditor General, their staff and/or any appointed representatives of the National Audit Office;</p> <p>d) HM Treasury or the Cabinet Office;</p> <p>e) any party formally appointed by the Buyer to carry out audit or similar review functions; and</p> <p>f) successors or assigns of any of the above;</p>
"Authority"	CCS and each Buyer;
"Authority Cause"	any breach of the obligations of the Relevant Authority or any other default, act, omission, negligence or statement of the Relevant Authority, of its employees, servants, agents in connection with or in relation to the subject-matter of the Contract and in respect of which the Relevant Authority is liable to the Supplier;
"BACS"	the Bankers' Automated Clearing Services, which is a scheme for the electronic processing of financial transactions within the United Kingdom;

"Beneficiary"	a Party having (or claiming to have) the benefit of an indemnity under this Contract;
"Buyer"	the relevant public sector purchaser identified as such in the Order Form;
"Buyer Assets"	the Buyer's infrastructure, data, software, materials, assets, equipment or other property owned by and/or licensed or leased to the Buyer and which is or may be used in connection with the provision of the Deliverables which remain the property of the Buyer throughout the term of the Contract;
"Buyer Authorised Representative"	the representative appointed by the Buyer from time to time in relation to the Order Contract initially identified in the Order Form;
"Buyer Premises"	premises owned, controlled or occupied by the Buyer which are made available for use by the Supplier or its Subcontractors for the provision of the Deliverables (or any of them);
"CCS"	the Minister for the Cabinet Office as represented by Crown Commercial Service, which is an executive agency and operates as a trading fund of the Cabinet Office, whose offices are located at 9th Floor, The Capital, Old Hall Street, Liverpool L3 9PP;
"CCS Authorised Representative"	the representative appointed by CCS from time to time in relation to the DPS Contract initially identified in the DPS Appointment Form and subsequently on the Platform;
"Central Government Body"	<p>a body listed in one of the following sub-categories of the Central Government classification of the Public Sector Classification Guide, as published and amended from time to time by the Office for National Statistics:</p> <ul style="list-style-type: none"> a) Government Department; b) Non-Departmental Public Body or Assembly Sponsored Public Body (advisory, executive, or tribunal); c) Non-Ministerial Department; or d) Executive Agency;
"Change in Law"	any change in Law which impacts on the supply of the Deliverables and performance of the Contract which comes into force after the Start Date;
"Change of Control"	a change of control within the meaning of Section 450 of the Corporation Tax Act 2010;

"Charges"	the prices (exclusive of any applicable VAT), payable to the Supplier by the Buyer under the Order Contract, as set out in the Order Form, for the full and proper performance by the Supplier of its obligations under the Order Contract less any Deductions;
"Claim"	any claim which it appears that a Beneficiary is, or may become, entitled to indemnification under this Contract;
"Commercially Sensitive Information"	the Confidential Information listed in the DPS Appointment Form or Order Form (if any) comprising of commercially sensitive information relating to the Supplier, its IPR or its business or which the Supplier has indicated to the Authority that, if disclosed by the Authority,

	would cause the Supplier significant commercial disadvantage or material financial loss;
"Comparable Supply"	the supply of Deliverables to another Buyer of the Supplier that are the same or similar to the Deliverables;
"Compliance Officer"	the person(s) appointed by the Supplier who is responsible for ensuring that the Supplier complies with its legal obligations;
"Confidential Information"	means any information, however it is conveyed, that relates to the business, affairs, developments, trade secrets, Know-How, personnel and suppliers of CCS, the Buyer or the Supplier, including IPRs, together with information derived from the above, and any other information clearly designated as being confidential (whether or not it is marked as "confidential") or which ought reasonably to be considered to be confidential;
"Conflict of Interest"	a conflict between the financial or personal duties of the Supplier or the Supplier Staff and the duties owed to CCS or any Buyer under a Contract, in the reasonable opinion of the Buyer or CCS;
"Contract"	either the DPS Contract or the Order Contract, as the context requires;
"Contracts Finder"	the Government's publishing portal for public sector procurement opportunities;
"Contract Period"	the term of either a DPS Contract or Order Contract from the earlier of the: <ul style="list-style-type: none"> a) applicable Start Date; or b) the Effective Date until the applicable End Date;
"Contract Value"	the higher of the actual or expected total Charges paid or payable under a Contract where all obligations are met by the Supplier;
"Contract Year"	a consecutive period of twelve (12) Months commencing on the Start Date or each anniversary thereof;

"Control"	control in either of the senses defined in sections 450 and 1124 of the Corporation Tax Act 2010 and "Controlled" shall be construed accordingly;
"Controller"	has the meaning given to it in the GDPR;
"Core Terms"	CCS' standard terms and conditions for common goods and services which govern how Supplier must interact with CCS and Buyers under DPS Contracts and Order Contracts;
"Costs"	<p>the following costs (without double recovery) to the extent that they are reasonably and properly incurred by the Supplier in providing the Deliverables:</p> <p>a) the cost to the Supplier or the Key Subcontractor (as the context requires), calculated per Man Day, of engaging the Supplier Staff, including:</p>

	<p>i) base salary paid to the Supplier Staff; ii) employer's National Insurance contributions; iii) pension contributions; iv) car allowances;</p> <p>v) any other contractual employment benefits;</p> <p>vi) staff training; vii) work place accommodation; viii) work place IT equipment and tools reasonably necessary to provide the Deliverables (but not including items included within limb (b) below); and</p> <p>ix) reasonable recruitment costs, as agreed with the Buyer;</p> <p>b) costs incurred in respect of Supplier Assets which would be treated as capital costs according to generally accepted accounting principles within the UK, which shall include the cost to be charged in respect of Supplier Assets by the Supplier to the Buyer or (to the extent that risk and title in any Supplier Asset is not held by the Supplier) any cost actually incurred by the Supplier in respect of those Supplier Assets;</p> <p>c) operational costs which are not included within (a) or (b) above, to the extent that such costs are necessary and properly incurred by the Supplier in the provision of the Deliverables;</p> <p>d) Reimbursable Expenses to the extent these have been specified as allowable in the Order Form and are incurred in delivering any Deliverables; but excluding:</p> <p>a) Overhead;</p> <p>b) financing or similar costs;</p> <p>c) maintenance and support costs to the extent that these relate to maintenance and/or support Deliverables provided beyond the Order Contract Period whether in relation to Supplier Assets or otherwise;</p> <p>d) taxation;</p> <p>e) fines and penalties;</p> <p>f) amounts payable under Order Schedule 16 (Benchmarking) where such Schedule is used; and</p> <p>g) non-cash items (including depreciation, amortisation, impairments and movements in provisions);</p>
"Crown Body"	<p>the government of the United Kingdom (including the Northern Ireland Assembly and Executive Committee, the Scottish Government and the National Assembly for Wales), including, but not limited to, government ministers and government departments</p>

	and particular bodies, persons, commissions or agencies from time to time carrying out functions on its behalf;
"CRTPA"	the Contract Rights of Third Parties Act 1999;
"Data Protection Impact Assessment"	an assessment by the Controller of the impact of the envisaged Processing on the protection of Personal Data;
"Data Protection Legislation"	(i) the GDPR, the LED and any applicable national implementing Laws as amended from time to time (ii) the DPA 2018 to the extent that it relates to Processing of personal data and privacy; (iii) all applicable Law about the Processing of personal data and privacy;
"Data Protection Officer"	has the meaning given to it in the GDPR;
"Data Subject"	has the meaning given to it in the GDPR;
"Data Subject Access Request"	a request made by, or on behalf of, a Data Subject in accordance with rights granted pursuant to the Data Protection Legislation to access their Personal Data;
"Deductions"	all Service Credits, Delay Payments (if applicable), or any other deduction which the Buyer is paid or is payable to the Buyer under an Order Contract;
"Default"	any breach of the obligations of the Supplier (including abandonment of a Contract in breach of its terms) or any other default (including material default), act, omission, negligence or statement of the Supplier, of its Subcontractors or any Supplier Staff howsoever arising in connection with or in relation to the subject-matter of a Contract and in respect of which the Supplier is liable to the Relevant Authority;
"Default Management Levy"	has the meaning given to it in Paragraph 8.1.1 of DPS Schedule 5 (Management Levy and Information);
"Delay Payments"	the amounts (if any) payable by the Supplier to the Buyer in respect of a delay in respect of a Milestone as specified in the Mobilisation Plan;
"Deliverables"	Goods and/or Services that may be ordered under the Contract including the Documentation;
"Deliverables IPR"	has the meaning given in Clause 9.2;

"Delivery"	delivery of the relevant Deliverable or Milestone in accordance with the terms of an Order Contract as confirmed and accepted by the Buyer by either (a) confirmation in writing to the Supplier; or (b) where Order Schedule 13 (Implementation Plan and Testing) is used, issue by the Buyer of a Satisfaction Certificate. "Deliver" and "Delivered" shall be construed accordingly;
"Disaster"	the occurrence of one or more events which, either separately or cumulatively, mean that the Deliverables, or a material part thereof

	will be unavailable (or could reasonably be anticipated to be unavailable) for the period specified in the Order Form (for the purposes of this definition the "Disaster Period");
"Disclosing Party"	the Party directly or indirectly providing Confidential Information to the other Party in accordance with Clause 15 (What you must keep confidential);
"Dispute"	any claim, dispute or difference arises out of or in connection with the Contract or in connection with the negotiation, existence, legal validity, enforceability or termination of the Contract, whether the alleged liability shall arise under English law or under the law of some other country and regardless of whether a particular cause of action may successfully be brought in the English courts;
"Dispute Resolution Procedure"	the dispute resolution procedure set out in Clause 34 (Resolving disputes);
"Documentation"	<p>descriptions of the Services and Service Levels, technical specifications, user manuals, training manuals, operating manuals, process definitions and procedures, system environment descriptions and all such other documentation (whether in hardcopy or electronic form) is required to be supplied by the Supplier to the Buyer under a Contract as:</p> <ul style="list-style-type: none"> a) would reasonably be required by a competent third party capable of Good Industry Practice contracted by the Buyer to develop, configure, build, deploy, run, maintain, upgrade and test the individual systems that provide the Deliverables; b) is required by the Supplier in order to provide the Deliverables; and/or <p>has been or shall be generated for the purpose of providing the Deliverables;</p>
"DOTAS"	the Disclosure of Tax Avoidance Schemes rules which require a promoter of tax schemes to tell HMRC of any specified notifiable arrangements or proposals and to provide prescribed information on those arrangements or proposals within set time limits as contained in Part 7 of the Finance Act 2004 and in secondary legislation made under vires contained in Part 7 of the Finance Act 2004 and as extended to National Insurance Contributions;

"DPA 2018"	a) the Data Protection Act 2018;
"DPS"	the dynamic purchasing system operated by CCS in accordance with Regulation 34 that this DPS Contract governs access to;
"DPS Application"	the application submitted by the Supplier to CCS and annexed to or referred to in DPS Schedule 2 (DPS Application);
"DPS Appointment Form"	the document outlining the DPS Incorporated Terms and crucial information required for the DPS Contract, to be executed by the Supplier and CCS and subsequently held on the Platform;

"DPS Contract"	the dynamic purchasing system access agreement established between CCS and the Supplier in accordance with Regulation 34 by the DPS Appointment Form for the provision of the Deliverables to Buyers by the Supplier pursuant to the OJEU Notice;
"DPS Contract Period"	the period from the DPS Start Date until the End Date or earlier termination of the DPS Contract;
"DPS Expiry Date"	the date of the end of the DPS Contract as stated in the DPS Appointment Form;
"DPS Incorporated Terms"	the contractual terms applicable to the DPS Contract specified in the DPS Appointment Form;
"DPS Initial Period"	the initial term of the DPS Contract as specified in the DPS Appointment Form;
"DPS Optional Extension Period"	such period or periods beyond which the DPS Initial Period may be extended up to a maximum of the number of years in total specified in the DPS Appointment Form;
"DPS Pricing"	the maximum price(s) applicable to the provision of the Deliverables set out in DPS Schedule 3 (DPS Pricing);
"DPS Registration"	the registration process a Supplier undertakes when submitting its details onto the Platform;
"DPS SQ Submission"	the Supplier's selection questionnaire response;
"DPS Special Terms"	any additional terms and conditions specified in the DPS Appointment Form incorporated into the DPS Contract;
"DPS Start Date"	the date of start of the DPS Contract as stated in the DPS Appointment Form;
"Due Diligence Information"	any information supplied to the Supplier by or on behalf of the Authority prior to the Start Date;
"Effective Date"	the date on which the final Party has signed the Contract;
"EIR"	the Environmental Information Regulations 2004;

"Employment Regulations"	the Transfer of Undertakings (Protection of Employment) Regulations 2006 (SI 2006/246) as amended or replaced or any other Regulations implementing the European Council Directive 77/187/EEC;
"End Date"	the earlier of: a) the Expiry Date (as extended by any Extension Period exercised by the Authority under Clause 10.2); or if a Contract is terminated before the date specified in (a) above, the date of termination of the Contract;
"Environmental Policy"	to conserve energy, water, wood, paper and other resources, reduce waste and phase out the use of ozone depleting substances and

	minimise the release of greenhouse gases, volatile organic compounds and other substances damaging to health and the environment, including any written environmental policy of the Buyer;
"Estimated Year 1 Contract Charges"	the anticipated total charges payable by the Supplier in the first Contract Year specified in the Order Form; a)
"Estimated Yearly Charges"	means for the purposes of calculating each Party's annual liability under clause 11.2 : i) in the first Contract Year, the Estimated Year 1 Contract Charges; or ii) in any subsequent Contract Years, the Charges paid or payable in the previous Contract Year; or iii) after the end of the Contract, the Charges paid or payable in the last Contract Year during the Contract Period;
"Equality and Human Rights Commission"	the UK Government body named as such as may be renamed or replaced by an equivalent body from time to time;
"Existing IPR"	any and all IPR that are owned by or licensed to either Party and which are or have been developed independently of the Contract (whether prior to the Start Date or otherwise);
"Expiry Date"	the DPS Expiry Date or the Order Expiry Date (as the context dictates);
"Extension Period"	the DPS Optional Extension Period or the Order Optional Extension Period as the context dictates;
"Filter Categories"	the number of categories specified in DPS Schedule 1 (Specification), if applicable;

"FOIA"	the Freedom of Information Act 2000 and any subordinate legislation made under that 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;
"Force Majeure Event"	any event, occurrence, circumstance, matter or cause affecting the performance by either the Relevant Authority or the Supplier of its obligations arising from: <ul style="list-style-type: none"> a) acts, events, omissions, happenings or non-happenings beyond the reasonable control of the Affected Party which prevent or materially delay the Affected Party from performing its obligations under a Contract; b) riots, civil commotion, war or armed conflict, acts of terrorism, nuclear, biological or chemical warfare;

	<ul style="list-style-type: none"> c) acts of a Crown Body, local government or regulatory bodies; d) fire, flood or any disaster; or e) an industrial dispute affecting a third party for which a substitute third party is not reasonably available but excluding: <ul style="list-style-type: none"> i) any industrial dispute relating to the Supplier, the Supplier Staff (including any subsets of them) or any other failure in the Supplier or the Subcontractor's supply chain; ii) any event, occurrence, circumstance, matter or cause which is attributable to the wilful act, neglect or failure to take reasonable precautions against it by the Party concerned; and any failure of delay caused by a lack of funds;
"Force Majeure Notice"	a written notice served by the Affected Party on the other Party stating that the Affected Party believes that there is a Force Majeure Event;
"GDPR"	i) the General Data Protection Regulation (Regulation (EU) 2016/679);
"General Anti-Abuse Rule"	b) the legislation in Part 5 of the Finance Act 2013; and any future legislation introduced into parliament to counteract tax advantages arising from abusive arrangements to avoid National Insurance contributions;
"General Change in Law"	a Change in Law where the change is of a general legislative nature (including taxation or duties of any sort affecting the Supplier) or which affects or relates to a Comparable Supply;
"Goods"	a) goods made available by the Supplier as specified in DPS Schedule 1 (Specification) and in relation to an Order Contract as specified in the Order Form;

"Good Industry Practice"	standards, practices, methods and procedures conforming to the Law and the exercise of the degree of skill and care, diligence, prudence and foresight which would reasonably and ordinarily be expected from a skilled and experienced person or body engaged within the relevant industry or business sector;
"Government"	the government of the United Kingdom (including the Northern Ireland Assembly and Executive Committee, the Scottish Government and the National Assembly for Wales), including government ministers and government departments and other bodies, persons, commissions or agencies from time to time carrying out functions on its behalf;
"Government Data"	the data, text, drawings, diagrams, images or sounds (together with any database made up of any of these) which are embodied in any electronic, magnetic, optical or tangible media, including any of the Authority's Confidential Information, and which: i) are supplied to the Supplier by or on behalf of the Authority; or

	the Supplier is required to generate, process, store or transmit pursuant to a Contract;
"Government Procurement Card"	the Government's preferred method of purchasing and payment for low value goods or services https://www.gov.uk/government/publications/governmentprocurement-card--2 ;
"Guarantor"	i) the person (if any) who has entered into a guarantee in the form set out in Joint Schedule 8 (Guarantee) in relation to this Contract;
"Halifax Abuse Principle"	the principle explained in the CJEU Case C-255/02 Halifax and others;
"HMRC"	Her Majesty's Revenue and Customs;
"ICT Policy"	the Buyer's policy in respect of information and communications technology, referred to in the Order Form, which is in force as at the Order Start Date (a copy of which has been supplied to the Supplier), as updated from time to time in accordance with the Variation Procedure;

"Impact Assessment"	<p>an assessment of the impact of a Variation request by the Relevant Authority completed in good faith, including:</p> <ul style="list-style-type: none"> a) details of the impact of the proposed Variation on the Deliverables and the Supplier's ability to meet its other obligations under the Contract; b) details of the cost of implementing the proposed Variation; c) details of the ongoing costs required by the proposed Variation when implemented, including any increase or decrease in the DPS Pricing/Charges (as applicable), any alteration in the resources and/or expenditure required by either Party and any alteration to the working practices of either Party; d) a timetable for the implementation, together with any proposals for the testing of the Variation; and <p>such other information as the Relevant Authority may reasonably request in (or in response to) the Variation request;</p>
"Implementation Plan"	the plan for provision of the Deliverables set out in Order Schedule 13 (Implementation Plan and Testing) where that Schedule is used or otherwise as agreed between the Supplier and the Buyer;
"Indemnifier"	a) a Party from whom an indemnity is sought under this Contract;
"Independent Control"	where a Controller has provided Personal Data to another Party which is not a Processor or a Joint Controller because the recipient itself determines the purposes and means of Processing but does so separately from the Controller providing it with Personal Data and "Independent Controller" shall be construed accordingly;
"Indexation"	the adjustment of an amount or sum in accordance with DPS Schedule 3 (DPS Pricing) and the relevant Order Form;
"Information"	has the meaning given under section 84 of the Freedom of Information Act 2000;
"Information Commissioner"	the UK's independent authority which deals with ensuring information relating to rights in the public interest and data privacy for individuals is met, whilst promoting openness by public bodies;
"Initial Period"	the initial term of a Contract specified on the Platform or the Order Form, as the context requires;

"Insolvency Event"	<p>a) in respect of a person:</p> <p>b) a proposal is made for a voluntary arrangement within Part I of the Insolvency Act 1986 or of any other composition scheme or arrangement with, or assignment for the benefit of, its creditors; or c) a shareholders' meeting is convened for the purpose of considering a resolution that it be wound up or a resolution for its winding-up is passed (other than as part of, and exclusively for the purpose of, a bona fide reconstruction or amalgamation); or</p> <p>d) a petition is presented for its winding up (which is not dismissed within fourteen (14) Working Days of its service) or an application is made for the appointment of a provisional liquidator or a creditors' meeting is convened pursuant to section 98 of the Insolvency Act 1986; or</p> <p>e) a receiver, administrative receiver or similar officer is appointed over the whole or any part of its business or assets; or</p> <p>f) an application is made either for the appointment of an administrator or for an administration order, an administrator is appointed, or notice of intention to appoint an administrator is given; or</p> <p>g) it is or becomes insolvent within the meaning of section 123 of the Insolvency Act 1986; or</p> <p>h) being a "small company" within the meaning of section 382(3) of the Companies Act 2006, a moratorium comes into force pursuant to Schedule A1 of the Insolvency Act 1986; or</p> <p>i) where the person is an individual or partnership, any event analogous to those listed in limbs (a) to (g) (inclusive) occurs in relation to that individual or partnership; or</p> <p>any event analogous to those listed in limbs (a) to (h) (inclusive) occurs under the law of any other jurisdiction;</p>
"Installation Works"	all works which the Supplier is to carry out at the beginning of the Order Contract Period to install the Goods in accordance with the Order Contract;
"Intellectual Property Rights" or "IPR"	a) copyright, rights related to or affording protection similar to copyright, rights in databases, patents and rights in inventions, semi-conductor topography rights, trade marks, rights in internet domain names and website addresses and other rights in trade or

	<p>business names, goodwill, designs, Know-How, trade secrets and other rights in Confidential Information;</p> <p>b) applications for registration, and the right to apply for registration, for any of the rights listed at (a) that are capable of being registered in any country or jurisdiction; and</p> <p>c) all other rights having equivalent or similar effect in any country or jurisdiction;</p>
"Invoicing Address"	the address to which the Supplier shall Invoice the Buyer as specified in the Order Form;
"IPR Claim"	a) any claim of infringement or alleged infringement (including the defence of such infringement or alleged infringement) of any IPR, used to provide the Deliverables or otherwise provided and/or licensed by the Supplier (or to which the Supplier has provided access) to the Relevant Authority in the fulfilment of its obligations under a Contract;
"IR35"	<p>the off-payroll rules requiring individuals who work through their company pay the same tax and National Insurance contributions as an employee which can be found online at:</p> <p>https://www.gov.uk/guidance/ir35-find-out-if-it-applies;</p>
"Joint Controller Agreement"	the agreement (if any) entered into between the Relevant Authority and the Supplier substantially in the form set out in Annex 2 of Joint Schedule 11 (<i>Processing Data</i>);
"Joint Controllers"	where two or more Controllers jointly determine the purposes and means of Processing;
"Key Personnel"	the individuals (if any) identified as such in the Order Form;
"Key Sub-Contract"	each Sub-Contract with a Key Subcontractor;
"Key Subcontractor"	<p>any Subcontractor:</p> <p>a) which is relied upon to deliver any work package within the Deliverables in their entirety; and/or</p> <p>b) which, in the opinion of CCS or the Buyer performs (or would perform if appointed) a critical role in the provision of all or any part of the Deliverables; and/or</p> <p>c) with a Sub-Contract with a contract value which at the time of appointment exceeds (or would exceed if appointed) 10% of the aggregate Charges forecast to be payable under the Order Contract, and the Supplier shall list all such Key Subcontractors on the Platform and in the Key Subcontractor Section in the Order Form;</p>

"Know-How"	all ideas, concepts, schemes, information, knowledge, techniques, methodology, and anything else in the nature of know-how relating to the Deliverables but excluding know-how already in the other Party's possession before the applicable Start Date;
"Law"	any law, subordinate legislation within the meaning of Section 21(1) of the Interpretation Act 1978, bye-law, enforceable right within the meaning of Section 2 of the European Communities Act 1972, regulation, order, regulatory policy, mandatory guidance or code of practice, judgment of a relevant court of law, or directives or requirements with which the relevant Party is bound to comply;
"LED"	Law Enforcement Directive (Directive (EU) 2016/680);
"Losses"	all losses, liabilities, damages, costs, expenses (including legal fees), disbursements, costs of investigation, litigation, settlement, judgment, interest and penalties whether arising in contract, tort (including negligence), breach of statutory duty, misrepresentation or otherwise and "Loss" shall be interpreted accordingly;
"Man Day"	7.5 Man Hours, whether or not such hours are worked consecutively and whether or not they are worked on the same day;
"Man Hours"	the hours spent by the Supplier Staff properly working on the provision of the Deliverables including time spent travelling (other than to and from the Supplier's offices, or to and from the Sites) but excluding lunch breaks;
"Management Information"	the management information specified in DPS Schedule 5 (Management Levy and Information);
"Management Levy"	the sum specified on the Platform payable by the Supplier to CCS in accordance with DPS Schedule 5 (Management Levy and Information);
"Marketing Contact"	shall be the person identified in the DPS Appointment Form;
"MI Default"	means when two (2) MI Reports are not provided in any rolling six (6) month period;
"MI Failure"	means when an MI report: <ul style="list-style-type: none"> a) contains any material errors or material omissions or a missing mandatory field; or b) is submitted using an incorrect MI reporting Template; or is not submitted by the reporting date (including where a declaration of no business should have been filed);
"MI Report"	means a report containing Management Information submitted to the Authority in accordance with DPS Schedule 5 (Management Levy and Information);

"MI Reporting Template"	a) means the form of report set out in the Annex to DPS Schedule 5 (Management Levy and Information) setting out the information the Supplier is required to supply to the Authority;
"Milestone"	an event or task described in the Mobilisation Plan;
"Milestone Date"	the target date set out against the relevant Milestone in the Mobilisation Plan by which the Milestone must be Achieved;

"Month"	a calendar month and "Monthly" shall be interpreted accordingly;
"National Insurance"	contributions required by the National Insurance Contributions Regulations 2012 (SI 2012/1868) made under section 132A of the Social Security Administration Act 1992;
"New IPR"	<p>a) IPR in items created by the Supplier (or by a third party on behalf of the Supplier) specifically for the purposes of a Contract and updates and amendments of these items including (but not limited to) database schema; and/or</p> <p>b) IPR in or arising as a result of the performance of the Supplier's obligations under a Contract and all updates and amendments to the same; but shall not include the Supplier's Existing IPR;</p>
"Occasion of Tax Non – Compliance"	<p>where:</p> <p>a) any tax return of the Supplier submitted to a Relevant Tax Authority on or after 1 October 2012 which is found on or after 1 April 2013 to be incorrect as a result of:</p> <p>i) a Relevant Tax Authority successfully challenging the Supplier under the General Anti-Abuse Rule or the Halifax Abuse Principle or under any tax rules or legislation in any jurisdiction that have an effect equivalent or similar to the General Anti-Abuse Rule or the Halifax Abuse Principle; ii) the failure of an avoidance scheme which the Supplier was involved in, and which was, or should have been, notified to a Relevant Tax Authority under the DOTAS or any equivalent or similar regime in any jurisdiction; and/or</p> <p>any tax return of the Supplier submitted to a Relevant Tax Authority on or after 1 October 2012 which gives rise, on or after 1 April 2013, to a criminal conviction in any jurisdiction for tax related offences which is not spent at the Start Date or to a civil penalty for fraud or evasion;</p>

"Open Book Data"	<p>complete and accurate financial and non-financial information which is sufficient to enable the Buyer to verify the Charges already paid or payable and Charges forecast to be paid during the remainder of the Order Contract, including details and all assumptions relating to:</p> <ul style="list-style-type: none"> a) the Supplier's Costs broken down against each Good and/or Service and/or Deliverable, including actual capital expenditure (including capital replacement costs) and the unit cost and total actual costs of all Deliverables; b) operating expenditure relating to the provision of the Deliverables including an analysis showing: <ul style="list-style-type: none"> i) the unit costs and quantity of Goods and any other consumables and bought-in Deliverables; ii) manpower resources broken down into the number and grade/role of all Supplier Staff (free of any contingency)
	<p>together with a list of agreed rates against each manpower grade;</p> <ul style="list-style-type: none"> iii) a list of Costs underpinning those rates for each manpower grade, being the agreed rate less the Supplier Profit Margin; and iv) Reimbursable Expenses, if allowed under the Order Form; c) Overheads; d) all interest, expenses and any other third party financing costs incurred in relation to the provision of the Deliverables; e) the Supplier Profit achieved over the DPS Contract Period and on an annual basis; f) confirmation that all methods of Cost apportionment and Overhead allocation are consistent with and not more onerous than such methods applied generally by the Supplier; g) an explanation of the type and value of risk and contingencies associated with the provision of the Deliverables, including the amount of money attributed to each risk and/or contingency; and <p>the actual Costs profile for each Service Period;</p>
"Order"	a) means an order for the provision of the Deliverables placed by a Buyer with the Supplier under a Contract;
"Order Contract"	b) the contract between the Buyer and the Supplier (entered into pursuant to the provisions of the DPS Contract), which consists of the terms set out and referred to in the Order Form;
"Order Contract Period"	the Contract Period in respect of the Order Contract;

"Order Expiry Date"	the date of the end of an Order Contract as stated in the Order Form;
"Order Form"	a completed Order Form Template (or equivalent information issued by the Buyer) used to create an Order Contract;
"Order Form Template"	the template in DPS Schedule 6 (Order Form Template and Order Schedules);
"Order Incorporated Terms"	the contractual terms applicable to the Order Contract specified under the relevant heading in the Order Form;
"Order Initial Period"	the Initial Period of an Order Contract specified in the Order Form;
"Order Optional Extension Period"	such period or periods beyond which the Order Initial Period may be extended up to a maximum of the number of years in total specified in the Order Form;
"Order Procedure"	the process for awarding an Order Contract pursuant to Clause 2 (How the contract works) and DPS Schedule 7 (Order Procedure);

"Order Special Terms"	any additional terms and conditions specified in the Order Form incorporated into the applicable Order Contract;
"Order Start Date"	the date of start of an Order Contract as stated in the Order Form;
"Order Tender"	the tender submitted by the Supplier in response to the Buyer's Statement of Requirements following an Order Procedure and set out at Order Schedule 4 (Order Tender);
"Other Contracting Authority"	any actual or potential Buyer under the DPS Contract;
"Overhead"	those amounts which are intended to recover a proportion of the Supplier's or the Key Subcontractor's (as the context requires) indirect corporate costs (including financing, marketing, advertising, research and development and insurance costs and any fines or penalties) but excluding allowable indirect costs apportioned to facilities and administration in the provision of Supplier Staff and accordingly included within limb (a) of the definition of "Costs";
"Parliament"	takes its natural meaning as interpreted by Law;
"Party"	in the context of the DPS Contract, CCS or the Supplier, and in the in the context of an Order Contract the Buyer or the Supplier. "Parties" shall mean both of them where the context permits;
"Performance Indicators" or "PIs"	the performance measurements and targets in respect of the Supplier's performance of the DPS Contract set out in DPS Schedule 4 (DPS Management);

"Personal Data"	has the meaning given to it in the GDPR;
"Personal Data Breach"	has the meaning given to it in the GDPR;
"Personnel"	all directors, officers, employees, agents, consultants and suppliers of a Party and/or of any Subcontractor and/or Subprocessor engaged in the performance of its obligations under a Contract;
"Platform"	the online application operated on behalf of CCS to facilitate the technical operation of the DPS;
"Prescribed Person"	a legal adviser, an MP or an appropriate body which a whistle-blower may make a disclosure to as detailed in 'Whistleblowing: list of prescribed people and bodies', 24 November 2016, available online at: https://www.gov.uk/government/publications/blowing-the-whistle-list-of-prescribed-people-and-bodies--2/whistleblowing-list-of-prescribed-people-and-bodies ;
"Processing"	has the meaning given to it in the GDPR;
"Processor"	has the meaning given to it in the GDPR;

"Processor Personnel"	all directors, officers, employees, agents, consultants and suppliers of the Processor and/or of any Subprocessor engaged in the performance of its obligations under a Contract;
"Progress Meeting"	a meeting between the Buyer Authorised Representative and the Supplier Authorised Representative;
"Progress Meeting Frequency"	the frequency at which the Supplier shall conduct a Progress Meeting in accordance with Clause 6.1 as specified in the Order Form;
"Progress Report"	a report provided by the Supplier indicating the steps taken to achieve Milestones or delivery dates;
"Progress Report Frequency"	the frequency at which the Supplier shall deliver Progress Reports in accordance with Clause 6.1 as specified in the Order Form;

“Prohibited Acts”	<p>a) to directly or indirectly offer, promise or give any person working for or engaged by a Buyer or any other public body a financial or other advantage to:</p> <ul style="list-style-type: none"> i) induce that person to perform improperly a relevant function or activity; or ii) reward that person for improper performance of a relevant function or activity; <p>b) to directly or indirectly request, agree to receive or accept any financial or other advantage as an inducement or a reward for improper performance of a relevant function or activity in connection with each Contract; or</p> <p>c) committing any offence:</p> <ul style="list-style-type: none"> i) under the Bribery Act 2010 (or any legislation repealed or revoked by such Act); or ii) under legislation or common law concerning fraudulent acts; or iii) defrauding, attempting to defraud or conspiring to defraud a <p>Buyer or other public body; or any activity, practice or conduct which would constitute one of the offences listed under (c) above if such activity, practice or conduct had been carried out in the UK;</p>
“Protective Measures”	<p>appropriate technical and organisational measures which may include pseudonymising and encrypting Personal Data, ensuring confidentiality, integrity, availability and resilience of systems and services, ensuring that availability of and access to Personal Data can be restored in a timely manner after an incident, and regularly assessing and evaluating the effectiveness of the such measures adopted by it including those outlined in DPS Schedule 9 (Cyber Essentials), if applicable, in the case of the DPS Contract or Order Schedule 9 (Security), if applicable, in the case of an Order Contract;</p>
“Recall”	<p>a) a request by the Supplier to return Goods to the Supplier or the manufacturer after the discovery of safety issues or defects (including defects in the right IPR rights) that might endanger health or hinder performance;</p>
"Recipient Party"	<p>the Party which receives or obtains directly or indirectly Confidential Information;</p>

"Rectification Plan"	<p>the Supplier's plan (or revised plan) to rectify its breach using the template in Joint Schedule 10 (Rectification Plan Template) which shall include:</p> <ul style="list-style-type: none"> a) full details of the Default that has occurred, including a root cause analysis; b) the actual or anticipated effect of the Default; and <p>the steps which the Supplier proposes to take to rectify the Default (if applicable) and to prevent such Default from recurring, including timescales for such steps and for the rectification of the Default (where applicable);</p>
"Rectification Plan Process"	the process set out in Clause 10.4.3 to 10.4.5 (Rectification Plan Process);
"Regulations"	a) the Public Contracts Regulations 2015 and/or the Public Contracts (Scotland) Regulations 2015 (as the context requires);
"Reimbursable Expenses"	<p>the reasonable out of pocket travel and subsistence (for example, hotel and food) expenses, properly and necessarily incurred in the performance of the Services, calculated at the rates and in accordance with the Buyer's expenses policy current from time to time, but not including:</p> <ul style="list-style-type: none"> a) travel expenses incurred as a result of Supplier Staff travelling to and from their usual place of work, or to and from the premises at which the Services are principally to be performed, unless the Buyer otherwise agrees in advance in writing; and <p>subsistence expenses incurred by Supplier Staff whilst performing the Services at their usual place of work, or to and from the premises at which the Services are principally to be performed;</p>
"Relevant Authority"	the Authority which is party to the Contract to which a right or obligation is owed, as the context requires;
"Relevant Authority's Confidential Information"	<ul style="list-style-type: none"> a) all Personal Data and any information, however it is conveyed, that relates to the business, affairs, developments, property rights, trade secrets, Know-How and IPR of the Relevant Authority (including all Relevant Authority Existing IPR and Deliverables IPR); b) any other information clearly designated as being confidential (whether or not it is marked "confidential") or which ought reasonably be considered confidential which comes (or has come) to the Relevant Authority's attention or into the Relevant Authority's possession in connection with a Contract; and c) information derived from any of the above;

"Relevant Requirements"	all applicable Law relating to bribery, corruption and fraud, including the Bribery Act 2010 and any guidance issued by the Secretary of State pursuant to section 9 of the Bribery Act 2010;
"Relevant Tax Authority"	HMRC, or, if applicable, the tax authority in the jurisdiction in which the Supplier is established;
"Reminder Notice"	a notice sent in accordance with Clause 10.6 given by the Supplier to the Buyer providing notification that payment has not been received on time;
"Replacement Deliverables"	any deliverables which are substantially similar to any of the Deliverables and which the Buyer receives in substitution for any of the Deliverables following the Order Expiry Date, whether those goods are provided by the Buyer internally and/or by any third party;
"Replacement Subcontractor"	a Subcontractor of the Replacement Supplier to whom Transferring Supplier Employees will transfer on a Service Transfer Date (or any Subcontractor of any such Subcontractor);
"Replacement Supplier"	any third party provider of Replacement Deliverables appointed by or at the direction of the Buyer from time to time or where the Buyer is providing Replacement Deliverables for its own account, shall also include the Buyer;
"Request For Information"	a request for information or an apparent request relating to a Contract for the provision of the Deliverables or an apparent request for such information under the FOIA or the EIRs;
"Required Insurances"	the insurances required by Joint Schedule 3 (Insurance Requirements) or any additional insurances specified in the Order Form;
"Satisfaction Certificate"	the certificate (materially in the form of the document contained in Part B of Order Schedule 13 (Implementation Plan and Testing) or as agreed by the Parties where Order Schedule 13 is not used in this Contract) granted by the Buyer when the Supplier has met all of the requirements of an Order, Achieved a Milestone or a Test;
"Schedules"	any attachment to a DPS or Order Contract which contains important information specific to each aspect of buying and selling;
"Security Management Plan"	the Supplier's security management plan prepared pursuant to Order Schedule 9 (Security) (if applicable);
"Security Policy"	the Buyer's security policy, referred to in the Order Form, in force as at the Order Start Date (a copy of which has been supplied to the Supplier), as updated from time to time and notified to the Supplier;
"Self Audit Certificate"	means the certificate in the form as set out in DPS Schedule 8 (Self Audit Certificate);

"Serious Fraud Office"	the UK Government body named as such as may be renamed or replaced by an equivalent body from time to time;
"Service Levels"	any service levels applicable to the provision of the Deliverables under the Order Contract (which, where Order Schedule 14 (Service Credits) is used in this Contract, are specified in the Annex to Part A of such Schedule);
"Service Period"	has the meaning given to it in the Order Form;
"Services"	services made available by the Supplier as specified in DPS Schedule 1 (Specification) and in relation to an Order Contract as specified in the Order Form;
"Service Transfer"	any transfer of the Deliverables (or any part of the Deliverables), for whatever reason, from the Supplier or any Subcontractor to a Replacement Supplier or a Replacement Subcontractor;
"Service Transfer Date"	the date of a Service Transfer;
"Sites"	any premises (including the Buyer Premises, the Supplier's premises or third party premises) from, to or at which: a) the Deliverables are (or are to be) provided; or the Supplier manages, organises or otherwise directs the provision or the use of the Deliverables;
"SME"	an enterprise falling within the category of micro, small and medium sized enterprises defined by the Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium enterprises;
"Special Terms"	a) any additional Clauses set out in the DPS Appointment Form or Order Form which shall form part of the respective Contract;
"Specific Change in Law"	a Change in Law that relates specifically to the business of the Buyer and which would not affect a Comparable Supply where the effect of that Specific Change in Law on the Deliverables is not reasonably foreseeable at the Start Date;
"Specification"	the specification set out in DPS Schedule 1 (Specification), as may, in relation to an Order Contract, be supplemented by the Order Form;

"Standards"	<p>any:</p> <p>a) standards published by BSI British Standards, the National Standards Body of the United Kingdom, the International Organisation for Standardisation or other reputable or equivalent bodies (and their successor bodies) that a skilled and experienced operator in the same type of industry or business sector as the Supplier would reasonably and ordinarily be expected to comply with;</p> <p>b) standards detailed in the specification in DPS Schedule 1 (Specification);</p>
	<p>c) standards detailed by the Buyer in the Order Form or agreed between the Parties from time to time;</p> <p>relevant Government codes of practice and guidance applicable from time to time;</p>
"Start Date"	in the case of the DPS Contract, the date specified on the DPS Appointment Form, and in the case of an Order Contract, the date specified in the Order Form;
"Statement of Requirements"	a) a statement issued by the Buyer detailing its requirements in respect of Deliverables issued in accordance with the Order Procedure;
"Storage Media"	the part of any device that is capable of storing and retrieving data;
"Sub-Contract"	<p>any contract or agreement (or proposed contract or agreement), other than an Order Contract or the DPS Contract, pursuant to which a third party:</p> <p>a) provides the Deliverables (or any part of them);</p> <p>b) provides facilities or services necessary for the provision of the Deliverables (or any part of them); and/or is responsible for the management, direction or control of the provision of the Deliverables (or any part of them);</p>
"Subcontractor"	any person other than the Supplier, who is a party to a Sub-Contract and the servants or agents of that person;
"Subprocessor"	a) any third party appointed to process Personal Data on behalf of that Processor related to a Contract;
"Supplier"	the person, firm or company identified in the DPS Appointment Form;
"Supplier Assets"	all assets and rights used by the Supplier to provide the Deliverables in accordance with the Order Contract but excluding the Buyer Assets;
"Supplier Authorised Representative"	the representative appointed by the Supplier named in the DPS Appointment Form, or later defined in an Order Contract;

"Supplier's Confidential Information"	<p>a) any information, however it is conveyed, that relates to the business, affairs, developments, IPR of the Supplier (including the Supplier Existing IPR) trade secrets, Know-How, and/or personnel of the Supplier;</p> <p>b) any other information clearly designated as being confidential (whether or not it is marked as "confidential") or which ought reasonably to be considered to be confidential and which comes (or has come) to the Supplier's attention or into the Supplier's possession in connection with a Contract;</p> <p>Information derived from any of (a) and (b) above;</p>
"Supplier's Contract Manager"	the person identified in the Order Form appointed by the Supplier to oversee the operation of the Order Contract and any alternative person whom the Supplier intends to appoint to the role, provided that the Supplier informs the Buyer prior to the appointment;
"Supplier Equipment"	a) the Supplier's hardware, computer and telecoms devices, equipment, plant, materials and such other items supplied and used by the Supplier (but not hired, leased or loaned from the Buyer) in the performance of its obligations under this Order Contract;
"Supplier Non-Performance"	<p>where the Supplier has failed to:</p> <p>a) Achieve a Milestone by its Milestone Date;</p> <p>b) provide the Goods and/or Services in accordance with the Service Levels ; and/or comply with an obligation under a Contract;</p>
"Supplier Profit"	in relation to a period, the difference between the total Charges (in nominal cash flow terms but excluding any Deductions and total Costs (in nominal cash flow terms) in respect of an Order Contract for the relevant period;
"Supplier Profit Margin"	a) in relation to a period or a Milestone (as the context requires), the Supplier Profit for the relevant period or in relation to the relevant Milestone divided by the total Charges over the same period or in relation to the relevant Milestone and expressed as a percentage;
"Supplier Staff"	all directors, officers, employees, agents, consultants and contractors of the Supplier and/or of any Subcontractor engaged in the performance of the Supplier's obligations under a Contract;
"Supply Chain Information Report Template"	the document at Annex 1 of Joint Schedule 12 (Supply Chain Visibility);

"Supporting Documentation"	sufficient information in writing to enable the Buyer to reasonably assess whether the Charges, Reimbursable Expenses and other sums due from the Buyer under the Order Contract detailed in the information are properly payable;
"Termination Notice"	a written notice of termination given by one Party to the other, notifying the Party receiving the notice of the intention of the Party giving the notice to terminate a Contract on a specified date and setting out the grounds for termination;
"Test Issue"	any variance or non-conformity of the Deliverables or Deliverables from their requirements as set out in an Order Contract;
"Test Plan"	a plan: a) for the Testing of the Deliverables; and setting out other agreed criteria related to the achievement of Milestones;
"Tests and Testing"	any tests required to be carried out pursuant to an Order Contract as set out in the Test Plan or elsewhere in an Order Contract and "Tested" shall be construed accordingly;
"Third Party IPR"	a) Intellectual Property Rights owned by a third party which is or will be used by the Supplier for the purpose of providing the Deliverables;
"Transferring Supplier Employees"	those employees of the Supplier and/or the Supplier's Subcontractors to whom the Employment Regulations will apply on the Service Transfer Date;
"Transparency Information"	the Transparency Reports and the content of a Contract, including any changes to this Contract agreed from time to time, except for – (i) any information which is exempt from disclosure in accordance with the provisions of the FOIA, which shall be determined by the Relevant Authority; and (ii) Commercially Sensitive Information;
"Transparency Reports"	the information relating to the Deliverables and performance of the Contracts which the Supplier is required to provide to the Buyer in accordance with the reporting requirements in Order Schedule 1 (Transparency Reports);
"Variation"	has the meaning given to it in Clause 24 (Changing the contract);
"Variation Form"	the form set out in Joint Schedule 2 (Variation Form);
"Variation Procedure"	the procedure set out in Clause 24 (Changing the contract);
"VAT"	value added tax in accordance with the provisions of the Value Added Tax Act 1994;

"VCSE"	a non-governmental organisation that is value-driven and which principally reinvests its surpluses to further social, environmental or cultural objectives;
"Worker"	any one of the Supplier Staff which the Buyer, in its reasonable opinion, considers is an individual to which Procurement Policy Note 08/15 (Tax Arrangements of Public Appointees) (https://www.gov.uk/government/publications/procurement-policy-note-0815-tax-arrangements-of-appointees) applies in respect of the Deliverables; and
"Working Day"	any day other than a Saturday or Sunday or public holiday in England and Wales unless specified otherwise by the Parties in the Order Form.

Joint Schedule 2 (Variation Form)

This form is to be used in order to change a contract in accordance with Clause 24 (Changing the Contract)

Contract Details		
This variation is between:	Department for Science Innovation and Technology (DSIT) Buyer “the Buyer” And [SUPPLIER NAME] (“the Supplier”)	
Contract name:	Spectrum Sandbox (“the Contract”)	
Contract reference number:	[insert contract reference number]	
Details of Proposed Variation		
Variation initiated by:	Buyer/Supplier	
Variation number:	[insert variation number]	
Date variation is raised:	[insert date]	
Proposed variation		
Reason for the variation:	[insert reason]	
An Impact Assessment shall be provided within:	[insert number] days	
Impact of Variation		
Likely impact of the proposed variation:	[Supplier to insert assessment of impact]	
Outcome of Variation		
Contract variation:	This Contract detailed above is varied as follows: <ul style="list-style-type: none">Buyer to insert original Clauses or Paragraphs to be varied and the changed clause]	
Financial variation:	Original Contract Value:	£ [insert amount]
	Additional cost due to variation:	£ [insert amount]
	New Contract value:	£ [insert amount]

1. This Variation must be agreed and signed by both Parties to the Contract and shall only be effective from the date it is signed by Buyer
2. Words and expressions in this Variation shall have the meanings given to them in the Contract.
3. The Contract, including any previous Variations, shall remain effective and unaltered except as amended by this Variation.

Signed by an authorised signatory for and on behalf of the Buyer

Signature

Date

Name (in Capitals)

Address

Signed by an authorised signatory to sign for and on behalf of the Supplier

Signature

Date

Name (in Capitals)

Address

Joint Schedule 3 (Insurance Requirements)

The insurance you need to have

- 1.1 The Supplier shall take out and maintain or procure the taking out and maintenance of the insurances as set out in the Annex to this Schedule, any additional insurances required under an Order Contract (specified in the applicable Order Form) ("**Additional Insurances**") and any other insurances as may be required by applicable Law (together the "**Insurances**"). The Supplier shall ensure that each of the Insurances is effective no later than:
 - 1.1.1 the DPS Start Date in respect of those Insurances set out in the Annex to this Schedule and those required by applicable Law; and
 - 1.1.2 the Order Contract Effective Date in respect of the Additional Insurances.
- 1.2 The Insurances shall be:
 - 1.2.1 maintained in accordance with Good Industry Practice;
 - 1.2.2 (so far as is reasonably practicable) on terms no less favourable than those generally available to a prudent contractor in respect of risks insured in the international insurance market from time to time;
 - 1.2.3 taken out and maintained with insurers of good financial standing and good repute in the international insurance market; and
 - 1.2.4 maintained for at least six (6) years after the End Date.
- 1.3 The Supplier shall ensure that the public and products liability policy contain an indemnity to principals clause under which the Relevant Authority shall be indemnified in respect of claims made against the Relevant Authority in respect of death or bodily injury or third party property damage arising out of or in connection with the Deliverables and for which the Supplier is legally liable.

How to manage the insurance

- 2.1 Without limiting the other provisions of this Contract, the Supplier shall:
 - 2.1.1 take or procure the taking of all reasonable risk management and risk control measures in relation to Deliverables as it would be reasonable to expect of a prudent contractor acting in accordance with Good Industry Practice, including the investigation and reports of relevant claims to insurers;
 - 2.1.2 promptly notify the insurers in writing of any relevant material fact under any Insurances of which the Supplier is or becomes aware; and
 - 2.1.3 hold all policies in respect of the Insurances and cause any insurance broker effecting the Insurances to hold any insurance slips and other evidence of placing cover representing any of the Insurances to which it is a party.

What happens if you aren't insured

- 3.1 The Supplier shall not take any action or fail to take any action or (insofar as is reasonably within its power) permit anything to occur in relation to it which would entitle any insurer to refuse to pay any claim under any of the Insurances.
- 3.2 Where the Supplier has failed to purchase or maintain any of the Insurances in full force and effect, the Relevant Authority may elect (but shall not be obliged) following written notice to the Supplier to purchase the relevant Insurances and recover the reasonable premium and other reasonable costs incurred in connection therewith as a debt due from the Supplier.

Evidence of insurance you must provide

- 4.1 The Supplier shall upon the Start Date and within 15 Working Days after the renewal of each of the Insurances, provide evidence, in a form satisfactory to the Relevant Authority, that the Insurances are in force and effect and meet in full the requirements of this Schedule.

Making sure you are insured to the required amount

- 5.1 The Supplier shall ensure that any Insurances which are stated to have a minimum limit "in the aggregate" are maintained at all times for the minimum limit of indemnity specified in this Contract and if any claims are made which do not relate to this Contract then the Supplier shall notify the Relevant Authority and provide details of its proposed solution for maintaining the minimum limit of indemnity.

Cancelled Insurance

- 6.1 The Supplier shall notify the Relevant Authority in writing at least five (5) Working Days prior to the cancellation, suspension, termination or nonrenewal of any of the Insurances.
- 6.2 The Supplier shall ensure that nothing is done which would entitle the relevant insurer to cancel, rescind or suspend any insurance or cover, or to treat any insurance, cover or claim as voided in whole or part. The Supplier shall use all reasonable endeavours to notify the Relevant Authority (subject to third party confidentiality obligations) as soon as practicable when it becomes aware of any relevant fact, circumstance or matter which has caused, or is reasonably likely to provide grounds to, the relevant insurer to give notice to cancel, rescind, suspend or void any insurance, or any cover or claim under any insurance in whole or in part.

Insurance claims

- 7.1 The Supplier shall promptly notify to insurers any matter arising from, or in relation to, the Deliverables, or each Contract for which it may be entitled to claim under any of the Insurances. In the event that the Relevant Authority receives a claim relating to or arising out of a Contract or the Deliverables, the Supplier shall co-operate with the Relevant Authority and assist it in dealing with such claims including without limitation providing information and documentation in a timely manner.

- 7.2 Except where the Relevant Authority is the claimant party, the Supplier shall give the Relevant Authority notice within twenty (20) Working Days after any insurance claim in excess of 10% of the sum required to be insured pursuant to Paragraph 5.1 relating to or arising out of the provision of the Deliverables or this Contract on any of the Insurances or which, but for the application of the applicable policy excess, would be made on any of the Insurances and (if required by the Relevant Authority) full details of the incident giving rise to the claim.
- 7.3 Where any Insurance requires payment of a premium, the Supplier shall be liable for and shall promptly pay such premium.
- 7.4 Where any Insurance is subject to an excess or deductible below which the indemnity from insurers is excluded, the Supplier shall be liable for such excess or deductible. The Supplier shall not be entitled to recover from the Relevant Authority any sum paid by way of excess or deductible under the Insurances whether under the terms of this Contract or otherwise.

ANNEX: REQUIRED INSURANCES

1. The Supplier shall hold the following [standard] insurance cover from the DPS Start Date in accordance with this Schedule:
 - 1.1 professional indemnity insurance [with cover (for a single event or a series of related events and in the aggregate) of not less than] one million pounds (£1,000,000);
 - 1.2 public liability insurance [with cover (for a single event or a series of related events and in the aggregate)] of not less than one million pounds (£1,000,000); and
 - 1.3 employers' liability insurance [with cover (for a single event or a series of related events and in the aggregate) of not less than] five million pounds (£5,000,000).

Joint Schedule 4

(Commercially Sensitive Information)

What is the Commercially Sensitive Information?

In this Schedule the Parties have sought to identify the Supplier's Confidential Information that is genuinely commercially sensitive and the disclosure of which would be the subject of an exemption under the FOIA and the EIRs.

Where possible, the Parties have sought to identify when any relevant Information will cease to fall into the category of Information to which this Schedule applies in the table below and in the Order Form (which shall be deemed incorporated into the table below).

Without prejudice to the Relevant Authority's obligation to disclose Information in accordance with FOIA or Clause 16 (When you can share information), the Relevant Authority will, in its sole discretion, acting reasonably, seek to apply the relevant exemption set out in the FOIA to the following Information:

Supplier has confirmed there is no commercially sensitive information.

Joint Schedule 5

(Corporate Social Responsibility)

What we expect from our Suppliers

- 1.1 In September 2017, HM Government published a Supplier Code of Conduct setting out the standards and behaviours expected of suppliers who work with government.
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/646497/2017-09-13_Official_Sensitive_Supplier_Code_of_Conduct_September_2017.pdf
- 1.2 CCS expects its suppliers and subcontractors to meet the standards set out in that Code. In addition, CCS expects its suppliers and subcontractors to comply with the standards set out in this Schedule.
- 1.3 The Supplier acknowledges that the Buyer may have additional requirements in relation to corporate social responsibility. The Buyer expects that the Supplier and its Subcontractors will comply with such corporate social responsibility requirements as the Buyer may notify to the Supplier from time to time.

Equality and Accessibility

- 2.1 In addition to legal obligations, the Supplier shall support CCS and the Buyer in fulfilling its Public Sector Equality duty under S149 of the Equality Act 2010 by ensuring that it fulfils its obligations under each Contract in a way that seeks to:
 - 2.1.1 eliminate discrimination, harassment or victimisation of any kind; and
 - 2.1.2 advance equality of opportunity and good relations between those with a protected characteristic (age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, sex, sexual orientation, and marriage and civil partnership) and those who do not share it.

Modern Slavery, Child Labour and Inhumane Treatment

"Modern Slavery Helpline" means the mechanism 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.

- 3.1 The Supplier:
 - 3.1.1 shall not use, nor allow its Subcontractors to use forced, bonded or involuntary prison labour;
 - 3.1.2 shall not require any Supplier Staff or Subcontractor Staff to lodge deposits or identify papers with the Employer and shall be free to leave their employer after reasonable notice;
 - 3.1.3 warrants and represents that it has not been convicted of any slavery or human trafficking offences anywhere around the world.

- 3.1.4 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 offences anywhere around the world.
- 3.1.5 shall make reasonable enquires to ensure that its officers, employees and Subcontractors have not been convicted of slavery or human trafficking offences anywhere around the world.
- 3.1.6 shall have and maintain throughout the term of each Contract its own policies and procedures to ensure its compliance with the Modern Slavery Act and include in its contracts with its Subcontractors anti-slavery and human trafficking provisions;
- 3.1.7 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;
- 3.1.8 shall prepare and deliver to CCS, an annual slavery and human trafficking report setting out the steps it has taken to ensure that slavery and human trafficking is not taking place in any of its supply chains or in any part of its business with its annual certification of compliance with Paragraph 3;
- 3.1.9 shall not use, nor 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;
- 3.1.10 shall not use or allow child or slave labour to be used by its Subcontractors;
- 3.1.11 shall report the discovery or suspicion of any slavery or trafficking by it or its Subcontractors to CCS, the Buyer and Modern Slavery Helpline.

Income Security

4.1 The Supplier shall:

- 4.1.1 ensure that all wages and benefits paid for a standard working week meet, at a minimum, national legal standards in the country of employment;
- 4.1.2 ensure that all Supplier Staff are provided with written and understandable Information about their employment conditions in respect of wages before they enter;
- 4.1.3 ensure that all workers are provided with written and understandable Information about their employment conditions in respect of wages before they enter employment and about the particulars of their wages for the pay period concerned each time that they are paid;
- 4.1.4 not make deductions from wages:
 - (a) as a disciplinary measure
 - (b) except where permitted by law; or
 - (c) without expressed permission of the worker concerned;

4.1.5 record all disciplinary measures taken against Supplier Staff; and

4.1.6 ensure that Supplier Staff are engaged under a recognised employment relationship established through national law and practice.

Working Hours

5.1 The Supplier shall:

5.1.1 ensure that the working hours of Supplier Staff comply with national laws, and any collective agreements;

5.1.2 ensure that the working hours of Supplier Staff, excluding overtime, shall be defined by contract, and shall not exceed 48 hours per week unless the individual has agreed in writing;

5.1.3 ensure that use of overtime is used responsibly, taking into account:

- (a) the extent;
- (b) frequency; and
- (c) hours worked;

by individuals and by the Supplier Staff as a whole;

5.2 The total hours worked in any seven day period shall not exceed 60 hours, except where covered by Paragraph 5.3 below.

5.3 Working hours may exceed 60 hours in any seven day period only in exceptional circumstances where all of the following are met:

5.3.1 this is allowed by national law;

5.3.2 this is allowed by a collective agreement freely negotiated with a workers' organisation representing a significant portion of the workforce;

5.3.3 appropriate safeguards are taken to protect the workers' health and safety; and

5.3.4 the employer can demonstrate that exceptional circumstances apply such as unexpected production peaks, accidents or emergencies.

5.4 All Supplier Staff shall be provided with at least one (1) day off in every seven (7) day period or, where allowed by national law, two (2) days off in every fourteen (14) day period.

Sustainability

6.1 The supplier shall meet the applicable Government Buying Standards applicable to Deliverables which can be found online at:

<https://www.gov.uk/government/collections/sustainable-procurement-thegovernment-buying-standards-gbs>

Joint Schedule 6 (Key Subcontractors)

1. Restrictions on certain subcontractors

- 1.1 The Supplier is entitled to sub-contract its obligations under the DPS Contract to the Key Subcontractors identified on the Platform.
- 1.2 The Supplier is entitled to sub-contract its obligations under an Order Contract to Key Subcontractors listed on the Platform who are specifically nominated in the Order Form.
- 1.3 Where during the Contract Period the Supplier wishes to enter into a new Key Sub-contract or replace a Key Subcontractor, it must obtain the prior written consent of CCS and the Buyer and the Supplier shall, at the time of requesting such consent, provide CCS and the Buyer with the information detailed in Paragraph 1.4. The decision of CCS and the Buyer to consent or not will not be unreasonably withheld or delayed. Where CCS consents to the appointment of a new Key Subcontractor then they will be added to the Platform. Where the Buyer consents to the appointment of a new Key Subcontractor then they will be added to the Key Subcontractor section of the Order Form. CCS and the Buyer may reasonably withhold their consent to the appointment of a Key Subcontractor if it considers that:
 - 1.3.1 the appointment of a proposed Key Subcontractor may prejudice the provision of the Deliverables or may be contrary to its interests;
 - 1.3.2 the proposed Key Subcontractor is unreliable and/or has not provided reliable goods and or reasonable services to its other customers; and/or
 - 1.3.3 the proposed Key Subcontractor employs unfit persons.
- 1.4 The Supplier shall provide CCS and the Buyer with the following information in respect of the proposed Key Subcontractor:
 - 1.4.1 the proposed Key Subcontractor's name, registered office and company registration number;
 - 1.4.2 the scope/description of any Deliverables to be provided by the proposed Key Subcontractor;
 - 1.4.3 where the proposed Key Subcontractor is an Affiliate of the Supplier, evidence that demonstrates to the reasonable satisfaction of the CCS and the Buyer that the proposed Key Sub-Contract has been agreed on "arm's-length" terms;
 - 1.4.4 for CCS, the Key Sub-Contract price expressed as a percentage of the total projected DPS Price over the DPS Contract Period;
 - 1.4.5 for the Buyer, the Key Sub-Contract price expressed as a percentage of the total projected Charges over the Order Contract Period; and
 - 1.4.6 (where applicable) Credit Rating Threshold (as defined in Joint Schedule 7 (Financial Distress)) of the Key Subcontractor.

- 1.5 If requested by CCS and/or the Buyer, within ten (10) Working Days of receipt of the information provided by the Supplier pursuant to Paragraph 1.4, the Supplier shall also provide:
 - 1.5.1 a copy of the proposed Key Sub-Contract; and
 - 1.5.2 any further information reasonably requested by CCS and/or the Buyer.
- 1.6 The Supplier shall ensure that each new or replacement Key Sub-Contract shall include:
 - 1.6.1 provisions which will enable the Supplier to discharge its obligations under the Contracts;
 - 1.6.2 a right under CRTPA for CCS and the Buyer to enforce any provisions under the Key Sub-Contract which confer a benefit upon CCS and the Buyer respectively;
 - 1.6.3 a provision enabling CCS and the Buyer to enforce the Key Sub-Contract as if it were the Supplier;
 - 1.6.4 a provision enabling the Supplier to assign, novate or otherwise transfer any of its rights and/or obligations under the Key Sub-Contract to CCS and/or the Buyer;
 - 1.6.5 obligations no less onerous on the Key Subcontractor than those imposed on the Supplier under the DPS Contract in respect of:
 - (a) the data protection requirements set out in Clause 14 (Data protection);
 - (b) the FOIA and other access request requirements set out in Clause 16 (When you can share information);
 - (c) the obligation not to embarrass CCS or the Buyer or otherwise bring CCS or the Buyer into disrepute;
 - (d) the keeping of records in respect of the goods and/or services being provided under the Key Sub-Contract, including the maintenance of Open Book Data; and
 - (e) the conduct of audits set out in Clause 6 (Record keeping and reporting);
 - 1.6.6 provisions enabling the Supplier to terminate the Key Sub-Contract on notice on terms no more onerous on the Supplier than those imposed on CCS and the Buyer under Clauses 10.4 (When CCS or the Buyer can end this contract) and 10.5 (What happens if the contract ends) of this Contract; and
 - 1.6.7 a provision restricting the ability of the Key Subcontractor to sub-contract all or any part of the provision of the Deliverables provided to the Supplier under the Key Sub-Contract without first seeking the written consent of CCS and the Buyer.

Joint Schedule 7 (Financial Difficulties)

Definitions

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

- | | |
|-----------------------------------|--|
| "Credit Rating Threshold" | 1 the minimum credit rating level for the Monitored Company as set out in Annex 2; |
| "Financial Distress Event" | 2 the occurrence of one or more of the following events: <ul style="list-style-type: none">a) the credit rating of the Monitored Company dropping below the applicable Credit Rating Threshold;b) the Monitored Company issuing a profits warning to a stock exchange or making any other public announcement about a material deterioration in its financial position or prospects;c) there being a public investigation into improper financial accounting and reporting, suspected fraud or any other impropriety of the Monitored Company;d) Monitored Company committing a material breach of covenant to its lenders;e) a Key Subcontractor (where applicable) notifying CCS that the Supplier has not satisfied any sums properly due under a specified invoice and not subject to a genuine dispute; orf) any of the following:<ul style="list-style-type: none">i) commencement of any litigation against the Monitored Company with respect to financial indebtedness or obligations under a contract;ii) non-payment by the Monitored Company of any financial indebtedness;iii) any financial indebtedness of the Monitored Company becoming due as a result of an event of default; or |

iv) the cancellation or suspension of any financial indebtedness in respect of the Monitored Company

3 in each case which CCS reasonably believes (or would be likely reasonably to believe) could directly impact on the continued performance of any Contract and delivery of the Deliverables in accordance with any Order Contract;

"Financial Distress Service Continuity Plan"

4 a plan setting out how the Supplier will ensure the continued performance and delivery of the Deliverables in accordance with [each Order] Contract in the event that a Financial Distress Event occurs;

"Monitored Company"

5 Supplier or any Key Subcontractor

"Rating Agencies"

6 the rating agencies listed in Annex 1.

When this Schedule applies

The Parties shall comply with the provisions of this Schedule in relation to the assessment of the financial standing of the Monitored Companies and the consequences of a change to that financial standing.

The terms of this Schedule shall survive termination or expiry of this Contract:

under the DPS Contract until the later of (a) the termination or expiry of the DPS Contract or (b) the latest date of termination or expiry of any Order Contract entered into under the DPS Contract (which might be after the date of termination or expiry of the DPS Contract); and

under the Order Contract until the termination or expiry of the Order Contract.

What happens when your credit rating changes

The Supplier warrants and represents to CCS that as at the Start Date the long term credit ratings issued for the Monitored Companies by each of the Rating Agencies are as set out in Annex 2.

The Supplier shall promptly (and in any event within five (5) Working Days) notify CCS in writing if there is any downgrade in the credit rating issued by any Rating Agency for a Monitored Company.

If there is any downgrade credit rating issued by any Rating Agency for the Monitored Company the Supplier shall ensure that the Monitored Company's auditors thereafter provide CCS within 10 Working Days of the end of each Contract Year and within 10 Working Days of written request by CCS (such requests not to exceed 4 in any Contract Year) with written calculations of the quick ratio for the Monitored Company as at the end of each Contract Year or such other date as may be requested by CCS. For these purposes the "quick ratio" on any date means:

$$\frac{A + B + C}{D}$$

where:

- A is the value at the relevant date of all cash in hand and at the bank of the Monitored Company];
- B is the value of all marketable securities held by the Supplier the Monitored Company determined using closing prices on the Working Day preceding the relevant date;
- C is the value at the relevant date of all account receivables of the Monitored Company]; and
- D is the value at the relevant date of the current liabilities of the Monitored Company].

The Supplier shall:

regularly monitor the credit ratings of each Monitored Company with the Rating Agencies; and

promptly notify (or shall procure that its auditors promptly notify) CCS in writing following the occurrence of a Financial Distress Event or any fact, circumstance or matter which could cause a Financial Distress Event and in any event, ensure that such notification is made within 10 Working Days of the date on which the Supplier first becomes aware of the Financial Distress Event or the fact, circumstance or matter which could cause a Financial Distress Event.

For the purposes of determining whether a Financial Distress Event has occurred the credit rating of the Monitored Company shall be deemed to have dropped below the applicable Credit Rating Threshold if any of the Rating Agencies have rated the Monitored Company at or below the applicable Credit Rating Threshold.

What happens if there is a financial distress event

In the event of a Financial Distress Event then, immediately upon notification of the Financial Distress Event (or if CCS becomes aware of the Financial Distress Event without notification and brings the event to the attention of the Supplier), the Supplier shall have the obligations and CCS shall have the rights and remedies as set out in Paragraphs 4.3 to 4.6.

[In the event that a Financial Distress Event arises due to a Key Subcontractor notifying CCS that the Supplier has not satisfied any sums properly due under a specified invoice and not subject to a genuine dispute then, CCS shall not exercise any of its rights or remedies under Paragraph 4.3 without first giving the Supplier ten (10) Working Days to:

rectify such late or non-payment; or

demonstrate to CCS's reasonable satisfaction that there is a valid reason for late or non-payment.]

The Supplier shall and shall procure that the other Monitored Companies shall:

- at the request of CCS meet CCS as soon as reasonably practicable (and in any event within three (3) Working Days of the initial notification (or awareness) of the Financial Distress Event) to review the effect of the Financial Distress Event on the continued performance of each Contract and delivery of the Deliverables in accordance each Order Contract; and

- where CCS reasonably believes (taking into account the discussions and any representations made under Paragraph 4.3.1) that the Financial Distress Event could impact on the continued performance of each Contract and delivery of the Deliverables in accordance with each Order Contract:

- submit to CCS for its Approval, a draft Financial Distress Service Continuity Plan as soon as reasonably practicable (and in any event, within ten (10) Working Days of the initial notification (or awareness) of the Financial Distress Event); and

- provide such financial information relating to the Monitored Company as CCS may reasonably require.

If CCS does not (acting reasonably) approve the draft Financial Distress Service Continuity Plan, it shall inform the Supplier of its reasons and the Supplier shall take those reasons into account in the preparation of a further draft Financial Distress Service Continuity Plan, which shall be resubmitted to CCS within five (5) Working Days of the rejection of the first or subsequent (as the case may be) drafts. This process shall be repeated until the Financial Distress Service Continuity Plan is Approved by CCS or referred to the Dispute Resolution Procedure.

If CCS considers that the draft Financial Distress Service Continuity Plan is insufficiently detailed to be properly evaluated, will take too long to complete or will not remedy the relevant Financial Distress Event, then it may either agree a further time period for the development and agreement of the Financial Distress Service Continuity Plan or escalate any issues with the draft Financial Distress Service Continuity Plan using the Dispute Resolution Procedure.

Following Approval of the Financial Distress Service Continuity Plan by CCS, the Supplier shall:

- on a regular basis (which shall not be less than Monthly), review the Financial Distress Service Continuity Plan and assess whether it remains adequate and up to date to ensure the continued performance of each Contract and delivery of the Deliverables in accordance with each Order Contract;

- where the Financial Distress Service Continuity Plan is not adequate or up to date in accordance with Paragraph 4.6.1, submit an updated Financial Distress Service Continuity Plan to CCS for its Approval, and the provisions of Paragraphs 4.5 and 4.6 shall apply to the review and Approval process for the updated Financial Distress Service Continuity Plan; and

comply with the Financial Distress Service Continuity Plan (including any updated Financial Distress Service Continuity Plan).

Where the Supplier reasonably believes that the relevant Financial Distress Event (or the circumstance or matter which has caused or otherwise led to it) no longer exists, it shall notify CCS and subject to the agreement of the Parties, the Supplier may be relieved of its obligations under Paragraph 4.6.

CCS shall be able to share any information it receives from the Buyer in accordance with this Paragraph with any Buyer who has entered into an Order Contract with the Supplier.

When CCS or the Buyer can terminate for financial distress

CCS shall be entitled to terminate this Contract and Buyers shall be entitled to terminate their Order Contracts for material Default if:

the Supplier fails to notify CCS of a Financial Distress Event in accordance with Paragraph 3.4;

CCS and the Supplier fail to agree a Financial Distress Service Continuity Plan (or any updated Financial Distress Service Continuity Plan) in accordance with Paragraphs 4.3 to 4.5; and/or

the Supplier fails to comply with the terms of the Financial Distress Service Continuity Plan (or any updated Financial Distress Service Continuity Plan) in accordance with Paragraph 4.6.3.

What happens If your credit rating is still good

Without prejudice to the Supplier's obligations and CCS' and the Buyer's rights and remedies under Paragraph 5, if, following the occurrence of a Financial Distress Event, the Rating Agencies review and report subsequently that the credit ratings do not drop below the relevant Credit Rating Threshold, then:

the Supplier shall be relieved automatically of its obligations under Paragraphs 4.3 to 4.6; and

CCS shall not be entitled to require the Supplier to provide financial information in accordance with Paragraph 4.3.2(b).

ANNEX 1: RATING AGENCIES

Dun and Bradstreet (D&B)

ANNEX 2: CREDIT RATINGS & CREDIT RATING THRESHOLDS

Part 1: Current Rating

Entity	Credit rating (long term)
Supplier	D&B Threshold

Joint Schedule 10 (Rectification Plan)

Request for [Revised] Rectification Plan			
Details of the Default:	[Guidance: Explain the Default, with clear schedule and clause references as appropriate]		
Deadline for receiving the [Revised] Rectification Plan:	[add date (minimum 10 days from request)]		
Signed by Buyer:		Date:	
Supplier [Revised] Rectification Plan			
Cause of the Default	[add cause]		
Anticipated impact assessment:	[add impact]		
Actual effect of Default:	[add effect]		
Steps to be taken to rectification:	Steps	Timescale	
	1.	[date]	
	2.	[date]	
	3.	[date]	
	4.	[date]	
	[...]	[date]	
Timescale for complete Rectification of Default	[X] Working Days		
Steps taken to prevent recurrence of Default	Steps	Timescale	
	1.	[date]	
	2.	[date]	
	3.	[date]	
	4.	[date]	
	[...]	[date]	
Signed by the Supplier:		Date:	

Review of Rectification Plan Buyer			
Outcome of review	[Plan Accepted] [Plan Rejected] [Revised Plan Requested]		
Reasons for Rejection (if applicable)	[add reasons]		
Signed by Buyer		Date:	

Joint Schedule 11 (Processing Data)

Definitions

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

“Processor Personnel” all directors, officers, employees, agents, consultants and suppliers of the Processor and/or of any Subprocessor engaged in the performance of its obligations under a Contract;

Status of the Controller

2. The Parties acknowledge that for the purposes of the Data Protection Legislation, the nature of the activity carried out by each of them in relation to their respective obligations under a Contract dictates the status of each party under the DPA 2018. A Party may act as:
 - (a) “Controller” in respect of the other Party who is “Processor”;
 - (b) “Processor” in respect of the other Party who is “Controller”;
 - (c) “Joint Controller” with the other Party;
 - (d) “Independent Controller” of the Personal Data where the other Party is also “Controller”,

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

Where one Party is Controller and the other Party its Processor

3. Where a Party is a Processor, the only Processing that it is authorised to do is listed in Annex 1 (*Processing Personal Data*) by the Controller.
4. The Processor shall notify the Controller immediately if it considers that any of the Controller’s instructions infringe the Data Protection Legislation.
5. The Processor shall provide all reasonable assistance to the Controller in the preparation of any Data Protection Impact Assessment prior to commencing any Processing. Such assistance may, at the discretion of the Controller, include:
 - (a) a systematic description of the envisaged Processing and the purpose of the Processing;
 - (b) an assessment of the necessity and proportionality of the Processing in relation to the Deliverables;
 - (c) an assessment of the risks to the rights and freedoms of Data Subjects; and

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

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

- (a) Process that Personal Data only in accordance with Annex 1 (*Processing Personal Data*), unless the Processor is required to do otherwise by Law. If it is so required the Processor shall notify the Controller before Processing the Personal Data unless prohibited by Law;
- (b) ensure that it has in place Protective Measures, including in the case of the Supplier the measures set out in Clause 14.3 of the Core Terms, which the Controller may reasonably reject (but failure to reject shall not amount to approval by the Controller of the adequacy of the Protective Measures) having taken account of the:
 - (i) nature of the data to be protected;
 - (ii) harm that might result from a Personal Data Breach;
 - (iii) state of technological development; and
 - (iv) cost of implementing any measures;
- (c) ensure that :
 - (i) the Processor Personnel do not Process Personal Data except in accordance with the Contract (and in particular Annex 1 (*Processing Personal Data*));
 - (ii) it takes all reasonable steps to ensure the reliability and integrity of any Processor Personnel who have access to the Personal Data and ensure that they:
 - (A) are aware of and comply with the Processor's duties under this Joint Schedule 11, Clauses 14 (*Data protection*), 15 (*What you must keep confidential*) and 16 (*When you can share information*);
 - (B) are subject to appropriate confidentiality undertakings with the Processor or any Subprocessor;
 - (C) are informed of the confidential nature of the Personal Data and do not publish, disclose or divulge any of the Personal Data to any third party unless directed in writing to do so by the Controller or as otherwise permitted by the Contract; and
 - (D) have undergone adequate training in the use, care, protection and handling of Personal Data;
- (d) not transfer Personal Data outside of the UK or EU unless the prior written consent of the Controller has been obtained and the following conditions are fulfilled:
 - (i) the Controller or the Processor has provided appropriate safeguards in relation to the transfer (whether in accordance with UK GDPR Article 46 or LED Article 37) as determined by the Controller;
 - (ii) the Data Subject has enforceable rights and effective legal remedies;
 - (iii) the Processor complies with its obligations under the Data Protection Legislation by providing an adequate level of protection to any Personal

Data that is transferred (or, if it is not so bound, uses its best endeavours to assist the Controller in meeting its obligations); and

- (iv) the Processor complies with any reasonable instructions notified to it in advance by the Controller with respect to the Processing of the Personal Data; and
 - (e) at the written direction of the Controller, delete or return Personal Data (and any copies of it) to the Controller on termination of the Contract unless the Processor is required by Law to retain the Personal Data.
7. Subject to paragraph 7 of this Joint Schedule 11, the Processor shall notify the Controller immediately if in relation to it Processing Personal Data under or in connection with the Contract it:
- (a) receives a Data Subject Access Request (or purported Data Subject Access Request);
 - (b) receives a request to rectify, block or erase any Personal Data;
 - (c) receives any other request, complaint or communication relating to either Party's obligations under the Data Protection Legislation;
 - (d) receives any communication from the Information Commissioner or any other regulatory authority in connection with Personal Data Processed under the Contract;
 - (e) receives a request from any third Party for disclosure of Personal Data where compliance with such request is required or purported to be required by Law; or
 - (f) becomes aware of a Personal Data Breach.
8. The Processor's obligation to notify under paragraph 6 of this Joint Schedule 11 shall include the provision of further information to the Controller, as details become available.
9. Taking into account the nature of the Processing, the Processor shall provide the Controller with assistance in relation to either Party's obligations under Data Protection Legislation and any complaint, communication or request made under paragraph 6 of this Joint Schedule 11 (and insofar as possible within the timescales reasonably required by the Controller) including by immediately providing:
- (a) the Controller with full details and copies of the complaint, communication or request;
 - (b) such assistance as is reasonably requested by the Controller to enable it to comply with a Data Subject Access Request within the relevant timescales set out in the Data Protection Legislation;
 - (c) the Controller, at its request, with any Personal Data it holds in relation to a Data Subject;
 - (d) assistance as requested by the Controller following any Personal Data Breach; and/or
 - (e) assistance as requested by the Controller with respect to any request from the Information Commissioner's Office, or any consultation by the Controller with the Information Commissioner's Office.

10. The Processor shall maintain complete and accurate records and information to demonstrate its compliance with this Joint Schedule 11. This requirement does not apply where the Processor employs fewer than 250 staff, unless:
 - (a) the Controller determines that the Processing is not occasional;
 - (b) the Controller determines the Processing includes special categories of data as referred to in Article 9(1) of the UK GDPR or Personal Data relating to criminal convictions and offences referred to in Article 10 of the UK GDPR; or
 - (c) the Controller determines that the Processing is likely to result in a risk to the rights and freedoms of Data Subjects.
11. The Processor shall allow for audits of its Data Processing activity by the Controller or the Controller's designated auditor.
12. The Parties shall designate a Data Protection Officer if required by the Data Protection Legislation.
13. Before allowing any Subprocessor to Process any Personal Data related to the Contract, the Processor must:
 - (a) notify the Controller in writing of the intended Subprocessor and Processing;
 - (b) obtain the written consent of the Controller;
 - (c) enter into a written agreement with the Subprocessor which give effect to the terms set out in this Joint Schedule 11 such that they apply to the Subprocessor; and
 - (d) provide the Controller with such information regarding the Subprocessor as the Controller may reasonably require.
14. The Processor shall remain fully liable for all acts or omissions of any of its Subprocessors.
15. The Relevant Authority may, at any time on not less than thirty (30) Working Days' notice, revise this Joint Schedule 11 by replacing it with any applicable controller to processor standard clauses or similar terms forming part of an applicable certification scheme (which shall apply when incorporated by attachment to the Contract).
16. The Parties agree to take account of any guidance issued by the Information Commissioner's Office. The Relevant Authority may on not less than thirty (30) Working Days' notice to the Supplier amend the Contract to ensure that it complies with any guidance issued by the Information Commissioner's Office.

Where the Parties are Joint Controllers of Personal Data

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

Independent Controllers of Personal Data

18. With respect to Personal Data provided by one Party to another Party for which each Party acts as Controller but which is not under the Joint Control of the Parties, each Party undertakes to comply with the applicable Data Protection Legislation in respect of their Processing of such Personal Data as Controller.
19. Each Party shall Process the Personal Data in compliance with its obligations under the Data Protection Legislation and not do anything to cause the other Party to be in breach of it.
20. Where a Party has provided Personal Data to the other Party in accordance with paragraph 8 of this Joint Schedule 11 above, the recipient of the Personal Data will provide all such relevant documents and information relating to its data protection policies and procedures as the other Party may reasonably require.
21. The Parties shall be responsible for their own compliance with Articles 13 and 14 UK GDPR in respect of the Processing of Personal Data for the purposes of the Contract.
22. The Parties shall only provide Personal Data to each other:
 - (a) to the extent necessary to perform their respective obligations under the Contract;
 - (b) in compliance with the Data Protection Legislation (including by ensuring all required data privacy information has been given to affected Data Subjects to meet the requirements of Articles 13 and 14 of the UK GDPR); and
 - (c) where it has recorded it in Annex 1 (*Processing Personal Data*).
23. Taking into account the state of the art, the costs of implementation and the nature, scope, context and purposes of Processing as well as the risk of varying likelihood and severity for the rights and freedoms of natural persons, each Party shall, with respect to its Processing of Personal Data as Independent Controller, implement and maintain appropriate technical and organisational measures to ensure a level of security appropriate to that risk, including, as appropriate, the measures referred to in Article 32(1)(a), (b), (c) and (d) of the UK GDPR, and the measures shall, at a minimum, comply with the requirements of the Data Protection Legislation, including Article 32 of the UK GDPR.
24. A Party Processing Personal Data for the purposes of the Contract shall maintain a record of its Processing activities in accordance with Article 30 UK GDPR and shall make the record available to the other Party upon reasonable request.
25. Where a Party receives a request by any Data Subject to exercise any of their rights under the Data Protection Legislation in relation to the Personal Data provided to it by the other Party pursuant to the Contract (**“Request Recipient”**):
 - (a) the other Party shall provide any information and/or assistance as reasonably requested by the Request Recipient to help it respond to the request or correspondence, at the cost of the Request Recipient; or

- (b) where the request or correspondence is directed to the other Party and/or relates to that other Party's Processing of the Personal Data, the Request Recipient will:
 - (i) promptly, and in any event within five (5) Working Days of receipt of the request or correspondence, inform the other Party that it has received the same and shall forward such request or correspondence to the other Party; and
 - (ii) provide any information and/or assistance as reasonably requested by the other Party to help it respond to the request or correspondence in the timeframes specified by Data Protection Legislation.
- 26. Each Party shall promptly notify the other Party upon it becoming aware of any Personal Data Breach relating to Personal Data provided by the other Party pursuant to the Contract and shall:
 - (a) do all such things as reasonably necessary to assist the other Party in mitigating the effects of the Personal Data Breach;
 - (b) implement any measures necessary to restore the security of any compromised Personal Data;
 - (c) work with the other Party to make any required notifications to the Information Commissioner's Office and affected Data Subjects in accordance with the Data Protection Legislation (including the timeframes set out therein); and
 - (d) not do anything which may damage the reputation of the other Party or that Party's relationship with the relevant Data Subjects, save as required by Law.
- 27. Personal Data provided by one Party to the other Party may be used exclusively to exercise rights and obligations under the Contract as specified in Annex 1 (*Processing Personal Data*).
- 28. Personal Data shall not be retained or processed for longer than is necessary to perform each Party's respective obligations under the Contract which is specified in Annex 1 (*Processing Personal Data*).
- 29. Notwithstanding the general application of paragraphs 2 to 16 of this Joint Schedule 11 to Personal Data, where the Supplier is required to exercise its regulatory and/or legal obligations in respect of Personal Data, it shall act as an Independent Controller of Personal Data in accordance with paragraphs 18 to 27 of this Joint Schedule 11.

Annex 1 - Processing Personal Data

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

- 1.1 The contact details of the Relevant Authority's Data Protection Officer are:
 DSIT Data Protection Officer
 Department for Science, Innovation and Technology
 1 Victoria Street
 London
 SW1H 0ET
 Email dataprotection@energysecurity.gov.uk
- 1.2 The contact details of the Supplier's Data Protection Officer are: Mr Andrew Ladd, Head of Information Governance, info.access@durham.ac.uk
- 1.3 The Processor shall comply with any further written instructions with respect to Processing by the Controller.
- 1.4 Any such further instructions shall be incorporated into this Annex.

Description	Details
Identity of Controller for each Category of Personal Data	<p>The Parties are Independent Controllers of Personal Data</p> <p>The Parties acknowledge that they are Independent Controllers for the purposes of the Data Protection Legislation in respect of:</p> <ul style="list-style-type: none"> • Business contact details of Supplier Personnel for which the Supplier is the Controller, • Business contact details of any directors, officers, employees, agents, consultants and contractors of Relevant Authority (excluding the Supplier Personnel) engaged in the performance of the Relevant Authority's duties under the Contract) for which the Relevant Authority is the Controller <p>The Relevant Authority is Controller and the Supplier is Processor</p> <p>The Parties acknowledge that in accordance with paragraph 2 to paragraph 15 and for the purposes of the Data Protection Legislation, the Relevant Authority is the Controller and the Supplier is the Processor of the following Personal Data:</p> <ul style="list-style-type: none"> • The personal data of stakeholders who might participate in the interviews and focus groups will be provided to contracted research provider for processing, this processing will involve using stakeholder emails, names and information

	<p>to recruit stakeholders to participate in interviews and focus groups as part of the research project.</p> <ul style="list-style-type: none"> Any other personal data processed as agreed between the parties
Duration of the Processing	The contract term starting 25 th March 2024 for 12months ending 24 th March 2025.
Nature and purposes of the Processing	<p>The data will be personal data of staff in both the Contracting Authority and the Supplier.</p> <p>The personal data of staff in both the Contracting Authority and the Supplier is needed to deliver the services and to undertake the Contract and performance management. The Contract itself will include the names and business contact details of staff of both the Contracting Authority and the Contractor involved in managing the Contract.</p>
Type of Personal Data	<p>Names, email addresses, place of employment, profession.</p> <p>Names, business telephone numbers and email addresses, office location and position of staff of both the Contracting Authority and the Supplier as necessary to deliver the services and to undertake the Contract and performance management. The Contract itself will include the names and business contact details of staff of both the Contracting Authority and the Supplier involved in managing the contract.</p>
Categories of Data Subject	Staff of the Contracting Authority and the Supplier, including where those employees are named within the Contract itself or involved within the Contract management. Industry stakeholders (e.g. Academics, industry experts, third party organisations representatives etc.)
<p>Plan for return and destruction of the data once the Processing is complete</p> <p>UNLESS requirement under Union or Member State law to</p>	Where Personal Data is contained within the Contract documentation, this will be retained in line with the Department's privacy notice found within the Procurement Documents. Where Personal data is not is contained within the Contract documentation (the stakeholder details), the Personal Data will be retained by the Supplier for the duration of the contract, following which the Contractor will provide the Contracting Authority with a complete and uncorrupted version of the Personal Data in electronic form (or such other format as reasonably required by the Contracting

preserve that type of data	<p>Authority) and erase from any computers, storage devices and storage media that are to be retained by the Supplier the expiry of the Contract. The Supplier will certify to the Contracting Authority that it has completed such deletion.</p> <p>Where the Supplier retains personal data as a controller, Personal data processed for the purpose of the engagement will be held for a period of maximum 7 years from termination of the agreement, after which data will be deleted.</p>
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Annex 2 - Joint Controller Agreement

Not Used

Order Schedule 1 (Transparency Reports)

- 1.1 The Supplier recognises that the Buyer is subject to PPN 01/17 (Updates to transparency principles v1.1 (<https://www.gov.uk/government/publications/procurement-policy-note-0117-update-to-transparency-principles>)). The Supplier shall comply with the provisions of this Schedule in order to assist the Buyer with its compliance with its obligations under that PPN.
- 1.2 Without prejudice to the Supplier's reporting requirements set out in the DPS Contract, within three (3) Months of the Start Date the Supplier shall submit to the Buyer for Approval (such Approval not to be unreasonably withheld or delayed) draft Transparency Reports consistent with the content requirements and format set out in the Annex of this Schedule.
- 1.3 If the Buyer rejects any proposed Transparency Report submitted by the Supplier, the Supplier shall submit a revised version of the relevant report for further Approval within five (5) days of receipt of any notice of rejection, taking account of any recommendations for revision and improvement to the report provided by the Buyer. If the Parties fail to agree on a draft Transparency Report the Buyer shall determine what should be included. Any other disagreement in connection with Transparency Reports shall be treated as a Dispute.
- 1.4 The Supplier shall provide accurate and up-to-date versions of each Transparency Report to the Buyer at the frequency referred to in the Annex of this Schedule.

Annex A: List of Transparency Reports

Title	Content	Format	Frequency
Call-Off Contract Charges and Payment Data	<p>Call-Off contract charges and payment data</p> <p>This shall exclude information where the publication of information:</p> <ul style="list-style-type: none"> • would impede law enforcement or would otherwise be contrary to the public interest; • would prejudice the legitimate Commercial interests of the Supplier; or • might prejudice fair competition between the Supplier and other suppliers in the market for future opportunities. 	<p>The Supplier shall respond to requests for the provision of information in response to the Buyer's disclosure obligations under Government Transparency Standards, the Freedom of Information Act, Environmental Information Regulations and Parliamentary Questions.</p>	Per Buyer's request.
Key Subcontractors	<p>Accurate MI on any Subcontractors who deliver services for the Supplier to the Buyer.</p> <p>This shall exclude information where the publication of information:</p> <ul style="list-style-type: none"> • would impede law enforcement or would otherwise be contrary to the public interest; • would prejudice the legitimate Commercial interests of the Supplier; or • might prejudice fair competition between the Supplier and other suppliers in the market for future opportunities. 	<p>The Supplier shall respond to requests for the provision of information in response to the Buyer's disclosure obligations under Government Transparency Standards, the Freedom of Information Act, Environmental Information Regulations and Parliamentary Questions.</p>	Per Buyer's request.
Performance	Weekly verbal, and fortnightly presentation of a progress written report.	As agreed with the Supplier.	Additional information

	<p>Quarterly Review Meeting (expectations are 4 QRMs to sit within the 12 month contract)</p> <p>Accurate Management Information (MI) on Supplier Service Level Performance, including delivery of Social Value Priorities.</p> <p>This shall exclude information where the publication of information:</p> <ul style="list-style-type: none">• would impede law enforcement or would otherwise be contrary to the public interest;• would prejudice the legitimate Commercial interests of the Supplier; or• might prejudice fair competition between the Supplier and other suppliers in the market for future opportunities.	<p>Additionally, the Supplier shall respond to requests for the provision of information in response to the Buyer's disclosure obligations under Government Transparency Standards, the Freedom of Information Act, Environmental Information Regulations and Parliamentary Questions.</p>	<p>per Buyer's request.</p>
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Order Schedule 2 (Staff Transfer)

1. Definitions

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

"Acquired Rights Directive"	<p>1 the European Council Directive 77/187/EEC on the approximation of laws of European member states relating to the safeguarding of employees' rights in the event of transfers of undertakings, businesses or parts of undertakings or businesses, as amended or re-enacted from time to time;</p> <p>2</p>
"Employee Liability"	<p>3 all claims, actions, proceedings, orders, demands, complaints, investigations (save for any claims for personal injury which are covered by insurance) and any award, compensation, damages, tribunal awards, fine, loss, order, penalty, disbursement, payment made by way of settlement and costs, expenses and legal costs reasonably incurred in connection with a claim or investigation including in relation to the following:</p> <p>a) redundancy payments including contractual or enhanced redundancy costs, termination costs and notice payments;</p>
	<p>b) unfair, wrongful or constructive dismissal compensation;</p>
	<p>c) compensation for discrimination on grounds of sex, race, disability, age, religion or belief, gender reassignment, marriage or civil partnership, pregnancy and maternity or sexual orientation or claims for equal pay;</p>
	<p>d) compensation for less favourable treatment of part-time workers or fixed term employees;</p>
	<p>e) outstanding employment debts and unlawful deduction of wages including any PAYE and National Insurance Contributions;</p>

	f) employment claims whether in tort, contract or statute or otherwise;
	g) any investigation relating to employment matters by the Equality and Human Rights Commission or other enforcement, regulatory or supervisory body and of implementing any requirements which may arise from such investigation;
"Former Supplier"	a supplier supplying services to the Buyer before the Relevant Transfer Date that are the same as or substantially similar to the Services (or any part of the Services) and shall include any Subcontractor of such supplier (or any Subcontractor of any such Subcontractor);
"New Fair Deal"	the revised Fair Deal position set out in the HM Treasury guidance: <i>"Fair Deal for Staff Pensions: Staff Transfer from Central Government"</i> issued in October 2013 including: <ul style="list-style-type: none"> (i) any amendments to that document immediately prior to the Relevant Transfer Date; and (ii) any similar pension protection in accordance with the Annexes D1-D3 inclusive to Part D of this Schedule as notified to the Supplier by the Buyer;
"Old Fair Deal"	HM Treasury Guidance <i>"Staff Transfers from Central Government: A Fair Deal for Staff Pensions"</i> issued in June 1999 including the supplementary guidance <i>"Fair Deal for Staff pensions: Procurement of Bulk Transfer Agreements and Related Issues"</i> issued in June 2004;
"Partial Termination"	the partial termination of the relevant Contract to the extent that it relates to the provision of any part of the Services as further provided for in Clause 10.4 (When CCS or the Buyer can end this contract) or 10.6 (When the Supplier can end the contract);
"Relevant Transfer"	a transfer of employment to which the Employment Regulations applies;
"Relevant Transfer Date"	in relation to a Relevant Transfer, the date upon which the Relevant Transfer takes place. For the purposes of Part D: Pensions and its Annexes, where the Supplier or a Subcontractor was the Former Supplier and there is no Relevant Transfer of the Fair Deal Employees because they remain continuously employed by the

	Supplier (or Subcontractor), references to the Relevant Transfer Date shall become references to the Start Date;
"Staffing Information"	<p>in relation to all persons identified on the Supplier's Provisional Supplier Personnel List or Supplier's Final Supplier Personnel List, as the case may be, such information as the Buyer may reasonably request (subject to all applicable provisions of the Data Protection Legislation), but including in an anonymised format:</p> <p>(a) their ages, dates of commencement of employment or engagement, gender and place of work;</p>
	(b) details of whether they are employed, self-employed contractors or consultants, agency workers or otherwise;
	(c) the identity of the employer or relevant contracting Party;
	(d) their relevant contractual notice periods and any other terms relating to termination of employment, including redundancy procedures, and redundancy payments;
	(e) their wages, salaries, bonuses and profit sharing arrangements as applicable;
	(f) details of other employment-related benefits, including (without limitation) medical insurance, life assurance, pension or other retirement benefit schemes, share option schemes and company car schedules applicable to them;
	(g) any outstanding or potential contractual, statutory or other liabilities in respect of such individuals (including in respect of personal injury claims);
	(h) details of any such individuals on long term sickness absence, parental leave, maternity leave or other authorised long term absence;
	(i) copies of all relevant documents and materials relating to such information, including copies of relevant contracts of employment (or relevant standard contracts if applied generally in respect of such employees); and

	(j) any other "employee liability information" as such term is defined in regulation 11 of the Employment Regulations;
"Supplier's Final Supplier Personnel List"	a list provided by the Supplier of all Supplier Staff whose will transfer under the Employment Regulations on the Service Transfer Date;
"Supplier's Provisional Supplier Personnel List"	a list prepared and updated by the Supplier of all Supplier Staff who are at the date of the list wholly or mainly engaged in or assigned to the provision of the Services or any relevant part of the Services which it is envisaged as at the date of such list will no longer be provided by the Supplier;
"Term"	the period commencing on the Start Date and ending on the expiry of the Initial Period or any Extension Period or on earlier termination of the relevant Contract;
"Transferring Buyer Employees"	those employees of the Buyer to whom the Employment Regulations will apply on the Relevant Transfer Date;
"Transferring Former Supplier Employees"	in relation to a Former Supplier, those employees of the Former Supplier to whom the Employment Regulations will apply on the Relevant Transfer Date.

2. INTERPRETATION

- 2.1 Where a provision in this Schedule imposes any obligation on the Supplier including (without limit) to comply with a requirement or provide an indemnity, undertaking or warranty, the Supplier shall procure that each of its Subcontractors shall comply with such obligation and provide such indemnity, undertaking or warranty to CCS, the Buyer, Former Supplier, Replacement Supplier or Replacement Subcontractor, as the case may be and where the Subcontractor fails to satisfy any claims under such indemnities the Supplier will be liable for satisfying any such claim as if it had provided the indemnity itself.
- 2.2 The provisions of Paragraphs 2.1 and 2.6 of Part A, Paragraph 3.1 of Part B, Paragraphs 1.5, 1.7 and 1.9 of Part C, Part D and Paragraphs 1.4, 2.3 and 2.8 of Part E of this Schedule (together "Third Party Provisions") confer benefits on third parties (each such person a "Third Party Beneficiary") and are intended to be enforceable by Third Party Beneficiaries by virtue of the CRTPA.
- 2.3 Subject to Paragraph 2.2 above, a person who is not a Party to this Order Contract has no right under the CRTPA to enforce any term of this Order Contract but this does not affect any right or remedy of any person which exists or is available otherwise than pursuant to that Act.
- 2.4 No Third Party Beneficiary may enforce, or take any step to enforce, any Third Party Provision without the prior written consent of the Buyer, which may, if given, be given on and subject to such terms as the Buyer may determine.

- 2.5 Any amendments or modifications to this Order Contract may be made, and any rights created under Paragraph 2.2 above may be altered or extinguished, by the Parties without the consent of any Third Party Beneficiary.

3. Which parts of this Schedule apply

Only the following parts of this Schedule shall apply to this Call Off Contract:

Part C (No Staff Transfer on the Start Date)

Part E (Staff Transfer on Exit)

PART C: NO STAFF TRANSFER ON THE START DATE

1. What happens if there is a staff transfer

- 1.1 The Buyer and the Supplier agree that the commencement of the provision of the Services or of any part of the Services will not be a Relevant Transfer in relation to any employees of the Buyer and/or any Former Supplier.
- 1.2 If any employee of the Buyer and/or a Former Supplier claims, or it is determined in relation to any employee of the Buyer and/or a Former Supplier, that his/her contract of employment has been transferred from the Buyer and/or the Former Supplier to the Supplier and/or any Subcontractor pursuant to the Employment Regulations or the Acquired Rights Directive then:
 - 1.2.1 the Supplier shall, and shall procure that the relevant Subcontractor shall, within 5 Working Days of becoming aware of that fact, notify the Buyer in writing and, where required by the Buyer, notify the Former Supplier in writing; and
 - 1.2.2 the Buyer and/or the Former Supplier may offer (or may procure that a third party may offer) employment to such person within 15 Working Days of the notification from the Supplier or the Subcontractor (as appropriate) or take such other reasonable steps as the Buyer or Former Supplier (as the case may be) it considers appropriate to deal with the matter provided always that such steps are in compliance with applicable Law.
- 1.3 If an offer referred to in Paragraph 1.2.2 is accepted (or if the situation has otherwise been resolved by the Buyer and/or the Former Supplier),, the Supplier shall, or shall procure that the Subcontractor shall, immediately release the person from his/her employment or alleged employment.
- 1.4 If by the end of the 15 Working Day period referred to in Paragraph 1.2.2:
 - 1.4.1 no such offer of employment has been made;
 - 1.4.2 such offer has been made but not accepted; or
 - 1.4.3 the situation has not otherwise been resolved;the Supplier may within 5 Working Days give notice to terminate the employment or alleged employment of such person.
- 1.5 Subject to the Supplier and/or the relevant Subcontractor acting in accordance with the provisions of Paragraphs 1.2 to 1.4 and in accordance with all applicable employment procedures set out in applicable Law and subject also to Paragraph 1.8 the Buyer shall:
 - 1.5.1 indemnify the Supplier and/or the relevant Subcontractor against all Employee Liabilities arising out of the termination of the employment of any of the Buyer's employees referred to in Paragraph 1.2 made pursuant to the provisions of Paragraph 1.4 provided that the Supplier takes, or shall procure that the Subcontractor takes, all reasonable steps to minimise any such Employee Liabilities; and

- 1.5.2 procure that the Former Supplier indemnifies the Supplier and/or any Subcontractor against all Employee Liabilities arising out of termination of the employment of the employees of the Former Supplier referred to in Paragraph 1.2 made pursuant to the provisions of Paragraph 1.4 provided that the Supplier takes, or shall procure that the relevant Subcontractor takes, all reasonable steps to minimise any such Employee Liabilities.
- 1.6 If any such person as is described in Paragraph 1.2 is neither re employed by the Buyer and/or the Former Supplier as appropriate nor dismissed by the Supplier and/or any Subcontractor within the 15 Working Day period referred to in Paragraph 1.4 such person shall be treated as having transferred to the Supplier and/or the Subcontractor (as appropriate) and the Supplier shall, or shall procure that the Subcontractor shall, comply with such obligations as may be imposed upon it under Law.
- 1.7 Where any person remains employed by the Supplier and/or any Subcontractor pursuant to Paragraph 1.6, all Employee Liabilities in relation to such employee shall remain with the Supplier and/or the Subcontractor and the Supplier shall indemnify the Buyer and any Former Supplier, and shall procure that the Subcontractor shall indemnify the Buyer and any Former Supplier, against any Employee Liabilities that either of them may incur in respect of any such employees of the Supplier and/or employees of the Subcontractor.
- 1.8 The indemnities in Paragraph 1.5:
- 1.8.1 shall not apply to:
- (a) any claim for:
- (i) discrimination, including on the grounds of sex, race, disability, age, gender reassignment, marriage or civil partnership, pregnancy and maternity or sexual orientation, religion or belief; or
- (ii) equal pay or compensation for less favourable treatment of part-time workers or fixed-term employees,
- in any case in relation to any alleged act or omission of the Supplier and/or Subcontractor; or
- (b) any claim that the termination of employment was unfair because the Supplier and/or any Subcontractor neglected to follow a fair dismissal procedure; and
- 1.8.2 shall apply only where the notification referred to in Paragraph 1.2.1 is made by the Supplier and/or any Subcontractor to the Buyer and, if applicable, Former Supplier within 6 months of the Start Date.
- 1.9 If the Supplier and/or the Subcontractor does not comply with Paragraph 1.2, all Employee Liabilities in relation to such employees shall remain with the Supplier and/or the Subcontractor and the Supplier shall (i) comply with the provisions of Part D: Pensions of this Schedule, and (ii) indemnify the Buyer and any Former Supplier against any Employee Liabilities that either of them may incur in respect of any such employees of the Supplier and/or employees of the Subcontractor.

2. Limits on the Former Supplier's obligations

Where in this Part C the Buyer accepts an obligation to procure that a Former Supplier does or does not do something, such obligation shall be limited so that it extends only to the extent that the Buyer's contract with the Former Supplier contains a contractual right in that regard which the Buyer may enforce, or otherwise so that it requires only that the Buyer must use reasonable endeavours to procure that the Former Supplier does or does not act accordingly.

Part E: Staff Transfer on Exit

1. Obligations before a Staff Transfer

1.1 The Supplier agrees that within 20 Working Days of the earliest of:

- 1.1.1 receipt of a notification from the Buyer of a Service Transfer or intended Service Transfer;
- 1.1.2 receipt of the giving of notice of early termination or any Partial Termination of the relevant Contract;
- 1.1.3 the date which is 12 Months before the end of the Term; and
- 1.1.4 receipt of a written request of the Buyer at any time (provided that the Buyer shall only be entitled to make one such request in any 6 Month period),

it shall provide in a suitably anonymised format so as to comply with the Data Protection Legislation, the Supplier's Provisional Supplier Personnel List, together with the Staffing Information in relation to the Supplier's Provisional Supplier Personnel List and it shall provide an updated Supplier's Provisional Supplier Personnel List at such intervals as are reasonably requested by the Buyer.

1.2 At least 20 Working Days prior to the Service Transfer Date, the Supplier shall provide to the Buyer or at the direction of the Buyer to any Replacement Supplier and/or any Replacement Subcontractor (i) the Supplier's Final Supplier Personnel List, which shall identify the basis upon which they are Transferring Supplier Employees and (ii) the Staffing Information in relation to the Supplier's Final Supplier Personnel List (insofar as such information has not previously been provided).

1.3 The Buyer shall be permitted to use and disclose information provided by the Supplier under Paragraphs 1.1 and 1.2 for the purpose of informing any prospective Replacement Supplier and/or Replacement Subcontractor.

1.4 The Supplier warrants, for the benefit of The Buyer, any Replacement Supplier, and any Replacement Subcontractor that all information provided pursuant to Paragraphs 1.1 and 1.2 shall be true and accurate in all material respects at the time of providing the information.

1.5 From the date of the earliest event referred to in Paragraph 1.1.1, 1.1.2 and 1.1.3, the Supplier agrees that it shall not, and agrees to procure that each Subcontractor shall not, assign any person to the provision of the Services who is not listed on the Supplier's Provisional Supplier Personnel List and shall not without the approval of the Buyer (not to be unreasonably withheld or delayed):

:

- 1.5.1 replace or re-deploy any Supplier Staff listed on the Supplier Provisional Supplier Personnel List other than where any replacement is of equivalent grade, skills, experience and expertise and is employed on the same terms and conditions of employment as the person he/she replaces
- 1.5.2 make, promise, propose, permit or implement any material changes to the terms and conditions of employment of the Supplier Staff (including

pensions and any payments connected with the termination of employment);

- 1.5.3 increase the proportion of working time spent on the Services (or the relevant part of the Services) by any of the Supplier Staff save for fulfilling assignments and projects previously scheduled and agreed;
- 1.5.4 introduce any new contractual or customary practice concerning the making of any lump sum payment on the termination of employment of any employees listed on the Supplier's Provisional Supplier Personnel List;
- 1.5.5 increase or reduce the total number of employees so engaged, or deploy any other person to perform the Services (or the relevant part of the Services);
- 1.5.6 terminate or give notice to terminate the employment or contracts of any persons on the Supplier's Provisional Supplier Personnel List save by due disciplinary process;

and shall promptly notify, and procure that each Subcontractor shall promptly notify, the Buyer or, at the direction of the Buyer, any Replacement Supplier and any Replacement Subcontractor of any notice to terminate employment given by the Supplier or relevant Subcontractor or received from any persons listed on the Supplier's Provisional Supplier Personnel List regardless of when such notice takes effect.

- 1.6 On or around each anniversary of the Start Date and up to four times during the last 12 Months of the Term, the Buyer may make written requests to the Supplier for information relating to the manner in which the Services are organised. Within 20 Working Days of receipt of a written request the Supplier shall provide, and shall procure that each Subcontractor shall provide, to the Buyer such information as the Buyer may reasonably require relating to the manner in which the Services are organised, which shall include:

- 1.6.1 the numbers of employees engaged in providing the Services;
- 1.6.2 the percentage of time spent by each employee engaged in providing the Services;
- 1.6.3 the extent to which each employee qualifies for membership of any of the Statutory Schemes or any Broadly Comparable scheme set up pursuant to the provisions of any of the Annexes to Part D (Pensions) (as appropriate); and
- 1.6.4 a description of the nature of the work undertaken by each employee by location.

- 1.7 The Supplier shall provide, and shall procure that each Subcontractor shall provide, all reasonable cooperation and assistance to the Buyer, any Replacement Supplier and/or any Replacement Subcontractor to ensure the smooth transfer of the Transferring Supplier Employees on the Service Transfer Date including providing sufficient information in advance of the Service Transfer Date to ensure that all necessary payroll arrangements can be made to enable the Transferring Supplier Employees to be paid as appropriate. Without prejudice to the generality of the foregoing, within 5 Working Days following the Service Transfer Date, the Supplier

shall provide, and shall procure that each Subcontractor shall provide, to the Buyer or, at the direction of the Buyer, to any Replacement Supplier and/or any Replacement Subcontractor (as appropriate), in respect of each person on the Supplier's Final Supplier Personnel List who is a Transferring Supplier Employee:

- 1.7.1 the most recent month's copy pay slip data;
- 1.7.2 details of cumulative pay for tax and pension purposes;
- 1.7.3 details of cumulative tax paid;
- 1.7.4 tax code;
- 1.7.5 details of any voluntary deductions from pay; and
- 1.7.6 bank/building society account details for payroll purposes.

2. Staff Transfer when the contract ends

- 2.1 The Buyer and the Supplier acknowledge that subsequent to the commencement of the provision of the Services, the identity of the provider of the Services (or any part of the Services) may change (whether as a result of termination or Partial Termination of the relevant Contract or otherwise) resulting in the Services being undertaken by a Replacement Supplier and/or a Replacement Subcontractor. Such change in the identity of the supplier of such services may constitute a Relevant Transfer to which the Employment Regulations and/or the Acquired Rights Directive will apply. The Buyer and the Supplier agree that, as a result of the operation of the Employment Regulations, where a Relevant Transfer occurs, the contracts of employment between the Supplier and the Transferring Supplier Employees (except in relation to any contract terms disapplied through operation of regulation 10(2) of the Employment Regulations) will have effect on and from the Service Transfer Date as if originally made between the Replacement Supplier and/or a Replacement Subcontractor (as the case may be) and each such Transferring Supplier Employee.
- 2.2 The Supplier shall, and shall procure that each Subcontractor shall, comply with all its obligations in respect of the Transferring Supplier Employees arising under the Employment Regulations in respect of the period up to (and including) the Service Transfer Date and shall perform and discharge, and procure that each Subcontractor shall perform and discharge, all its obligations in respect of all the Transferring Supplier Employees arising in respect of the period up to (and including) the Service Transfer Date (including (without limit) the payment of all remuneration, benefits, entitlements, and outgoings, all wages, accrued but untaken holiday pay, bonuses, commissions, payments of PAYE, national insurance contributions and pension contributions and all such sums due as a result of any Fair Deal Employees' participation in the Schemes which in any case are attributable in whole or in part to the period ending on (and including) the Service Transfer Date) and any necessary apportionments in respect of any periodic payments shall be made between: (i) the Supplier and/or the Subcontractor (as appropriate); and (ii) the Replacement Supplier and/or Replacement Subcontractor.
- 2.3 Subject to Paragraph 2.4, the Supplier shall indemnify the Buyer and/or the Replacement Supplier and/or any Replacement Subcontractor against any Employee Liabilities arising from or as a result of:
 - 2.3.1 any act or omission of the Supplier or any Subcontractor in respect of any Transferring Supplier Employee or any appropriate employee

representative (as defined in the Employment Regulations) of any Transferring Supplier Employee whether occurring before, on or after the Service Transfer Date;

2.3.2 the breach or non-observance by the Supplier or any Subcontractor occurring on or before the Service Transfer Date of:

- (a) any collective agreement applicable to the Transferring Supplier Employees; and/or
- (b) any other custom or practice with a trade union or staff association in respect of any Transferring Supplier Employees which the Supplier or any Subcontractor is contractually bound to honour;

2.3.3 any claim by any trade union or other body or person representing any Transferring Supplier Employees arising from or connected with any failure by the Supplier or a Subcontractor to comply with any legal obligation to such trade union, body or person arising on or before the Service Transfer Date;

2.3.4 any proceeding, claim or demand by HMRC or other statutory authority in respect of any financial obligation including, but not limited to, PAYE and primary and secondary national insurance contributions:

in relation to any Transferring Supplier Employee, to the extent that the proceeding, claim or demand by HMRC or other statutory authority relates to financial obligations arising on and before the Service Transfer Date; and

in relation to any employee who is not identified in the Supplier's Final Supplier Personnel List, and in respect of whom it is later alleged or determined that the Employment Regulations applied so as to transfer his/her employment from the Supplier to the Buyer and/or Replacement Supplier and/or any Replacement Subcontractor, to the extent that the proceeding, claim or demand by HMRC or other statutory authority relates to financial obligations arising on or before the Service Transfer Date;

2.3.5 a failure of the Supplier or any Subcontractor to discharge or procure the discharge of all wages, salaries and all other benefits and all PAYE tax deductions and national insurance contributions relating to the Transferring Supplier Employees in respect of the period up to (and including) the Service Transfer Date);

2.3.6 any claim made by or in respect of any person employed or formerly employed by the Supplier or any Subcontractor other than a Transferring Supplier Employee identified in the Supplier's Final Supplier Personnel List for whom it is alleged the Buyer and/or the Replacement Supplier and/or any Replacement Subcontractor may be liable by virtue of the relevant Contract and/or the Employment Regulations and/or the Acquired Rights Directive; and

- 2.3.7 any claim made by or in respect of a Transferring Supplier Employee or any appropriate employee representative (as defined in the Employment Regulations) of any Transferring Supplier Employee relating to any act or omission of the Supplier or any Subcontractor in relation to its obligations under regulation 13 of the Employment Regulations, except to the extent that the liability arises from the failure by the Buyer and/or Replacement Supplier to comply with regulation 13(4) of the Employment Regulations.
- 2.4 The indemnities in Paragraph 2.3 shall not apply to the extent that the Employee Liabilities arise or are attributable to an act or omission of the Replacement Supplier and/or any Replacement Subcontractor whether occurring or having its origin before, on or after the Service Transfer Date including any Employee Liabilities:
 - 2.4.1 arising out of the resignation of any Transferring Supplier Employee before the Service Transfer Date on account of substantial detrimental changes to his/her working conditions proposed by the Replacement Supplier and/or any Replacement Subcontractor to occur in the period on or after the Service Transfer Date); or
 - 2.4.2 arising from the Replacement Supplier's failure, and/or Replacement Subcontractor's failure, to comply with its obligations under the Employment Regulations.
- 2.5 If any person who is not identified in the Supplier's Final Supplier Employee List claims, or it is determined in relation to any employees of the Supplier, that his/her contract of employment has been transferred from the Supplier to the Replacement Supplier and/or Replacement Subcontractor pursuant to the Employment Regulations or the Acquired Rights Directive, then:
 - 2.5.1 the Buyer shall procure that the Replacement Supplier and/or Replacement Subcontractor will, within 5 Working Days of becoming aware of that fact, notify the Buyer and the Supplier in writing; and
 - 2.5.2 the Supplier may offer (or may procure that a Subcontractor may offer) employment to such person, or take such other reasonable steps as it considered appropriate to deal the matter provided always that such steps are in compliance with Law, within 15 Working Days of receipt of notice from the Replacement Supplier and/or Replacement Subcontractor.
- 2.6 If such offer of is accepted, or if the situation has otherwise been resolved by the Supplier or a Subcontractor, Buyer shall procure that the Replacement Supplier shall, or procure that the and/or Replacement Subcontractor shall, immediately release or procure the release the person from his/her employment or alleged employment;
- 2.7 If after the 15 Working Day period specified in Paragraph 2.5.2 has elapsed:
 - 2.7.1 no such offer has been made:
 - 2.7.2 such offer has been made but not accepted; or
 - 2.7.3 the situation has not otherwise been resolved

the Buyer shall advise the Replacement Supplier and/or Replacement Subcontractor (as appropriate) that it may within 5 Working Days give notice to terminate the employment or alleged employment of such person;

2.8 Subject to the Replacement Supplier's and/or Replacement Subcontractor acting in accordance with the provisions of Paragraphs 2.5 to 2.7 and in accordance with all applicable proper employment procedures set out in applicable Law and subject to Paragraph 2.9 below, the Supplier will indemnify the Replacement Supplier and/or Replacement Subcontractor against all Employee Liabilities arising out of the termination of the employment of any of the Supplier's employees pursuant to the provisions of Paragraph 2.7 provided that the Replacement Supplier takes, or shall procure that the Replacement Subcontractor takes, all reasonable steps to minimise any such Employee Liabilities.

2.9 The indemnity in Paragraph 2.8:

2.9.1 shall not apply to:

(a) any claim for:

- (i) discrimination, including on the grounds of sex, race, disability, age, gender reassignment, marriage or civil partnership, pregnancy and maternity or sexual orientation, religion or belief; or
- (ii) equal pay or compensation for less favourable treatment of part-time workers or fixed-term employees,

In any case in relation to any alleged act or omission of the Replacement Supplier and/or Replacement Subcontractor, or

(b) any claim that the termination of employment was unfair because the Replacement Supplier and/or Replacement Subcontractor neglected to follow a fair dismissal procedure; and

2.9.2 shall apply only where the notification referred to in Paragraph 2.5.1 is made by the Replacement Supplier and/or Replacement Subcontractor to the Supplier within 6 months of the Service Transfer Date..

2.10 If any such person as is described in Paragraph 2.5 is neither re-employed by the Supplier or any Subcontractor nor dismissed by the Replacement Supplier and/or Replacement Subcontractor within the time scales set out in Paragraphs 2.5 to 2.7, such person shall be treated as a Transferring Supplier Employee. .

2.11 The Supplier shall comply, and shall procure that each Subcontractor shall comply, with all its obligations under the Employment Regulations and shall perform and discharge, and shall procure that each Subcontractor shall perform and discharge, all its obligations in respect of any person identified in the Supplier's Final Supplier Personnel List before and on the Service Transfer Date (including the payment of all remuneration, benefits, entitlements and outgoings, all wages, accrued but untaken holiday pay, bonuses, commissions, payments of PAYE, national insurance contributions and pension contributions and such sums due as a result of any Fair Deal Employees' participation in the Schemes and any requirement to set up a broadly

comparable pension scheme which in any case are attributable in whole or in part in respect of the period up to (and including) the Service Transfer Date) and any necessary apportionments in respect of any periodic payments shall be made between:

the Supplier and/or any Subcontractor; and

the Replacement Supplier and/or the Replacement Subcontractor.

- 2.12 The Supplier shall, and shall procure that each Subcontractor shall, promptly provide the Buyer and any Replacement Supplier and/or Replacement Subcontractor, in writing such information as is necessary to enable the Buyer, the Replacement Supplier and/or Replacement Subcontractor to carry out their respective duties under regulation 13 of the Employment Regulations. The Buyer shall procure that the Replacement Supplier and/or Replacement Subcontractor, shall promptly provide to the Supplier and each Subcontractor in writing such information as is necessary to enable the Supplier and each Subcontractor to carry out their respective duties under regulation 13 of the Employment Regulations.
- 2.13 Subject to Paragraph 2.14, the Buyer shall procure that the Replacement Supplier indemnifies the Supplier on its own behalf and on behalf of any Replacement Subcontractor and its Subcontractors against any Employee Liabilities arising from or as a result of:
- 2.13.1 any act or omission of the Replacement Supplier and/or Replacement Subcontractor in respect of any Transferring Supplier Employee in the Supplier's Final Supplier Personnel List or any appropriate employee representative (as defined in the Employment Regulations) of any such Transferring Supplier Employee;
 - 2.13.2 the breach or non-observance by the Replacement Supplier and/or Replacement Subcontractor on or after the Service Transfer Date of:
 - any collective agreement applicable to the Transferring Supplier Employees identified in the Supplier's Final Supplier Personnel List; and/or
 - any custom or practice in respect of any Transferring Supplier Employees identified in the Supplier's Final Supplier Personnel List which the Replacement Supplier and/or Replacement Subcontractor is contractually bound to honour;
 - 2.13.3 any claim by any trade union or other body or person representing any Transferring Supplier Employees identified in the Supplier's Final Supplier Personnel List arising from or connected with any failure by the Replacement Supplier and/or Replacement Subcontractor to comply with any legal obligation to such trade union, body or person arising on or after the Service Transfer Date;
 - 2.13.4 any proposal by the Replacement Supplier and/or Replacement Subcontractor to change the terms and conditions of employment or working conditions of any Transferring Supplier Employees identified in

the Supplier's Final Supplier Personnel List on or after their transfer to the Replacement Supplier or Replacement Subcontractor (as the case may be) on the Service Transfer Date, or to change the terms and conditions of employment or working conditions of any person identified in the Supplier's Final Supplier Personnel List who would have been a Transferring Supplier Employee but for their resignation (or decision to treat their employment as terminated under regulation 4(9) of the Employment Regulations) before the Service Transfer Date as a result of or for a reason connected to such proposed changes;

- 2.13.5 any statement communicated to or action undertaken by the Replacement Supplier or Replacement Subcontractor to, or in respect of, any Transferring Supplier Employee identified in the Supplier's Final Supplier Personnel List on or before the Service Transfer Date regarding the Relevant Transfer which has not been agreed in advance with the Supplier in writing;
- 2.13.6 any proceeding, claim or demand by HMRC or other statutory authority in respect of any financial obligation including, but not limited to, PAYE and primary and secondary national insurance contributions:
 - (a) in relation to any Transferring Supplier Employee identified in the Supplier's Final Supplier Personnel List, to the extent that the proceeding, claim or demand by HMRC or other statutory authority relates to financial obligations arising after the Service Transfer Date; and
 - (b) in relation to any employee who is not a Transferring Supplier Employee identified in the Supplier's Final Supplier Personnel List, and in respect of whom it is later alleged or determined that the Employment Regulations applied so as to transfer his/her employment from the Supplier or Subcontractor, to the Replacement Supplier or Replacement Subcontractor to the extent that the proceeding, claim or demand by HMRC or other statutory authority relates to financial obligations arising after the Service Transfer Date;
- 2.13.7 a failure of the Replacement Supplier or Replacement Subcontractor to discharge or procure the discharge of all wages, salaries and all other benefits and all PAYE tax deductions and national insurance contributions relating to the Transferring Supplier Employees identified in the Supplier's Final Supplier Personnel List in respect of the period from (and including) the Service Transfer Date; and
- 2.13.8 any claim made by or in respect of a Transferring Supplier Employee identified in the Supplier's Final Supplier Personnel List or any appropriate employee representative (as defined in the Employment Regulations) of any such Transferring Supplier Employee relating to any act or omission of the Replacement Supplier or Replacement Subcontractor in relation to obligations under regulation 13 of the Employment Regulations.

- 2.14 The indemnities in Paragraph 2.13 shall not apply to the extent that the Employee Liabilities arise or are attributable to an act or omission of the Supplier and/or any Subcontractor (as applicable) whether occurring or having its origin before, on or after the Service Transfer Date, including any Employee Liabilities arising from the failure by the Supplier and/or any Subcontractor (as applicable) to comply with its obligations under the Employment Regulations.

Order Schedule 3 (Continuous Improvement)

Buyer's Rights

The Buyer and the Supplier recognise that, where specified in DPS Schedule 4 (DPS Management), the Buyer may give CCS the right to enforce the Buyer's rights under this Schedule.

Supplier's Obligations

The Supplier must, throughout the Contract Period, identify new or potential improvements to the provision of the Deliverables with a view to reducing the Buyer's costs (including the Charges) and/or improving the quality and efficiency of the Deliverables and their supply to the Buyer.

The Supplier must adopt a policy of continuous improvement in relation to the Deliverables, which must include regular reviews with the Buyer of the Deliverables and the way it provides them, with a view to reducing the Buyer's costs (including the Charges) and/or improving the quality and efficiency of the Deliverables. The Supplier and the Buyer must provide each other with any information relevant to meeting this objective.

In addition to Paragraph 0, the Supplier shall produce at the start of each Contract Year a plan for improving the provision of Deliverables and/or reducing the Charges (without adversely affecting the performance of this Contract) during that Contract Year ("**Continuous Improvement Plan**") for the Buyer's Approval. The Continuous Improvement Plan must include, as a minimum, proposals:

- identifying the emergence of relevant new and evolving technologies;
- changes in business processes of the Supplier or the Buyer and ways of working that would provide cost savings and/or enhanced benefits to the Buyer (such as methods of interaction, supply chain efficiencies, reduction in energy consumption and methods of sale);
- new or potential improvements to the provision of the Deliverables including the quality, responsiveness, procedures, benchmarking methods, likely performance mechanisms and customer support services in relation to the Deliverables; and
- measuring and reducing the sustainability impacts of the Supplier's operations and supply-chains relating to the Deliverables, and identifying opportunities to assist the Buyer in meeting their sustainability objectives.

The initial Continuous Improvement Plan for the first (1st) Contract Year shall be submitted by the Supplier to the Buyer for Approval within one hundred (100) Working Days of the first Order or six (6) Months following the Start Date, whichever is earlier.

The Buyer shall notify the Supplier of its Approval or rejection of the proposed Continuous Improvement Plan or any updates to it within twenty (20) Working Days of receipt. If it is rejected then the Supplier shall, within ten (10) Working Days of receipt of notice of rejection, submit a revised Continuous Improvement Plan reflecting the changes required. Once Approved, it becomes the Continuous Improvement Plan for the purposes of this Contract.

The Supplier must provide sufficient information with each suggested improvement to enable a decision on whether to implement it. The Supplier shall provide any further information as requested.

If the Buyer wishes to incorporate any improvement into this Contract, it must request a Variation in accordance with the Variation Procedure and the Supplier must implement such Variation at no additional cost to the Buyer or CCS.

Once the first Continuous Improvement Plan has been Approved in accordance with Paragraph 0:

- the Supplier shall use all reasonable endeavours to implement any agreed deliverables in accordance with the Continuous Improvement Plan; and

- the Parties agree to meet as soon as reasonably possible following the start of each quarter (or as otherwise agreed between the Parties) to review the Supplier's progress against the Continuous Improvement Plan.

The Supplier shall update the Continuous Improvement Plan as and when required but at least once every Contract Year (after the first (1st) Contract Year) in accordance with the procedure and timescales set out in Paragraph 0.

All costs relating to the compilation or updating of the Continuous Improvement Plan and the costs arising from any improvement made pursuant to it and the costs of implementing any improvement, shall have no effect on and are included in the Charges.

Should the Supplier's costs in providing the Deliverables to the Buyer be reduced as a result of any changes implemented, all of the cost savings shall be passed on to the Buyer by way of a consequential and immediate reduction in the Charges for the Deliverables.

At any time during the Contract Period of the Order Contract, the Supplier may make a proposal for gainshare. If the Buyer deems gainshare to be applicable then the Supplier shall update the Continuous Improvement Plan so as to include details of the way in which the proposal shall be implemented in accordance with an agreed gainshare ratio.

Order Schedule 4 (Order Tender)

Response to Question 1: Conflict of Interest

Durham University does not foresee any existing or potential Conflicts of Interest (Col) which may prohibit its involvement in this tender as an independent, impartial, and competent contract lead. Durham University has assembled a consortium of UK registered partners on the same basis, with each partner confirming ***no Conflict of Interest***.

As the Lead Partner, Durham University will monitor potential Cols and take best practice steps to avoid them. Should any potential Col arise during the contract by any of its staff or partners, Durham University will:

- 1) Ensure that any Col is disclosed to DSIT immediately.
- 2) Conduct a thorough assessment of the Col to understand the nature, potential impact, and implications of the Col for the project.
- 3) Engage with all partners, DSIT, and the SG (where necessary) to assess how the Col can best be managed.
- 4) Explore various options for managing the conflict. Such actions include, but are not limited to: implementation of mechanisms for individuals or partners to recuse themselves from decision-making or activities where a Col exists, including reassignment of tasks, roles, or responsibilities. The breadth, depth, and capacity of the team and deliberate overlap of partners for WPs 1 and 2 ensures that the team can deliver without any material impact in the event of such a risk.
- 5) Ensure that decisions relating to the management of Col are made transparently and in accordance with all relevant contracts and DSIT's requirements.
- 6) Maintain detailed records of the Col, the steps taken to manage it, and the rationale for the decisions made.
- 7) Monitor and review the situation regularly to ensure that the proposed actions to mitigate the Col are effective.

Durham University will be bound by its legal obligations under contract with DSIT and will ensure that the same conditions are adhered to by all partners through subcontracts which flowdown the same terms and conditions.

Telet wishes to disclose: (1) that it is a recipient of DSIT Grants as part of the Future Networks and Open Networks Ecosystem Programmes and (2) that it is a participant in two bids for the Spectrum Sandbox Tender.

We note that this is within the policy of DSIT.

Telet, a UK registered company, does not foresee that these engagements give rise to a conflict of interest, noting that it takes different roles and for different technologies within each Spectrum Sandbox Bid. In the event that a potential conflict could arise, Telet will implement operational policies and risk management steps to ensure appropriate separation of project staff and facilities.

TRL, a UK registered company, confirms that it does not consider that there are any conflicts of interest in the delivery of this programme of work.

London Economics is an independent UK registered company that prides itself in the integrity and impartiality of its work. London Economics does not foresee any existing engagements, commitments, or affiliations that give rise to an actual or potential conflict of interest with the requirements of this study. Throughout the duration of this study, London Economics will avoid potential engagements that present a conflict of interest and which cannot be mitigated or, where such conflict may arise, implement operational and risk management protocols to ensure sufficient separation of staff and facilities. Should any potential conflicts emerge, London Economics will promptly communicate these to the Project Manager and suggest potential mitigations for further discussion with DSIT.

Ranplan, a UK registered company, hereby declares that there is no actual, potential, or perceived conflict of interest or unfair advantage in relation to Ranplan providing the proposal submission required. If any actual, potential, or perceived conflicts of interest arise in the future, Ranplan shall inform the Project Manager and abide by the procedures outlined above.

All partners have confirmed that their organisation and staff to work on the ITT have no conflicts of interest and should a conflict of interest arise during the contract, that will be disclosed and shared with the Consortium's Lead Partner, who will manage the next steps, underpinned by a collaboration agreement between consortium partners.

Confidential information: Furthermore, all partners confirm that they shall not disclose, share, publish or use for any other purpose any Confidential Information, except as may be required in carrying out the terms of the Agreement with DIST, to any third party without the prior written consent of such providing party. Any confidential information disclosed is solely for the purposes of this Agreement.

Response to Question 2: Data Protection and GDPR

UK GDPR/DPA 2018/FoI 2000 compliance

The consortium is fully aware of, and in full compliance with, its obligations under the UK GDPR/the 2018 Data Protection Act (DPA) and the Freedom of Information (FOI) Act 2000 and staff are regularly instructed on the relevant obligations. Furthermore, all partners confirm that they shall not disclose, share, publish or use for any other purpose any Confidential Information, except as may be required in carrying out the terms of the Agreement with DIST, to any third party without the prior written consent of such providing party. Any confidential information disclosed is solely for the purposes of this Agreement.

Personal data:

The only personal data we expect to receive/collect in **WP3 by London Economics (LE)** is the contact details (email addresses and phone numbers) of stakeholders for the purpose of scheduling consultations and interviews. The data will be used exclusively for the purpose of contacting the individuals in question. We consider contact information of stakeholders (i.e., persons with a professional interest in the topic under investigation, most likely within government, academia and industry, to be of low risk. In addition, contact details for stakeholders will be drawn from existing known contacts of the consortium members and any further contacts suggested by DSIT and Ofcom. No high-risk data and no further personal information will be collected from stakeholders. LE is

registered as a data controller in the Data Protection Register of the UK Information Commissioner's Office (ICO) with Registration Number Z1010343. LE has been awarded the Cyber Essential Certificate Plus (Certificate no.: IASME-CEP-011034.). UK GDPR data collected as part of this project will be stored in the UK & Europe on LE's secure infrastructure. Access to this infrastructure is controlled and limited to known, authorised individuals only. The data will not be copied to removable media and removed from LE site without prior approval of DSIT. Processing of data will only take place on LE's corporate network, using equipment supplied by LE. Secure erasure on LE's servers is compliant with HMG Infosec Standard 5 (HMG IS5).

All other collected data will be processed in line with the Durham University Data Protection Policy which applies to all those individuals and organisations that are part of the University or that process personal data on behalf of the University including third parties. All individuals and organisations that process personal data on behalf of the University ("Data Users") shall comply with this policy and associated data protection, information security, information management and information technology regulations, policies, processes and procedures.

Third parties/subcontractors processing personal data on behalf of the University shall comply with this policy alongside any specific terms and conditions agreed contractually. Data Users must ensure that a written agreement between the parties to a data sharing arrangement is in place where personal data are shared on a systematic basis or there is a large-scale transfer of personal data. Such agreements shall, as a minimum, include:

- The classes, or specific items, of personal data to be shared.
- The source(s) of the personal data
- The objective(s) of the data sharing arrangement
- The lawful basis for sharing the personal data.
- The individuals/groups that will have access to the personal data.
- The methods by which the personal data will be transferred, including any controls for protecting the data from loss, destruction or unauthorised access.
- The frequency with which the personal data will be shared.
- Storage requirements for the personal data, including any controls for protecting the data from loss, destruction or unauthorised access.
- The parties' responsibilities for ensuring the accuracy of the personal data.
- Retention and disposal requirements
- Arrangements for enabling data subjects to exercise their rights.
- Processes and procedures for handling information security incidents.

When a Data User seeks to share data overseas, especially outside of the European Economic Area (EEA), appropriate safeguards such as valid standard contractual clauses and an assessment of equivalence must be made. It should be noted that providing access to data or placing data on a cloud service with access by others in a country outside the EEA would qualify as sharing overseas for this purpose.

Durham University shall ensure that personal data are processed in accordance with the following principles:

1. lawful, fairness and transparency
2. purpose limitation
3. data minimisation

4. accuracy
5. storage limitation
6. integrity and confidentiality
7. accountability

Subject Access Requests would be dealt with in line with the Durham University SAR policy: <https://www.durham.ac.uk/about-us/governance/information-governance/privacy-notice/subject-access-requests/> and likewise, **Data breaches** would be dealt with in line with internal policy. We have robust processes in place to make sure that any data breaches are reported within 72 hours to the Information Commissioner's Office. The University's Information Governance team administers this process. No special category data are anticipated to be gathered part of this project, however again this would be dealt with following the Durham University Data Protection policy.

Spectrum Sandbox tender (itt_51276). Response to Question 3: Skills, expertise and capacity

The Consortium brings together Durham University as lead and key industrial partners with the relevant skills, expertise and capacity to address the breadth of expertise required by the three Work Packages identified in the Tender. This includes substantial expertise in undertaking leading research consortia, mobile/Wi-Fi network development and deployment, simulation expertise to test and optimise design, economic expertise in relevant sectors, as well as previous experience working with DSIT. The consortium also brings multiple existing testbeds in key frequency bands. The existing infrastructure combined with extensive experience and expertise across the consortium mean that we can 'hit the ground running', thereby ensuring the project is set-up for success from the get-go. The organogram below visualises the consortium governance structure and highlights the key contribution (in terms of days and involvement in the project) and skills/experience of all consortium members. Each individual partners contribution and skills are also further outlined below.



WP1 and WP2 Contributions

Durham University: the Centre for Communication Systems (CfCS) will lead the consortium. Established in 1988, the CfCs delivers policy relevant research across all areas of wireless systems, including HF links, and UHF to sub-THz bands for mobile communications in addition to sea state and through wall imaging radar. The Centre is well equipped to support this study, possessing unique facilities which include extensive radio channel data sets and measurements capability from 0.6 to 300 GHz for various deployment scenarios in indoor and outdoor for both mobile and fixed links, in addition to a large anechoic chamber for antenna measurements and calibration of radio systems. [REDACTED], is assigned Project Manager and will dedicate 3 days per week throughout the duration of the study. [REDACTED] will coordinate between partners, supervise and coordinate with the research team and the technical staff at Durham University for field trials, ensure the smooth running of the programme, Quality Assurance of all deliverables, liaise with DSIT, and ensure that sufficient resources are available to deliver the study to schedule. The allocation of 3 FTE days of [REDACTED] time ensures the overall project Lead has sufficient time to effectively manage the study and consortium. In addition, [REDACTED] will be supported by 2 days of technical staff, 2 days of research staff time, and 2 days of management staff per week.

CV: [REDACTED]

Telet: Telet is a mobile network operator with testbeds in several frequency bands, including 3.8-4.2 GHz, 2.4 band 38 WiFi band and band 3 in the 1.8 GHz band. It is envisaged that if this bid is successful that the testbed will be upgraded to the upper 6 GHz band identified in the World Radiocommunications Conference, December 2023 to support **WP1**. Telet is the largest successful applicant using the OFCOM shared spectrum process for Local Access Licences and holds significant Shared Access Licences. It is leading a £14m DSIT Open Networks Ecosystem Project "ONE WORD" which will deliver 5G-NR networks in 5 UK cities.

CV: [REDACTED]

TRL owns the Smart Mobility Living Lab (SMLL) in London which is a purpose built advanced, connected testbed, using public roads in London that enables the development, testing and trialling of new mobility and connectivity technologies. The test environment is configurable, extensible, and technology agnostic enabling work with a wide range of different stakeholders, and technology concepts. The facility is underpinned by long-term independent research credentials

which is now in its 90th year of existence – this has included the extensive work with the UK government and internationally developing regulatory research and the evidence to underpin major policy and legislative changes. The SMLL lab uses two London settings to create a complex public testing environment, with 24 km of heavily instrumented public roads which provides a representative and technologically challenging cityscape. The SMLL testbed is enabled by a unique and sophisticated infrastructure, roadside monitoring equipment, technology connectivity using a range of protocols (private fibre network, 230 roadside WiFi access points, DSRC, LoRaWAN, indoor private 5G network etc.), an extensive data platform, data centres, and a complex road environment create a complete and challenging real-world urban testbed. This is underpinned by a digital twin with linked real-time data generated by roadside infrastructure and connectivity. The project lead at TRL is [REDACTED]. TRL's will draw on its recent experience of implementing telecoms networks in complex urban environment, from the Nissan-led ServCity project for the deployment of connected and automated vehicles in London where TRL optimised the 5 GHz WiFi and 5.9 GHz 802.11p DSRC networks to deliver highintegrity connectivity & data services with the measurement results shared with stakeholders (HMG, Nissan).

WP2: Ranplan Wireless Network Design Ltd (RWN) (<https://ranplanwireless.com/>) is based in the UK and a subsidiary of the Ranplan Group AB, listed in NASDAQ First North, Sweden. RWN is a research-intensive innovative SME whose customer base includes world's leading mobile network operators (MNOs) and all of the top 5 world's largest telecom equipment manufacturers. As its "green cell" logo demonstrates, RWN software solutions can help mobile operators, venue owners and enterprises to enhance both spectrum and energy efficiency of their radio access networks, and reduce CAPEX & OPEX by 20-30%, resulting in more efficient use of resources and reduced CO2 emissions. Since 2008, RWN-UK has participated in 23 R&D projects funded by the European Commission (EC) FP7/H2020/Horizon Europe, Eurostars and InnovateUK collaborating with 30+ international partners. The lead at Ranplan will be [REDACTED]. Ranplan will bring in Ranplan Professional and Maxwell which are key tools for the simulation in WP2. Ranplan Professional® can model the detailed building structures in 3D and material electromagnetic (EM) properties of typical office buildings and complex structures such as stadiums, stations and airports. Ranplan Professional is integrated with Ranplan-Maxwell that models how radio waves propagate in complex, built environments to analyse and predict propagation of various networks including 5G & 6G. Ranplan-Maxwell uses true multiple-path 3D ray tracing/launching algorithms which are suited for the simulation and modelling of WP2.

CV: [REDACTED]

WP3: London Economics: WP3 will be undertaken by **London Economics (LE)** who are a leading economics consultancy. The proposed LE team for this work will be led by three senior members of staff who have extensive experience in impact assessment, the economics of communications, in satellite communications and in assessing the economic contributions of spending and policy measures in the advanced technology sector. LE has undertaken dozens of studies investigating the economic impact of new technologies, policies, and regulatory regimes, and assembling robust evidence to underpin HMG business cases. LE has undertaken Green

Book compliant economic appraisals in a wide range of contexts including for DCMS on the potential impacts of policies to enable the development of next generation telecoms technology in quantum networking, open RAN, internet of senses and net zero telecoms infrastructure; advice to the UK Space Agency on the potential economic benefits of a strategic investment in satellite infrastructure; and an assessment for a consortium of operators of the evidence showing the benefits of increased flexibility and liberalisation in future European radio spectrum management. LE has also participated in the investigation of international approaches to regulating 5G spectrum and associated services; and multiple studies on the satellite communications market, including review of the future ecosystem and case studies on the communication needs of Consumer Broadband, IoT, Autonomous Vehicles, 5G, Drones, and Critical National Infrastructure. LE has worked with multiple stakeholders on occasions and, using that experience, will bring a familiarity with key data sources and methods, an understanding of the different stakeholder perspectives; and the need to be clear about uncertainties and the key factors that may change anticipated outcomes. LE will dedicate 190 days to address the various aspects of WP3.

Contract Delivery & Continuity of Service: The consortium has carefully considered the requirements and timelines for this project. We have allocated appropriate resources to ensure that the project runs smoothly from inception to delivery of final deliverables. All the partners have managed R&D projects and have the relevant expertise in working with their team & consortia. This is reflected in the proposed activities in WPs 1 to 3 where the time scale of the project and the feasibility of delivery have been carefully considered. The lead partner, REDACTED has coordinated with the University to ensure that she can commit the required time (3 days / week) on this research project. The workshops at Durham have technical staff to deliver on the required experimental upgrade and support. Similarly, all the industrial partners have a deep bench of supporting staff with relevant expertise. In case of absence, the tasks allocated to each partner will be revisited if rescheduling is needed to ensure timely delivery. We have proposed a large consortium with a sizeable team involved from each partner. Moreover, key work-packages (WP1 and WP2) are covered by multiple consortium partners. This means that temporary or permanent absence of staff members will not have major impacts on delivery of the project timelines. The project manager, REDACTED, will ensure that the resources of the consortium are properly allocated throughout the research project to guarantee the ongoing quality and delivery of all outputs in line with this plan. REDACTED will monitor progress towards agreed milestones internally weekly so that necessary corrective action can be taken rapidly. As such, risk of project slippage or quality-related issues will be detected and escalated as early as possible and appropriate action taken.

Ofcom confirmation regarding licence requests:

REDACTED

Response from REDACTED

REDACTED

Addressing Ofcom's final response

Telet currently has n77 licences in the Bath area and in the process of applying for a licence in their laboratory facility. Telet will also apply for a licence for the Greenwich route and in the event Telet cannot trial in London, they will trial in Salsbury and South Wales area. They can also operate the receivers in a passive mode to assess the spectrum occupancy. Therefore, the risk of being unable to deliver on the ITT is low. Similarly, the risk of not being able to apply successfully for new licences is low. We will also communicate with Ofcom regarding outdoor short-range measurements in the upper 6 GHz band and outdoor to indoor for possible sharing the spectrum in different deployment scenarios.

Response to Question 4: Objectives

Pairs of Systems to be investigated.

The consortium will address the following pairs identified in the Tender

Spectrum pair*	Specific scenarios to be tested	Strong justification for scenarios (elaborated further in the text below)
(1) WiFi and Mobile	Indoor and outdoor	Mobile coverage is indoor and outdoor, and WiFi can provide coverage mostly indoor but can also provide coverage outdoor to a limited range. As the spectrum is a scarce national resource, the current approach of awarding national, multi-year licences to the highest bidder has resulted in a restricted deployment environment where licence holders effectively deploy services in the areas that are profitable, but then actively exclude others from using that spectrum in other, typically more rural areas, by way of their "squatters rights". A number of UK MNOs are now on record as having said that they cannot afford to deploy nationwide 5G-NR services. If more cellular spectrum was available to a wider pool of participants on a low-cost "first come first served" basis, then we would see greater deployment of private cellular solutions and wider coverage in the areas that citizens require it - as can be seen in the USA, with 100x more deployments in CBRS than the UK has in its "Shared Spectrum" regime. Equally, it is acknowledged that to roll out national networks, the licence holder does need long term certainty of available spectrum in order to secure an ROI on their investments and to procure relevant equipment.
(2) Independently Operated Private Networks	Indoor and outdoor	Transitioning from a manually assigned, annual licence in a fixed location to a dynamically assigned, shorter term licencing solution would enable new market opportunities to be explored, such as events, disaster response and mobility applications. Current approaches to ensuring sufficient guard space between shared licences appear to be over-cautious and therefore real-world measurement will likely give rise to improvements in spectrum utilisation.
(3) Mobile and fixed link	Fixed terrestrial radio point to point and point to multipoint networks and mobile	Fixed terrestrial radio networks tend to cover wireless systems that operate between two or more fixed points. They tend to use directional antennas and operate across a wide frequency range from 450 MHz to 84 GHz. The lack of mobility of fixed links should provide the potential of mobile radio networks to share the spectrum with limited interference. Durham University under Ofcom contract 1362, conducted measurements over fixed links in the mm wave band to study the impact of precipitation on such links, the potential of scattering which can lead to interference. The data from Durham will be used in the Ranplan tool to study the potential of sharing the spectrum with minimum interference.
(4) Ultra-Wide Band (UWB) and mobile	Spread spectrum UWB radar for through wall imaging and potential interference to mobile radio networks	UWB radar for throw wall imaging requires bandwidths on the order of GHz which cover a wide range of frequency. However, spread spectrum techniques enable the use of low peak power with the potential of low interference with other services such as mobile radio networks. It is therefore, important to study the potential interference of UWB radar with mobile radio networks. This can be studied via simulations using Ranplan tool and the results of the waveform design of radar signals conducted at Durham supported by Durham's building and wall penetration loss measurements
(5) Receiver-only users (such as scientific applications) and mobile	Mobile radio network in the vicinity of scientific astronomical receivers	Scientific radio receivers are used for a number of applications such as astronomy where the received signal levels are very low and hence tend to be protected. Several frequency bands are usually reserved such as the 1.420 GHz band used by many radio telescopes and other probes can cover several frequencies in the mm wave bands. The impact of interference on such probes sharing with mobile radio networks will be assessed using WP2 simulation tool

*Dynamics spectrum sharing techniques for Pairs (1) and (2) will be implemented in the Telet and TRL testbeds (WP1) and Ranplan's simulation & modelling tool (WP2). Sharing techniques for Pairs (1), (3), (4), and (5) will be implemented in the Ranplan tool.

Spectrum sharing techniques, such as dynamic spectrum sharing implemented by Ericsson to enable the move between 4G to 5G, include time sharing for time division duplex (TDD) and frequency sharing for frequency division duplex (FDD) where spectrum sensing identifies spectrum holes that can be used by other users. The frequency bands targeted in the Ericsson deployment were the 800 MHz, 1.8 GHz, and 2.1 GHz spectrum for FDD and the 2.3 GHz, 2.6 GHz and 3.5 GHz for TDD. In contrast, for the first two identified pairs (WiFi and mobile, and independently operated mobile networks) we will make use of testbeds available at Telet and TRL in the n77 band at 3.8-4.2 GHz (identified by Ofcom as shared access licence), 5.4-5.8 GHz band and in view of the latest frequency bands identified in the World Radiocommunications Conference, December 2023 (WRC2023) we aim to upgrade the testbed at Telet to the 6.4-7.1 GHz band to be used for this research. Telet would then deploy a laboratory test environment, which delivers a pseudo real-world 5G small cell in the 6 GHz band, along with a commercially available WiFi 7 in the 5.925 to 7.125 GHz band and would provide analysis of the impacts of interference of the two technologies at different frequencies and power levels. The modelling of WiFi and Mobile, will also be implemented in the Ranplan tool making use of the testbed results and the propagation measurements from Durham University to ensure accurate modelling of received signal strength in current frequency bands and the identified frequency band in WRC2023. In addition, Ranplan tool will be used to assess the sharing strategy for fixed links and mobile, UWB and mobile and

receiver only users and mobile. This proposed approach offers significant value to DSIT as it leverages existing infrastructure (complimentary testbeds from two partners) and software (Ranplan's pioneering simulation and modelling), prioritises limited resources, and **ensures the testing of five out of nine spectrum pairs** targeted by DSIT in the most cost-effective manner.

Implications for regulation and better use of UK spectrum

In Ofcom's spectrum roadmap, three sharing strategies were identified: time sharing by 'listen before talk' strategy as in WiFi technology, geographic sharing when the allocated spectrum is not used in a particular geographic area and frequency sharing in the same band when the band is free or limited interference is expected. Several frequency bands extending up to the THz band and applications have been addressed in the spectrum roadmap covering various services. The spectrum is a scarce resource and although the WRC2023 identified frequency bands above 100 GHz with high bandwidths to enable high data rate transmissions, the lower frequency bands continue to be in high demand due to favourable propagation properties which enable wide coverage, thus requiring less infrastructure and fewer base stations. The lower frequency bands also suffer from lower penetration loss into buildings, and less attenuation and scattering from rough surfaces, and precipitation over the link. Other effects on the higher frequency bands include human blockage and the need for additional reflecting surfaces to avoid continuous interruptions of the link. Hence, industry has been considering the 7.25-24.25 GHz (Upper mid-band), with recent emphasis on the upper 6 GHz band (6.425 to 7.125 GHz) following the WRC2023. Traditionally, regulators have auctioned the spectrum to mobile network operators which leads to a large deployment of spectrum in busy/congested areas, but a thin layer deployed nationally, which can block other users and applications from deployment. The highly congested spectrum is now being revisited to enable sharing between services for example using the same base station to transmit 4G and 5G by sharing the spectrum in time or in frequency as proposed by the Ericsson Dynamic Spectrum Sharing solution. Cognitive radio approaches have also been investigated and found to suffer from propagation effects where the received power at the cognitive radio is low when there are users on the channel.

Hence, appropriate solutions which would enable additional localised deployments, whilst limiting interference to the primary user are needed and if identified would lead to a more efficient use of the spectrum with new technology and improved communication links performance and high data rate. Spectrum sensing measurements performed by Durham University across several bands (TV bands, WiFi and 3G) will be used to evaluate the time, frequency and spatial sharing strategy supported by the testbed measurements in WP1 and the modelling in WP2.

From the regulatory perspective, spectrum sharing needs to ensure that the licenced bands are not suffering from interference with the proposed shared strategy and robust solutions are found for sharing. The regulator can also enable the sharing of the spectrum for specific pairs as in the tender or enable the use of the same spectrum between different generations of mobile radio networks. To ensure appropriate services are provided, the sharing strategy needs robust propagation models considering the possibility of deep fading leading to interference. Frequency bands such as for radar and scientific research need to be considered very carefully by the regulator as these frequency bands need protection for safety.

The proposed pairs have not been tested previously although Durham University has previously conducted occupancy and propagation measurements in typical testbeds e.g. EU CREW project which aimed to study cognitive radio across several bands below 6 GHz.

Thus, the proposed approach in the consortium to upgrade the frequency band of the testbeds and to conduct propagation measurements to support the simulation tool of Ranplan will provide a rounded approach to enable the appropriate sharing strategy, to be identified in time, frequency and space.

Potential benefits for the UK and impact on international standards

High data rates and reliable communication networks are a core part of a modern economy and the demand for data in all sorts of new applications creating rapidly increasing demands on spectrum. Spectrum is a finite (though reusable) resource and governments need to ensure that this resource is allocated in a way that is most beneficial for society. Increasing the efficiency of spectrum use through spectrum sharing offers a novel opportunity for improvement.

We have chosen to test system pairs where the demand for spectrum is currently high, or expected to be high in future. For example, demand for use of the upper 6 GHz spectrum from the mobile sector for 5G services and from the WiFi sector is high – its properties make it desirable for both uses. The GSMA and the WiFi Alliance have both argued – in a global context – that this spectrum band is crucial for the development of their services and for achieving the high levels of economic value that downstream services. Independent research for the UK Government has suggested that mobile and WiFi make GVA contributions to the UK economy of several billion pounds.

Ideally, a hybrid approach would enable many of these benefits for both 5G and WiFi to be achieved from the finite upper 6 GHz spectrum resource, but with limited offsetting costs in terms of interference or any loss of economies of scale in equipment production. This means that the potential economic and other benefits from successfully achieving a hybrid approach in this manner are huge.

UWB transmission provides short range communication, but it is a technology used for radar applications such as through wall imaging and ground penetrating radar for rescue operations. Since UWB transmissions for radar applications are currently restricted to the frequency band around 8 GHz with higher penetration loss than lower frequency bands, coexistence of UWB sensing radar with mobile radio networks will be valuable. Other pairs that are of value are the scientific bands which are usually safeguarded and the co-existence of fixed links for backhaul communications and mobile networks.

The focus of the research will be on technical methods, tested in WP1 and WP2 which are likely to include dynamic spectrum sharing. In addition - in WP3 - we will review and highlight additional wider barriers and implementation issues (based on desk research and stakeholder interactions) such as the potential for more automation of processes to provide information on spectrum availability and streamlining and speeding up of licence application processes.

By exploring the extent to which technical and regulatory mechanisms for sharing spectrum can work successfully, the research will contribute to building the evidence base to support Ofcom and DSIT's continued working with international partners, following the WRC-23 outcomes - to encourage wider use of sharing approaches beyond the UK. Consistent approaches across borders help achieve economies of scale in the production of the relevant equipment and encourage innovation, enabling the faster development of new technology such as, for example, automated sensing of spectrum gaps in real time, reducing the guard bands between services and the potential of co-located services.

Durham University will work with Ofcom to present the relevant results of the propagation measurements and models to the ITU SG3 in preparation for WRC 2027. The outcome of the study has been identified by the ITU with the expectation of input by December 2024. Hence, it is of absolute importance to conduct these measurements and present the UK results to the international community in a timely manner.

Spectrum Sandbox tender (itt_51276). Response to Question 5: Methodology

Durham University (DU), Telet, TRL, Ranplan Wireless (RW), and London Economics (LE) deliver a combination of specialist expertise, multiple & diverse testing facilities, resources, and capacity to deliver all Work Packages (WPs) within the 12-month timeframe required by DSIT. This consortium will assess **five spectrum pairs**, two via the testbed (WP1), and all five via simulations in WP2, as detailed in Q4. DU is adequately equipped with extensive radio channel data sets and measurement capabilities from 0.6 to 300 GHz, while Telet and TRL together offer lab/test

environments in Bath and London (Smart Mobility Living Lab). **These facilities are privately owned** and enable the testing of two spectrum pairs: 1) WiFi and Mobile in the upper 6 GHz Band, and 2) Independently Operated Mobile Networks. **Access to the physical testing infrastructure is guaranteed.** The bid will enable the Bath testbed to be upgraded to the 6 GHz band, but consortium otherwise **offers 'ready to go' infrastructure.** The two test facilities offered by the consortium ensures capacity & redundancy. This WP1 offer will be complemented by RW's pioneering RAN optimisation tools and expertise to develop comprehensive modelling and simulation software to assess spectrum sharing solutions (WP2), and LE's cost-benefit analysis, HMT Green Book, telecom market expertise to generate an independent & robust evidence base. **Data confidentiality:** the consortium is aware of and in full compliance with the UK GDPR/2018 Data Protection Act and Freedom of Information Act 2000. No personal data will be collected under WP1. The only personal data to be collected is the contact details of stakeholders in WP3 for interviews, exclusively for this purpose. LE is registered as a data controller with the UK Information Commissioner's Office and has been awarded Cyber Essential Certificate Plus. All other collected data will be processed in line with DU's Data Policy. DU will offer specialist project management resource. Each consortium member has access to a pool of alternative staff to offer additional capacity in case of staff absence.

WP0: Project Management & Quality Assurance: DU will organise a Kick-Off Meeting ('KOM') to discuss and agree on the scope and methodology, deliverables, timeline, working arrangements (contacts, communication, meetings), DSIT inputs, and to initiate the project. Our assigned Project Manager (PM) will share detailed minutes for review. Ongoing project management activities will ensure close coordination across the consortium and that inputs are produced at the required quality and time, keep the client updated at weekly progress meetings, and that project objectives are fully addressed. Weekly internal meetings will be scheduled between the PM, Work Package (WP) leads, and key consortium staff to ensure close co-ordination throughout the study and the early identification of risks. Regular meetings will be organised by each WP team. The PM will maintain a risk register and review this in meetings with DSIT. For Quality Assurance (QA), each WP lead will review the outputs of their WPs, before further review and comment by the PM and other consortium members. Drafts will be submitted to DSIT once internal comments have been addressed.

WP1: Practical Measurements via Spectrum Sandbox

Task 1.1: Planning: A planning phase for WP1 will be conducted with the goal of establishing a clear and coherent set of test activities to be delivered collaboratively by TRL, Telet and Durham such that the results can be utilised in WP2 and WP3. The planning phase will consist of:

1. R&D plan – an R&D plan will be developed which details: (a) the basis and rationale for the sharing

solutions to be tested, and (b) the overall design of our approach to conducting field measurements as well

as expected performance levels. This provides context and a reference for the study, for both the project

team and for DSIT and key project stakeholders. This will be a live document, and will be revisited should

the overall R&D plan necessitate a change of direction.

2. Test plan – a test plan will be developed with input from TRL, Telet and Durham. This will support collaboration between the various test activities, and establishes common approaches to generating test evidence. The test plan will detail (a) the specific systems under test and their implementation; (b) the conditions under which they will be tested, (c) the spectrum parameters required, (d) the field measurements that we expect to conduct, and the approach to evaluating performance). Note, in WP1 it is intended that the field measurements utilise the outputs from the networked test devices themselves.

3. Licence acquisition activity driven by R&D plan. This has already been initiated with Ofcom (see Q4). The measurements will be performed using testbeds provided by Telet and TRL. Telet is a new mobile network operator, focused on delivering 5G Mobile Services in Band 3 (1800 MHz) and Band n77 (3800-4200 MHz) with an interest in operating in the upper 6 GHz bands. Through

involvement in various DCMS/DSIT 5G R&D Programmes, as well as commercial deployments, Telet operates n77 based 5G mobile networks around the UK, including Liverpool, Llanthony, Chalke Valley and a lab and test environment in Bath. We propose that the solution is a form of dynamic spectrum sharing, so that a private network can turn on, scan for available local spectrum and via coordination with a central system, agree a “lease” of spectrum that can be used. If a primary licence holder comes along, then the lease can be revoked and the equipment will repeat the process, rescanning and generating a new lease. As an entirely automated process, we expect it would reduce the current time taken for licence application from months & years (in the case of Ofcom local access licencing) to minutes, which would represent a very significant cost saving and enable more networks to be built more quickly. Initial spectrum scanning and centralised coordination systems were initially demonstrated in the “5G New Thinking” and “Best of British” DSIT 5G R&D Programmes. We would leverage this technology investment in our testbed environments. To test this hypothesis, we will conduct tests for two pairings:

Task 1.2 WiFi and Mobile in the upper 6 GHz Band. In 2023 the World Radiocommunications Conference identified the frequency band 6.425-7.125 GHz-designated for 5G Mobile usage, whilst WiFi 7 can operate in 5.925 to 7.125 GHz, thus there is the strong possibility of interference. In the Telet/DSIT “Best of British” project, cellXica, a UK 5G base station manufacturer developed the “M5Q” integrated 5G small-cell, and a key component of this was the SC7 processing board, which is a software defined radio platform that (without filters) can operate up to 10 GHz. **Test environment set up:** Telet would deploy a *lab test* environment, which delivers a pseudo real-world 5G small cell in the 6 GHz band, and a commercially available WiFi 7 deployment. Telet will provide analysis of the impacts of interference of the two technologies at different frequencies and power levels. **Test execution:** The SC7 board (Fig. 1.a) can scan its environment and report on other networks operating in the same frequency band, enabling the initiation of a scan on cell startup, coordinate via API with a spectrum allocation system and then select the specific operating frequency. In addition, the custom designed multiple-band radio channel sounder at Durham, which covers (0.6-1 GHz, 2.2-2.9 GHz, 4.4-5.9 GHz, 12.5-18 GHz and several mmWave frequency bands (25-30 GHz, 39-42 GHz, 50-75 GHz, 60-90 GHz, 110-170 GHz and 220-330 GHz) will be upgraded to cover the upper 6 GHz band to conduct measurements in typical deployment scenarios to develop suitable propagation models to be used in WP2. The radio capabilities at Durham include multiple RF heads at 2.4 GHz, 3.5 GHz and 5.8 GHz with MIMO capability in the 2.4 GHz and 5.8 GHz bands. Measurements conducted in various deployment scenarios (incl. rural, dense urban and suburban, indoor and outdoor to indoor) will be identified to aid in WP2. The radio sounder at Durham can be operated in the passive mode to monitor the spectrum including multiple RF heads that can rapidly scan a wide bandwidth and capture WiFi signals and frequency hopping signals as illustrated in Fig.1.b, c. Durham has the capability to measure material properties that can be used in WP2.

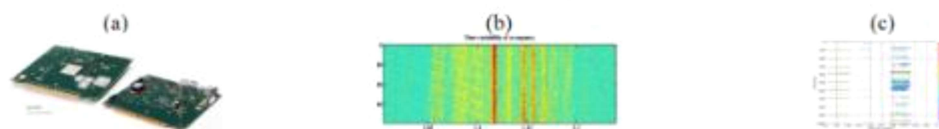


Figure 1 (a) SC7 board, spectrum occupancy with Durham sounder (b) 3G bands and (c) WiFi

Task 1.3 Independently Operated Private Networks: A key aspect of independently operated private mobile networks is, again access to spectrum. At present OFCOM permits use of the upper n77 band, but other bands, such as band 3 or b42 (per CBRS) have much wider propagation characteristics and are more widely supported. Therefore, if it was possible to support a form of dynamic spectrum sharing, as outlined above, for a wider range of bands, the UK could see deployment of lower cost and more widely available private cellular networks. **Test environment set-up:** Therefore, Telet will deploy a 6-10 cell test bed 5G small cell network, using the cellXica M5Q radio working in conjunction with the TRL’s Smart Mobility Living Lab in London, which is a purpose-built test network in the Greenwich area to enable the development, testing and trialling of new mobility and connectivity technologies. We will configure the cells to operate on a range of competing frequencies within the upper n77 licenced band. **Test execution:** A baseline data

collection activity will be conducted to measure aspects such as the noise floor in the deployment environment, the existing interference levels, etc... The project will use its scan + dynamic configuration approach to determine the level of interference and demonstrate a self-organising cellular network which then ensures that all parties can operate harmoniously - using real world experience. We can then contrast this to the theoretical modelling that OFCOM does in licence allocation, which will then help us understand how the licence application process may be further optimised to balance availability and interference. Real-world measurements will be conducted at a device level capturing: the following KPIs: Throughput (download/upload); Latency; Packet loss using a 1ms ping interval; Received signal strength. The number of connected devices (UE), transmit power of the base station and frequency of transmission will be varied in the measurements.

Task 1.4– Data sharing Platform Proof of Concept (PoC): Discovery & design phase:

To underpin the development of the Data Sharing PoC, we will conduct:

1. A design exercise to develop the performance metrics that we intend to capture for each test device and spectrum pair as part of this Data Sharing Platform PoC. This will include selection of the most appropriate metrics for the OSI layers, to build a view on the performance of the sharing approach.
2. A specification for the Data Sharing Platform will be prepared to support the creation of the Data Sharing Platform PoC. This will be informed by stakeholder engagement activity to build on the end user requirements (note, we will agree a target stakeholder list with DSIT and Ofcom during the design phase) and will incorporate elements such as the targeted user stories for subscribing to particular data sets/services/reports, reporting formats, and visualisation of the output.
3. An interface specification will be established to identify how the Data Sharing Platform will access the required OSI layers for each test device. Note – our proposed approach is to build on an existing solution that TRL currently uses to monitor the connectivity service infrastructure at SMLL, and which additionally is used to provide project stakeholders with access to this data in real-time.

Development phase: The Data Sharing Platform PoC will be developed, drawing on the real-time outputs from the individual test devices (e.g. using the Signal Guru interface for Telet's equipment) which will be compiled to deliver real-time access to the range of the design requirements. Additionally, examples of pre-processed metrics will be developed to provide a macro view of network performance. A phase of iterative testing in sprints will be conducted by TRL to validate the implementation against the design specification.

Demonstration and reporting phase: We will provide DSIT and Ofcom with: (a) access to the Data Sharing Platform PoC; (b) and will facilitate 'walkthrough' workshops to familiarise stakeholders with the design and implementation of the PoC; (c) we will share lessons learnt regarding the future use and implementation of such a platform at scale (e.g. design, technical operation, key considerations on the downstream use of the data); and (d) a report on the potential for sharing use and interference data.

Task 1.5: Test Reporting

A test report will be produced drawing on the results compiled from the Field Tests conducted under Tasks 1.2 & 1.3. This will contrast the baseline performance of the network equipment under 'typical' operation, relative to its performance under more intensive spectrum sharing. The curated data sets of the field measurements will also be provided. The mechanism for data sharing with DSIT/Ofcom will be agreed.

Deliverables for WP1 by Durham, Telet and TRL		Month
D1.1	Request approvals from Ofcom	0
D1.2	Request approvals from Gov. departments	0
D1.3	R&D report detailing the design of the sharing solutions to be tested	11
D1.4	Test planning, setting out which systems will be tested, etc.	3
D1.5	Test report, setting out detailed results	9
D1.6	Report and proof of concept demonstration on potential of sharing	11
D1.7	Archive of performance measurements	12

WP2: Assessment of Scalability and Impact Through Simulation and Modelling: Modelling and simulation to assess the spectrum sharing strategies for 5 identified pairs: WiFi and Mobile, Independently Operated Mobile Networks, Mobile and fixed link, Ultra-Wide Band (UWB) and mobile, Receiver-only users (such as scientific applications) and mobile.

Task 2.1. Upgrade Ranplan cross-system simulation module for simulation and modelling of spectrum sharing

We will upgrade Ranplan Professional to model and simulate spectrum sharing solutions, with the capabilities outlined below. Fig.2 shows the developed cross-system framework for WiFi and mobile scenarios, where considered cross-system algorithms are (i) Cellular & WiFi (load-Based): Access is performed based on the load, and part UEs are served by WiFi Aps and (ii) Cellular & WiFi (Coverage-Based): Access is performed based on the received signal power criterion. The upgraded simulation tool will be tailored for spectrum sharing dynamics, with capabilities including:

(1) Scenario Modelling: recreate complex radio environments (urban, rural, mixed) with realistic propagation models and with particular geo-types; (2) User & Device Modelling: Simulating varying user densities, traffic patterns, device types, and mobility characteristics; (3) Spectrum Occupancy Modelling: Capture accurate incumbent (primary) user behaviour across different bands of interest; (4) Network Modelling: Implement flexible network infrastructure (macrocells, small cells, distributed units) for different technologies. We will research and develop a spectrum sharing simulation module with functions that can be used to assess key performance, including: 1) Network deployment cost improvement with desired coverage, capacity & quality of experience, (2) Network performance & QoE improvement for a given cost, and 3) efficiency improvement.



Task 2.2. Enhance Ranplan-Maxwell Propagation models to aid a wider spectrum range simulation

In this task, we will enhance Ranplan-Maxwell, a world leading radio propagation engine, to suit a wider spectrum range simulation. We will first collaborate with WP1 focusing on practical deployments and field measurements and develop the automatic calibration module of propagation model using the extensive data measurements conducted by Durham University across multiple frequency bands and propagation measurements and models in the new upper 6 GHz frequency band. In addition, measurements to refine the materials properties and environment factors will be conducted by Durham University as needed to refine the planning tool. Second, we will research the sensitivity of measured parameters from WP1 under the limitation of practical tests and develop a calibration algorithm to a wider range spectrum and other frequency bands.

Task 2.3. Simulate and verify the spectrum sharing solutions for the tested pairs: In this task, we will simulate the performance of spectrum sharing solutions for WiFi and mobile and independently operated mobile networks, and compare with the tested results from T1.1 and T1.2 in WP1 to verify the accuracy of the network modelling and propagation model;

Task 2.4. Simulate and evaluate the spectrum sharing solutions for other identified pairs: In this task, we will simulate the performance for fixed links and mobile, UWB and mobile and receiver only users and mobile to assess the spectrum sharing strategies.

Task 2.5. Develop AI-based spectrum sharing solution and associated APIs: In this task, we will research and apply machine learning (ML) to optimize spectrum allocation and interference management based on user densities and activity, traffic pattern, and will also develop an API so that users (6 G researchers) can also develop their own spectrum sharing solution. Finally, we will

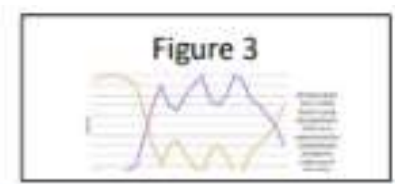
develop APIs to connect the spectrum sharing simulation module with Ranplan Professional to enable researchers to assess the outcomes arising from the intensive spectrum sharing.

Deliverables for WP2 by Ranplan and Durham		Month
D2.1	Simulation and modelling setting out details of system and parameters	7
D2.2	Simulation and verification of spectrum sharing solutions for the tested pairs	9
D2.3	Simulation and evaluation of spectrum sharing solutions for other identified pairs	10
D2.4	Data catalogue, listing all input data and parameters	11

WP3: Economic assessment and regulatory consideration:

Task 3.1: Scoping: Finalise the economic framework, define the key data to be collected from WP1&2, and agree the scope of case studies to be assessed across the spectrum pairs. The first task will confirm the methodological approach for WP3 (outlined here) within the first month of the study. This will include a list of output data from WP1&2 that need to be assessed to provide key inputs into WP3. The finalised approach will be accompanied with a description and set of assumptions for the case studies that will be assessed. It is assumed that each case study represents a defined scenario for the use of spectrum for each spectrum pair. Since spectrum use varies by location, time, and user density even within a defined spectrum pair, it is important to define a concrete case study scenario that includes a definition of the geographical scope (location, area, urban/rural), time period of analysis (time, peak/off-peak, today/future), the specific user scenario, and other key parameters. A long list of scenarios will be defined by the group and a shortlist of four will be selected after discussions with the consortium and DSIT and based on several criteria including: 1) potential impact of spectrum sharing; 2) potential replicability of scenario conditions by testbed; 3) availability of data to support impact measurement, and 4) regulatory/policy interest. The 'counterfactual scenario' (the impacts expected in the absence of spectrum sharing), and the 'intervention scenario' (i.e. the outcomes expected with the sharing proposal) will be defined for each case study so that the net impact can be assessed.

Task 3.2: Counterfactual analysis: Characterise the counterfactual for each case study, including detailed analysis of the expected evolution of demand and supply for spectrum. To assess the additionality of the spectrum sharing intervention, its impact must be compared with the impacts under the counterfactual (currently the default scenario). Task 3.2 will assess the counterfactual evolution of demand and supply for spectrum for each case study and how it is expected to evolve over time. The use-case specific assessment will include: 1) a definition of relevant applications competing for spectrum within the relevant pair's spectrum band; 2) a definition of the users of each application; 3) a qualitative outline of key market dynamics for the spectrum band (market, technology, regulatory); 4) a definition of the user requirements for each application, including bandwidth, spectrum, interference, and redundancy; 5) estimation of total spectrum needs ($= \text{No. of users} \times \text{Average spectrum req.}$) for each application and its evolution over a 24 hour period, and 6) assessment of the current method for spectrum allocation. A comparison of spectrum demand (5) with supply (6) for each application within the case study will establish the extent to which the current method of spectrum allocation (the counterfactual) adequately services the needs of different applications and will help identify opportunities to optimise this in a way that will be tested in WPs 1&2. This approach will allow us to estimate 'total spectrum utilisation', or the total volume of demand that is supplied with spectrum across all applications, and to identify periods where priority applications are underutilising the spectrum as in Fig. 3



Task 3.3: Intervention analysis: For each case study, develop shared spectrum scenarios, assess potential impact on spectrum utilisation, and develop policy options for enabling shared access. This task will assess alternative spectrum access schemes to improve total spectrum utilisation for each case study. The design of these schemes will be informed by the outputs of Task 3.2 (estimates of spectrum utilisation and application-level demand), technical constraints (WP 1&2), policy & regulatory priorities, and economic considerations and will include a qualitative justification for the proposed approach. Once these alternative access schemes are tested in WP 1&2, this task will record changes to the total spectrum utilisation for each case study. The final

task will involve desk-based research to articulate policy & regulatory options for implementing the most impactful shared access scheme that is identified for each case study.

Task 3.4: Stakeholder engagement: To validate counterfactual, inform proposed shared access schemes, and get feedback on potential policy/regulatory tools to implement approach. LE proposes to engage with 20-30 stakeholders across the case studies to validate the analysis in Tasks 3.2 and 3.3 and inform the proposals for policy and regulatory tools to implement the shared access schemes. A stakeholder list will be generated by the consortium with DSIT input. Interviews will be conducted via MS Teams and detailed notes will be written before being synthesised to maintain stakeholder confidentiality and draw conclusions.

Task 3.5: Modelling, synthesis & reporting: This final activity in WP3 will draw conclusions on the overall impact of the proposed shared access schemes in terms of total spectrum utilisation, cost-effectiveness & return-on-investment (ROI) from shared access where possible. This will involve:

1. Collate & review cost data from WP1&2 on implementing shared access for each case study.
2. Estimate net impact of shared access by comparing counterfactual (3.2) and intervention scenarios (3.3).
3. Undertaking cost-benefit and/or cost-effectiveness analysis using the outputs from (1) and (2), and any additional assumptions obtained using desk-based research (e.g. £ value of additional spectrum).
4. Synthesising the evidence from the analysis and stakeholder engagement to draw conclusions on the overall impact of shared access across the case studies and policy/regulatory options for implementation.
5. Drafting Report to summarise overall findings (including methodology and assumptions) and addressing a single set of consolidated client comments for an updated Final Report.

Deliverables for WP3 by London Economics		Month
D3.1	Scoping report: specification of scenarios (factual & counterfactual) to be modelled, incl. cost-benefit parameters/assumptions	3
D3.2	Cost-benefit analysis workbook: Workbook with cost benefit analysis of scenarios tested in WP1&2 against the counterfactual	11
D3.3	Draft report summarising key findings, including: discussion of cost-benefit analysis findings, discussion of options to maximise the benefits of shared licensing approaches and potential regulatory tools required to implement these in practice	11

Spectrum Sandbox tender (itt_51276) Response to Question 6: Understanding the sector

The consortium consists of a mix of companies which provide different insights to the problems of spectrum sharing. For the purposes of the research it will be necessary to combine desk based theoretical research, laboratory research and testing and real world testing. This will ensure that Work Package 1 produces the data to enable the analysis of the technologies the project produces to enable spectrum sharing and coexistence. The pairs that Durham-led project will investigate are (pairs 1-3, 8 & 9) independent private mobile, Ultra-wideband radar, WiFi, operator mobile and receive-only communications. We believe that by offering the programme five pairings we are delivering exceptional value for money and will ultimately generate the broadest possible evidence base for the UK Government and Ofcom on the possibilities of more intensive spectrum sharing. Durham University has extensive experience in academic development. It has the ability to build and modify equipment suitable for experimenting in the bands necessary for the testing. TRL brings detailed practical knowledge of vehicle communications, it runs the Smart Mobility Living Laboratory in East London. This real-world testbed provides the consortium with infrastructure including roadside which will provide sites for test 5G cells as provisioned with fibre for backhaul and power. Telet is expert on building private networks using the recent Shared Access and Local Access Licences. It has had more Local Access Licences granted than any other organisation and by landmass has more coverage than all the other local access licences combined. The Telet network in Liverpool is the largest deployment of Shared Access Licences in the UK, with over 60 cells all using the same spectrum in an innovative time slicing method.

The project will add the expertise that TRL has in the V2X technology based on the WiFi standard of 802.11p at 5.9 GHz to the cellular expertise of Telet to investigate the co-existence of mobile and WiFi in the spectrum identified in the World Radiocommunications Conference 2023, in the

upper 6 GHz spectrum range.

Ranplan will compliment this testing strategy by leveraging its proprietary and commercially proven software tools to support the modelling and simulation of spectrum sharing solutions across these five spectrum pairs in WP2. This analysis will enable a wider range of technical parameters, location, frequencies, and network deployment technologies to be tested. This approach will ensure that the real-world test data from WP1 is accompanied by simulated data that is more generalisable to a larger range of 'real world' settings. This will ultimately strengthen the overall evidence base that is available to DSIT and Ofcom on the potential of more intensive spectrum sharing. The advantage of partnering with Ranplan is that they bring existing commercial tools (Ranplan Professional and Ranplan Maxwell) that are already used by mobile operators, venue owners, and enterprises. The effort in this project will therefore focus on the incremental upgrading of this software to optimise it for spectrum sharing dynamics. This approach, as opposed to an untested and costly bespoke ("greenfield") product development, represents a low-risk and cost-effective option for DSIT.

Finally, London Economics (LE) brings a team of independent professional economists led by three senior members of staff who have extensive experience in impact assessment, the economics of communications, in satellite communications and in assessing the economic contributions of spending and policy measures in the advanced technology sector. LE has undertaken dozens of Green Book compliant studies, many investigating the economic impact of new technologies, policies, and regulatory regimes, and assembling robust evidence to underpin HMG business cases. LE has worked with multiple stakeholders on many occasions and, using that experience, will bring a familiarity with key data sources and methods, an understanding of the different stakeholder perspectives; and the need to be clear about uncertainties and the key factors that may change anticipated outcomes.

Taking the pairings individually to understand the challenges, perhaps the most significant pairing is that of upper 6 GHz, and the pairing between WiFi and mobile users. The problem has been highlighted by WRC23 which failed to resolve the desire of both technologies to use the frequencies.

As a scarce national resource, the current approach of awarding national, multi-year licences to the highest bidder has resulted in a restricted deployment environment where licence holders effectively deploy services in the areas that are profitable, but then actively exclude others from using that spectrum in other, typically more rural areas, by way of their "squatters rights". A number of UK MNOs are now on record as having said that they cannot afford to deploy nationwide 5G-NR services. If more cellular spectrum was available to a wider pool of participants on a low-cost "first come first served" basis, then we would see greater deployment of private cellular solutions and wider coverage in the areas that citizens require it - as can be seen in the USA, with 100x more deployments in CBRS than the UK has in its "Shared Spectrum" regime. Equally, it is acknowledged that to roll out national networks, the licence holder does need long term certainty of available spectrum in order to secure an ROI on their investments and to procure relevant equipment.

There is good availability of WiFi7 and WiFi6e indoor equipment, but at the time of writing no outdoor devices. This may change in the time of the project, otherwise we will need to ruggedise existing equipment for outdoor use.

Mobile equipment to use the upper 6 GHz frequencies is more challenging. There is currently no commercially available equipment, and, in discussions with a couple of UK vendors the scope to modify such units, even those with software defined radio, is limited, in particular by the availability of suitable filters for the commercial units. As a result the equipment we will deploy for the research project will be hand-built prototypes. These are easily suitable for laboratory testing but developing equipment which can be cased and used in an outdoor setting will take additional development. We need to be conscious of not only water ingress but, given the recent hot

summers, the issue of heat. We may have to look at some of the cooling technologies used in gaming PCs such as liquid cooling, fans and an external radiator. Such an approach is novel with a small cell, which is traditionally passively cooled.

There is good UE availability for WiFi7. With a significant number of high end Android and iPhones offering support. Why there is no cellular support for Upper 6 GHz in handsets, it is a frequency that is within scope for commercially available simulators. These are physically quite big and while walk tests are possible, they are best suited to drive testing.

Telet and TRL together offer lab/test environments in Bath and London (Smart Mobility Living Lab), respectively. These facilities are privately owned and enable the testing of two spectrum pairs: 1) WiFi and Mobile in the upper 6 GHz Band, and 2) Independently Operated Mobile Networks. Access to the physical testing infrastructure is guaranteed. The bid will enable the Bath testbed to be upgraded to the 6 GHz band, but consortium otherwise offers 'ready to go' infrastructure.

The biggest challenge in the pairing between independent mobile operators and the major MNOs is not technical but political. Working with large organisations which are protective over what they consider to be "their spectrum" even though they only have a licence to use it rather than ownership of it, is slow and difficult. Fortunately, Telet has had success in this area and has operator spectrum in both bands 3 and 38 (1800 MHz FDD and 2600 MHz TDD). This will allow the sandbox project to simulate the technical side of an operator's involvement without having to negotiate the political aspect. If during the timescale of the project we wish to engage the operators the consortium members have good links with the right individuals both in spectrum licencing and R&D. All the equipment necessary is freely available. Telet is working with British cell manufacturer cellXica to produce a Band 3 version of its M5Q cell designed to support dynamic spectrum access. As well as being configured to hop out of the way of the major MNOs, this will provide Ofcom with reporting and logging of what spectrum is being used where.

To test Ultra-Wide Band and Cellular we will again use the Upper 6 GHz frequencies; we can deploy the hand-built demonstrators and test against equipment that Durham already has in the laboratory and which can be modified to support the 6 GHz band. As with other forms of testing this is best suited to laboratory conditions.

The pairing of radar and mobile is likely to be as much down to configuration as to active spectrum management. Looking at 960-1164 MHz (Distance Measuring Equipment and Secondary Surveillance Radar. 2.7-2.9 GHz (Primary Surveillance Radar) it will be necessary to modify band 8 and band 38 mobile equipment to experiment at these frequencies.

The approach the project will take to enabling the sharing of the spectrum is to regard the mobile component as the intelligent, junior partner of any conflict, akin to the rule of the sea where steam gives way to sail. The project will take a CBRS style model of listening before transmitting but unlike CBRS which has a network of costal sensors, the sandbox project will use the cellular technology to detect and avoid the incumbent.

The ability of 3GPPP technologies to allow the base station to guide a handset to use a particular frequency band is a key enabler the UE can be directed away from the interference.

Today's spectrum licences take 8-12 weeks to process for a shared access licence and up to a year for a local access licence. This can severely impact the business case for a project aimed at filling in mobile not spots. One of the reasons for the delay is the need for interference analysis. In the case of shared access licences there is a need to ensure that the user does not impinge on PSME, Satellite or other N77 users. A sandbox which shows that different technologies can work successfully together will remove the need for this analysis and allow licences to be granted much more easily.

Today's system for granting Shared Access Licences is manual. Telet has automated the process

of completing the OfW589 forms but it is clear from wording in the granted licences that the received PDFs are not processed automatically. Ofcom is in the process of automating the mechanics of the licencing system, however a more forgiving and elegant model for the radio planning would play well with this.

Shared Access Licences have been a huge success and are a tribute to Ofcom's innovative thinking. The Local Access Licence is a poor relation and this is entirely down to the need to consult with the mobile operators. Virgin Mobile O2 works to a three month SLA for responses to Ofcom. This is despite Ofcom stipulating one month. Vodafone looks for a £10,000 administration fee for granting Local Access Licences. Three claims that it is using all of its spectrum on all sites, even though this is demonstrably untrue.

The innovation that the work on Spectrum Sandboxes brings is that the recalcitrant operators are taken out of the loop. Ofcom can grant use of frequencies on the basis that a new entrant operator can use them on the understanding that they will not interfere with anyone else. This does not materially affect the major operators because as soon as they start to use some spectrum the new entrant backs off, but it also provides an incentive to the major operators to use spectrum that otherwise lies idle. It contributes to meeting Ofcom's brief to make the best possible use of available spectrum.

By exploring the extent to which technical and regulatory mechanisms for sharing spectrum can work successfully, the research will contribute to building the evidence base to support Ofcom and DSIT's continued working with international partners, following the WRC-23 outcomes - to encourage wider use of sharing approaches beyond the UK. Consistent approaches across borders help achieve economies of scale in the production of the relevant equipment and encourage innovation, enabling the faster development of new technology such as, for example, automated sensing of spectrum gaps in real time, reducing the guard bands between services and the potential of co-located services.

Durham University will work with Ofcom to present the relevant results to the ITU SG3 in preparation for WRC 2027.

Spectrum Sandbox tender (itt_51276). Response to Question 7: Project Management & Delivery

Overview of offer: unique combination of expertise to address requirements in tight timescales

Our approach will meet the specific project objectives and offer a '**low risk**' option to address DSIT's requirements by: (1) offering expert **capacity** across five complimentary partners to address the end-to-end requirements of the study within the tight 12-month timeframe and minimise risk of slippage; (2) offering **breadth** and therefore **value-for-money** through coverage of a total of 5 spectrum pairs (2 implemented in the WP1 testbed, plus 3 implemented via simulation and modelling in WP2); (3) staffing the study with **dedicated project management staff** to ensure close coordination of the consortium, achievement of milestones to schedule, and robust reporting and engagement with DSIT; (4) offering a unique combination of two privately-owned testbeds, a suite of existing facilities & equipment, and a market-proven simulating & modelling software, thus minimising potential capital costs to DSIT; (5) **building-in regular engagements with DSIT and other stakeholders to ensure regular monitoring of progress and achievement of strategic study objectives**; (6) proposing a consortium with existing knowledge of DSIT and the spectrum context, ensuring familiarity with the strategic context, data availability & limitations, and DSIT set-up from "get go"; (7) proposing a robust governance structure with multiple levels of review between the Project Manager, WP leads, and task leads to ensure quality of outputs before timely submission to the client and revision of outputs in response to client comment, and (8) guaranteeing a Firm-Fixed Price (FFP) with no risk of price overrun for the outlined scope.

Robust management and Quality Assurance procedure:

The Centre for Communication Systems (CfCS) at Durham University will lead the consortium. **REDACTED** will be **Project Manager (PM)** for this study, managing the whole consortium and



overseeing all project management activities (**WP0**) such as Kick-off Meeting (KOM) and inception for each phase of the project, ongoing project management activities, engagement with client and Steering Group (SG), oversight of project progress and milestones, securing resources, overall consortium coordination, and final line of quality assurance (QA). **REDACTED** and has more than two decades of experience delivering technical spectrum studies with international and diverse consortia. If successful, **REDACTED** will reduce her Management responsibilities at the CfCS and allocate a total of 3 FTE days per week for the duration of the study to ensure full focus. She will be supported by a further 2 days/week of technical staff to ensure technical oversight of project delivery. This team will be supported by a dedicated **Contract Manager (CM)**, to be assigned based on experience and availability at contract award, who will lead contract management, invoicing, milestone reporting, and contractual liaison with DSIT. Following contract award, the CM will prepare subcontracts for all partners to flow-down the primary contract terms and conditions between Durham and DSIT. Together, the PM and CM will oversee project delivery and have regular meetings with the project delivery team and **WP Managers (WPMs)** (WPMs; WP1: **REDACTED**, TRL; WP2: **REDACTED**, WP3: **REDACTED** and **REDACTED** deputising in case of absence) to monitor progress against schedule, discuss key technical challenges, ensure alignment across WPs and overall client objectives, and achievement of the service level KPIs outlined in the ITT. The PM and WPMs will be responsible for QA of all deliverables. In addition, WPMs will lead dedicated WP-specific activities and internal QA processes to ensure that the intended outputs of each WP are delivered. This multi-layered review process ensures that quality outputs will be delivered to the client in the first instance. Comments from DSIT and the SG will be addressed during the touch points identified for the study, including weekly progress meetings, review meetings after the submission of deliverables, the Working Group Meeting, and open communication with the PM (and WPMs where required). **Contingencies for staff absence and illness:** The unique depth and breadth of the teams mean that the consortium can draw-on a pool of consultants with relevant expertise (20+ from Durham, 15+from Telet, 6 from TRL, 15 from Ranplan, and 35+ from LE) to support delivery of the project alongside the assigned staff at any stage where required. To ensure delivery of the required expertise throughout the project (e.g., in event of staff absence), the CM will act as nominated substitute for the PM and Durham's additional management resources will be assigned to support the PM and CM roles. Alternatively, one of the WPMs can be assigned to take over PM responsibility as an option. Resourcing risk is assumed minimal but will be escalated to the PM, CM & DSIT for mitigation.

Client reporting: systematic, proven & flexible

The PM and CM will schedule and attend weekly client meetings with DSIT and will be the single points of contact for all technical & programmatic and contract & invoicing issues, respectively. These will be scheduled via video conferencing software (e.g. MS Teams) with in person meetings at 100 Parliament Street, London assumed for KOM, Quarterly Innovation Sessions, the Final Review Meeting, and as agreed at KOM. Between meetings, the PM and CM will field open communication channels with DSIT via email and are committed to responding as per the service level KPIs outlined in the ITT. Key issues will be raised with the project delivery teams during weekly consortium meetings or ad hoc meetings as required before a final response is provided to DSIT. SG meetings (SGMs) between the consortium, DSIT and wider stakeholders will be scheduled every other month, unless otherwise agreed at KOM. WPMs will attend the KOM, all SGMs, all post-deliverable review sessions, and weekly client meetings where relevant. The agenda for the weekly client meetings will remain flexible to DSIT requirements and the project's progress, but will otherwise include: 1) overall statement of progress; 2) detailed review of WP progress against schedule (a 1-2 slide summary with Red/Amber/Green status); 3) emerging findings / discussion points; 4) review of risk register; 5) agreement of agenda items for upcoming SGMs; 6) invoicing & contract issues; 7) AOB, and 8) agreement of agenda items for upcoming

SGMs. A record of minutes from each meeting summarising agreed actions, the updated risk register, and the 1-2 slide project status tracker will be shared within 2 working days of each meeting, unless agreed otherwise. This proposed plan has been budgeted for, but the consortium can discuss alternative reporting approaches with the client at KOM within the allotted budget envelope.

Management of data: best practice & GDPR compliant

Each member of the consortium is fully aware of, and in full compliance with, its obligations under the UK GDPR/the 2018 Data Protection Act (DPA) and the Freedom of Information (FOI) Act 2000 and staff are regularly instructed on the relevant obligations. Any anticipated collection of personal or sensitive data is outlined in our response to Question 2 of the ITT. Collection, processing, storage, and reporting of such data will be used exclusively for the purpose of this study and will comply with each party's Data Protection Policies which are compliant with the aforementioned legal obligations. The PM and CM will ensure adherence of best practice in their capacities as project leaders and prime contractors with DSIT and through their contracts with all partners to be executed upon confirmation of bid award.

Risk Management: comprehensive & proven

Risk Management is at the core of each partners' business model. Durham delivers a large number of research projects every year and issues with delivery are extremely rare. We have appended a sample risk register (below) covering key aspects of project delivery. The risk register, detailing risks, action, issues, and mitigation decisions (RAID) will be kept live throughout the project to reflect any changes in circumstances and will be discussed with DSIT during weekly meetings. We have implemented a key risk mitigation action already at the proposal stage, namely the formation of a project leadership group (PM, CM, and WPDs) comprising each company's most experienced professionals and experts in spectrum. This proven model has been utilised by members of the consortium across dozens of projects.

Project Plan: systematic, proven & flexible

The timescales provided in the ITT are tight. For that reason, we have devised a detailed project plan that allows us to complete tasks in parallel. All partners have also provisionally allocated staff to the project in our internal planning process, to ensure we can commence immediately upon notification from DSIT. Durham, LE, TRL, and Telet have a good track record for delivering on time to DSIT and government more broadly. This specific experience will serve us well in delivering all project outputs by March 2025. In the event of a delay in project start, client review of outputs, or other reasons, the consortium is flexible in discussing possible solutions. The team includes several of each partner's most senior and experienced staff, eliminating any risk that the project would not receive sufficient attention. For the avoidance of doubt, each staff member's competing projects over the same timeline have been resourced to minimise overlaps of staff. The team's existing test infrastructure, equipment, and knowledge of spectrum and wider context means that we avoid 'learning time' which may slow the start of the project and increase the burden on DSIT. The project plan (below) is fully compliant with the **25/03/2024** contract commencement date and **25/03/2025** contract end date and proposes interim milestones aligned with the ITT list of deliverables. A project GANTT chart detailing the proposed study timetable, milestones, delivery deadlines, meetings, and key dependencies is included in last page of this document (additional to the 3 A4 page limit), in full compliance with the ITT.

Table 1 List of deliverables (please refer to GANTT below)

Deliverables (1/2)	Deliverables (2/2)
DS.1: Kick-off meeting to agree & finalise approach	DS.4: Test planning, setting out which systems will be tested, etc.
DS.2: Stakeholder communication plan	DS.5: Test report, setting out detailed results
DS.3: Final Intranet Report (WPI 2.3)	DS.6: Report and proof of concept demonstration on potential of sharing
DS.4: Final reports for all WPs	DS.7: Simulation and modelling plan setting out details of systems and parameters
DS.5: Working group meeting & summary presentation	DS.8: Simulation and modelling results
DS.6: Bi-monthly Steering Group Meetings (every 2 months)	DS.9: Data catalogue, listing all input data and parameters
DS.7: Quarterly Innovation Sessions	DS.10: Specification of scenarios (intervention and counterfactual)
DS.8: Request approvals from Officers	DS.11: Workbook with cost benefit scenarios
DS.9: Request approvals from Gov. departments	DS.12: Report, including discussion of cost benefit findings and discussion of options
DS.10: R&D report detailing the design of the sharing solutions to be tested	

Key risks and risk management planning

Risk	Likelihood	Impact	Mitigation	Owner	Residual risk
Misunderstanding of project aims and scope, especially if this evolves over time	L	M	Reflection on ITT vis-à-vis our knowledge of context, discussions at KOM and agreement on action plan / scoping report before commencement. Regular engagement with client and steering group to provide updates on progress and key technical decisions. This ensures that the team can adjust delivery in response to regular client feedback.	DU	Negligible
Insufficient coordination between consortium members leading to poor delivery	L	H	Consortium members have worked together successfully to prepare this proposal and will continue to cooperate during the proposed research through regular formal and informal mechanisms. Regular consortium coordination meetings will take place and the proposal sets out clear roles for each consortium member for the research with a nominated individual leading each work package and overall project lead, Professor Salous. These mechanisms will be supported by the project management team at Durham University and by the sub-contracting arrangements that will be put in place on commencement of the work.	DU, All	Negligible
Outputs from individual work packages e.g. WP1/2 not suitable as inputs to other work packages e.g. WP2/WP3	L	H	Consortium members will work together at an early stage to further coordinate the details of the requirements for each work package and the feasible outputs for each work package. Regular consortium meetings throughout the project will ensure that any changes in requirements or outputs as evidence is collected are communicated within the consortium and with the client and can be addressed promptly with alternative analytical approaches.	DU, All	Negligible
Obtaining all of the spectrum licences envisaged in order to undertake the WP1 testing	M	M	Telet currently has n77 licences in the Bath area and in the process of applying for a licence in their lab facility. Telet will also apply for a licence for the Greenwich route and in the event Telet cannot trial in London, they will trial in Salisbury and South Wales area. They can also operate the receivers in a passive mode to assess the spectrum occupancy. Therefore, the risk of being unable to deliver on the ITT is low. Similarly, the risk of not being able to apply successfully for new licences is low. We will also communicate with Ofcom regarding outdoor short range measurements in the upper 6 GHz band and outdoor to indoor for possible sharing the spectrum in different deployment scenarios.	Telet	Low
Insufficient evidence available from WP1 & WP2 on the impacts of alternative regulatory approaches for shared access	M	M	The evidence developed through WP1&2 on the application of spectrum sharing mechanisms will be supplemented in WP3 through a triangulation approach with evidence from the literature on what works and through the discussions with stakeholders, who will be asked about potential implementation mechanisms and their feasibility based on their experiences with existing approaches. Availability of evidence will be one of the criteria for choosing the case studies to develop in WP3.	LE	Low
Uncertainties in the data that support the assessments of costs and benefits in each case study	H	M	Uncertainty is inherent in this research area, the aim of the sandbox is to develop new evidence to help reduce uncertainties. Uncertainties will not be eliminated entirely, but to limit them data from a wide range of sources will be used including robust testing and modelling approaches in WP1&2 and a strong prior understanding of relevant market data and impact assessment methods for the WP3 analysis. In order to address remaining uncertainties we will be clear about the nature and scope of those uncertainties, and we will use scenario modelling and sensitivity analysis to show the potential effects of alternative assumptions. We are confident that the analysis will be able to provide useful evidence to support future decision making.	LE	Medium
Uncertainties regarding the viability of integrating new test devices into the existing testbed infrastructure, impacting the projects' ability to generate appropriate evidence for WP2/3	L	M	The key mitigations here are (1) using a purpose built test environment (e.g. TRL's Smart Mobility Living Lab) that has been tried and tested from the perspective of integrating new test devices; (2) prior engagement between the teams; (3) ongoing collaboration and coordination; (4) use of near market or commercially available off the shelf equipment that has been designed for the target environment; (5) the project timeline and delivery approach has been designed to facilitate a level of iteration between the design and deployment of additional devices. Given these mitigations we are confident that we will be able to incorporate all necessary devices into the SMLL network.	TRL	Low
Data cannot be accessed from the WP1 test environment / test devices and provisioned via the Data Sharing Platform	M	L	Acquiring robust test data is a core aspect to the bid requirements. Key mitigations here include: (1) It is proposed that the approach to delivering the Data sharing platform proof of concept is based on an existing platform that TRL has successfully deployed to provision connectivity test data to its stakeholders – this requires some further development, but mitigates the risks associated with developing a new platform from scratch; (2) Skilled and dedicated resource has been identified and budgeted for to enable the delivery of the data sharing platform proof of concept; (3) As part of the bid formation, TRL, Telet and Durham have all committed to collaborating to make the data available from their respective test devices, and will support this from a resourcing and expertise perspective. Regular WP1 management meetings will support this.	TRL	Low
Code/Design conflict with the current software	L	M	Preplanning the new features design to deliver each project task. Requiring regular meetings with the development team to obtain coding and design advice.	RW	Medium
Simulation model is too large to be implemented in software	H	M	The simulation within the project shall be fit into the software while maintaining high performance. Comprehensive evaluations shall be taken place before the real implementation in the software. Communication shall be done in advanced with other work package to understand the complexity of incoming simulation task.	RW	Negligible

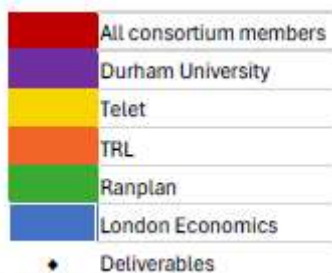
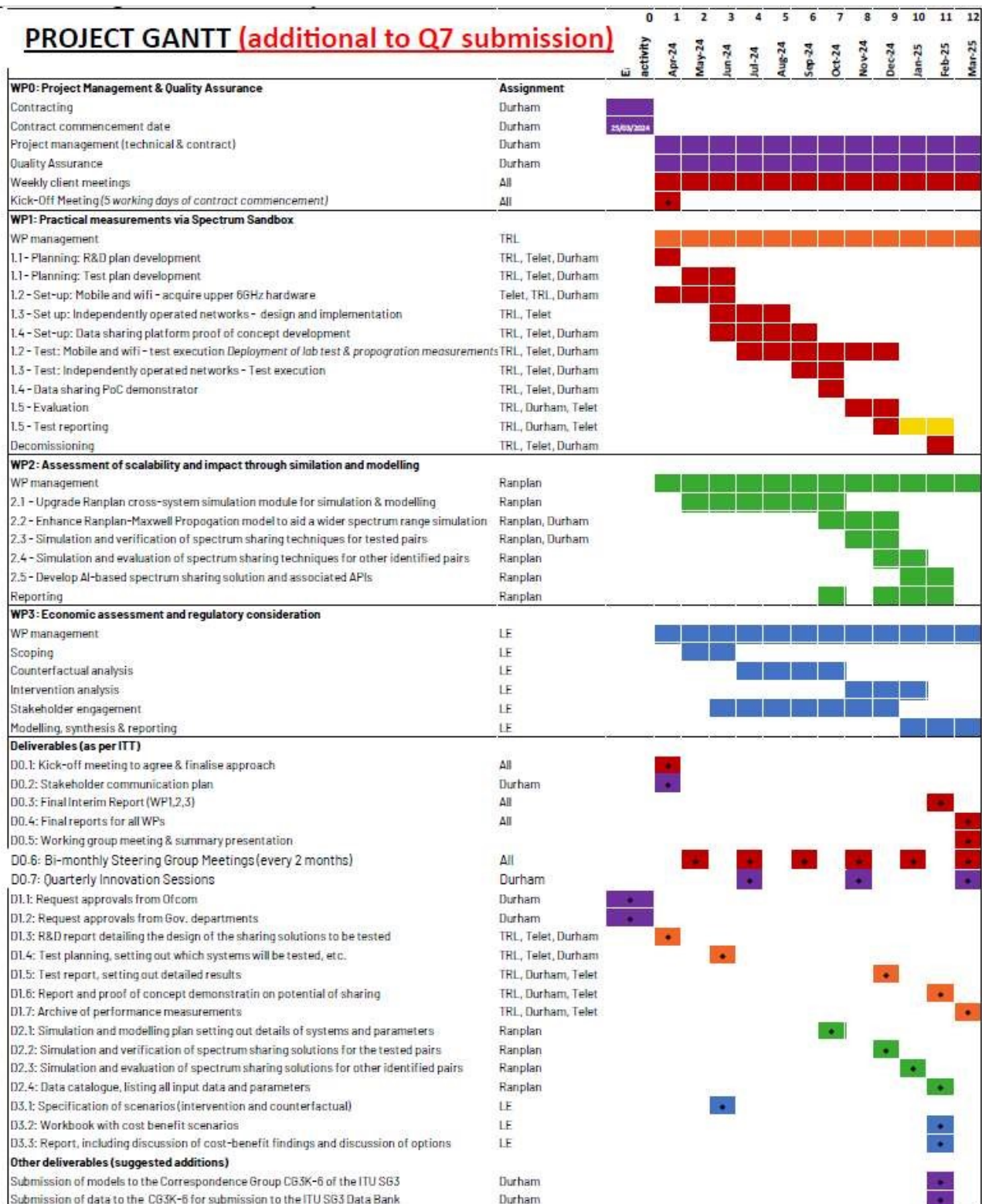
PROJECT PLAN: Additional to Q7 response above

We propose to split the work into four distinct work packages (WPs) – comprising WP0 (Project Management & Quality Assurance), WP1 (Practical Measurements via Spectrum Sandbox), WP2 (Assessment of scalability and impact through simulation modelling), and WP4 (Economic assessment and regulatory consideration) – described in more detail in the project Gantt chart on the right hand side. For each WP, the detailed work plan, team composition, and expected outputs will be systematically agreed with the client at the Kick Off Meeting (KOM) to ensure that both teams share the same reference for project management, time scales, deliverables, and risk management. Each WP will be conducted as an individual project, with its own staff lead, deliverables and milestones. This project plan serves as a basis for continuous monitoring and management, and indicate the delivery schedule for each research component (start/end date) and expected outputs. Running WPs in parallel whenever possible is our proven strategy to maximise the available staff time, as multiple tasks can run simultaneously, and ensure unexpected bottlenecks on one task have minimal impact on concurrent activities. Our capacity of expertise enables this. We deliver on a firm fixed price basis, removing any risk of budget slippage from DSIT.

Key dependencies that have been identified include:

- **KOM (T0):** final agreement on scope, methodology, meeting schedules, role of Steering Group, client contacts, and agreement on scope of Quarterly Innovation Sessions.
- **R&D plan (T0+1m):** choice of sharing solutions and rationale to be tested, as well as overall field measurement design.
- **Test plan (T0+3m):** coordination of test activities, scope of field measurements to be conducted, and evaluation metrics.
- **Licence acquisition:** Telet's application for Greenwich testbed is dependent on obtaining a licence, but alternative options are testing in Salisbury and South Wales.
- **Case study down-selection:** selection of four case studies to be assessed in WP3, based on agreement with consortium and DSIT.

PROJECT GANTT (additional to Q7 submission)



Spectrum Sandbox tender (itt_51276): Response to Question 8: Social Value**Page 1 of 4****SUB QUESTION 1: MAC 2.2: Create employment and training opportunities**

This document outlines our approach and strategies to contribute to valuable employment and training opportunities, as well as the specific commitments we make as part of delivering this project.

Employment: Employment lies at the core of social value, serving as a conduit for economic stability, personal growth, and community resilience. **Through this contract, we pledge to prioritise the creation of meaningful and fair employment opportunities regardless of location or background.** We analyse, identify and address recruitment needs continuously and promote vacancies which reach all geographic locations and follow a fair and consistent recruitment process regardless of socio-economic background. With the ability to hire across all regions of the UK as well as internationally, this project can strategically reach out to top-talent with expertise in specific fields regardless of geographic location or socio-economic background. To access global talent, we recognise the importance of holding a sponsor licence. This not only ensures specific recruitment needs are met but also introduces a mix of perspectives and approaches, stimulating innovation and growth.

Creation of meaningful employment opportunities and support will be facilitated across all partners for this contract; concretely:

Durham is a leading university in wireless network technology and will provide facilities and equipment for WP1 and WP2. **Delivery of this project will allow Durham to support a PhD researcher and potential future academic employment opportunities for research related to the project and the simulation testing.** Similarly, **Telet** and **TRL** have substantial expertise in spectrum, Wi-Fi/mobile network deployment and physical testing. **The contract will support employment of 1 staff to work on network deployment and physical testing as part of WP1 and the hosting of 2 Durham students over the summer.** **Ranplan** wireless network design, is a well-known and experienced company for wireless network simulation and software development. The company is well equipped to transfer academic research outcomes into real-world implementation. As part of the project, this means that **Ranplan can provide at least 2 employment opportunities equipping new hires and less experienced staff with knowledge and ability in professional software development as well as industrial level simulation testing.** **London Economics** is a leading policy and economics consultancy. **We commit to utilise this contract to provide concrete opportunities to tackle gender inequality and provide opportunities to staff from traditionally under-represented backgrounds.**

This is reflected in our proposed staff for this project which contains members working across UK regions, two women-members of staff.

Staff development and knowledge transfer: Supporting skills development and educational attainment of staff is a key pillar for Durham as well as consortium members. This project will offer a diverse array of training programs for consortium staff members spanning technical skills, soft skills, and industry-specific certifications. Delivery of this project will contribute to upskilling staff among the consortium as well facilitate knowledge transfer among consortium members. **As part of this project Durham commits to explore the possibility to open some of their courses to the project partners** to help build a solid knowledge foundation for the project and fill gaps. To facilitate training among consortium partner, Durham will **organise and deliver a summer school** focused on knowledge transfer to consortium members. The summer school will be organised during the middle of the project to deliver essential skills training to enable better delivery of this project. As the lead, **Durham will therefore also work with other partners to facilitate knowledge sharing and development through a number of internal workshops** (we commit to organising as a minimum 2 internal workshops). We envisage that **RPN** will be able to provide training to introduce the software development process, as well as facilitate wireless knowledge training for the project participants, consolidating the foundation of the project. **London Economics** will be able to share knowledge on key economic principles and best practice in economic evaluation of technology projects, including an introduction to the Green Book.

Consortium partners will also be able to attend the physical testing undertaken to learn about network deployment and testing in real-world scenarios. The workshops will be organised in line with WP tasks outlined in the project plan.

Creating social value in the community: This project also supports creating social value through collaborating with local stakeholders and educational institutions. Due to the required skill differences between academy and industry, the collaboration we have with universities and colleges helps create seamless pathways for students to transition from education to employment. It also encourages and appoints internal mentors who guide, support and advice other team members to develop their skills, gain useful feedback, knowledge share and help build working relationships. It is envisaged that students from Durham and LE could support deployment of the network and real-world testing by working alongside Telet, TRL, and RPN. Meanwhile, at the end of the project, we will disseminate the outcome with a **workshop to demonstrate the results from this project to the public**. The project workshop is envisaged to be held at a high impact conference or event, such as GLOBCOM, URSI, EUCAP, or MWC etc. During the workshop, external speakers will be invited to expand the impact of this project.

Accelerating Action for Growth and Jobs: Collaborating with customers, employees, suppliers, and community organisations allows us to gain valuable insights and build mutually beneficial relationships. By nurturing a favourable environment for research, business development and investment, we can help a cycle of job creation, capital generation and community engagement. Additionally, our emphasis on sustainable practices ensures that our endeavours contribute to long-term economic resilience and environmental sustainability.

Promoting Equity and Inclusion: It is central to our mission to promote equality and inclusion across all facets of our operations, processes and procedures. Through targeted outreach efforts and initiatives, we seek to recruit, welcome and encourage applications from qualified individuals regardless of sex, race, disability, sexual orientation, gender identity, marriage or civil partnership status, pregnancy or maternity, religion or belief. We aim to set a precedent for fair and inclusive practices among academia and beyond. We ensure consistent processes and fair treatment underpinned by the Equality Act 2010.

Specific commitment as part of this contract: Supporting/Creating employment

- Support of a researcher opportunity in the North East. (Lead: Durham, WP1/WP2); Support employment of 1 staff to work on network deployment and physical testing in Greater London /the South East. (Lead: Telet/TRL, WP1); Support employment of 2 software developers in the East of England. (Lead: Ranplan, WP2)
- We commit for at least two women-members of staff, both London-based, to work on this project to tackle gender inequality in economic analysis related to high technologies. (Lead: LE, WP3)
- Staff development and knowledge transfer
- Exploring option to open university courses to consortium members. (Lead: Durham, start of project)
- Organisation and delivery of a summer school focused on knowledge transfer to consortium members. (Lead: Durham, midterm of the project)
- Organisation of at least 2 internal workshops to share knowledge and skills across consortium members (Lead: Durham)

Creating social value in the community

- Provide 2 work-experience placements for Durham University students, targeted at underrepresented or disadvantaged students, among consortium members during delivery of this project. (Durham)
- Workshop to demonstrate the outcomes from this project to the public and facilitate knowledge sharing, training and exchange. (Durham, at the end of the project)

SUB QUESTION 2: MAC 3.3: Supporting DSIT's mission to drive productivity improvements
Commitments by the Consortium lead:

Wireless access is vital for economic growth and currently the UK suffers from Digital divide with rural areas coverage being limited due to the low population density and the small number of users in comparison to dense urban environments. This has severe impact on the development of such regions and this was clearly evident during COVID when people were primarily working from

home where rural areas did not have sufficient access to conduct their business. By allowing spectrum sharing, operators can make use of unused spectrum as can be seen in Fig. 1 where several bands of the 3G mobile network were monitored at Durham and only 6 frequency bands (50%) are used by the MNOs who won the bid of the 3G spectrum.

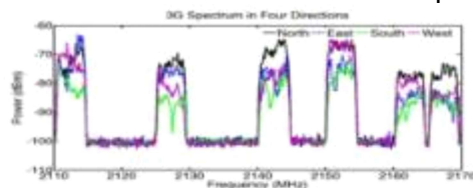


Fig. 1 Spectrum usage in the 3G band

By allowing spectrum sharing, these gaps can be used locally by other operators to provide service for the community which is vital to enhance its productivity and social activity.

In addition, enhanced network coverage would enable remote access, thus reducing the impact on climate by enabling working from home, thus reducing carbon emissions and improving productivity.

Durham

Support of the local industry

Durham University is well placed in the North East where the Centre for Process Innovation (CPI) in NETPARK works closely with academia, industry and government to bridge the gap between innovation and commercialization enabling products to be quickly and cost-effectively brought to market, delivering highly-skilled jobs and economic growth to the UK. Durham University works closely with Filtronic, a local SME, who manufacture RF heads and are currently supporting its research program to study the impact of precipitation on fixed links to aid in the design of RF heads for high data rates.

Mentoring

The award of the ITT will also enable the engagement of MEng and the MSc students to participate in the project through seminars, design projects and practical courses. This would provide valuable training to acquire RF skills needed for industry, the design and deployment of wireless networks, the techniques for spectrum sharing and exposure to the international standards with appropriate skills that can be of benefit to Ofcom and DSIT.

TRL

Committing to efficiency improvements in delivery of testbed services

The commitment will be achieved by a combination of internal development roadmaps and R&D activities, internal investment activities, and in-project developments, managed on an Agile sprint basis. Moreover, TRL improved the level of test automation as part of our validation and evaluation process, increasing the speed of results from 5 hours for a test session to 1 hour. In this work programme we have committed to similar levels of performance and efficiency improvements specifically in relation to the test set up and validation activities, and this has been reflected in our pricing for WP1 activity.

Approach to organisational learning and continuous improvement

In the context of this programme of work, we are committing to developing 2 evidence-based thought leadership pieces to highlight the implications of increased spectrum sharing on key transport related use cases, for instance, focusing on logistics use cases and the role that the

transition between public and private networks offer. To deliver impact on this thought leadership, we would expect to make use of TRLs relationships within the ecosystem to build awareness of the findings of the research, and our perspectives on this as an independent and technology agnostic testbed. In practical terms, we have budgeted for delivering 3 'lunch and learn' seminars with target audiences across DSIT and other government departments (e.g. the Department for Transport Science and Technology teams), the Smart Mobility Living Lab's Innovation Community (consisting of a range of large corporations, institutions and startups/SMEs from across the mobility ecosystem), the automotive and logistics sectors (e.g. the UK Automotive Council).

Ranplan

Committing to efficiency improvements in delivery of testbed services

Ranplan will demonstrate their ability to engender radical productivity improvements for leading proponents of wireless for industrial use in the front-running 5G markets of Japan and Korea. A prime example related to a steel factory (run by a division of Sumitomo) which managed to meet all the essential criteria for the re-use of 5G frequencies within its plant without adversely interfering with the public (outdoor-centric) mobile networks of the NTT DoCoMo, KDDI, Softbank and Rakuten.

Continuous enclosed circle for development and research

The continuous engagement with the clients provides a positive way of receiving feedback from the client as well as the market. The supplement will be developed to deliver a better product to the clients, and it can also help the company to take advantage of knowing the market and trend in advance. The profit from the productivity will be spent for the future development, including the research of advanced algorithm for improving the efficiency of simulation and the emerging technologies of 5G and 6G, and it can greatly help the client for network planning, design, and optimization.

London Economics

Support relevant sector related skills and growth

All our staff have the opportunity to work remotely and hybrid, this enables staff from across the UK to develop a career at London Economics and removes any barriers to staff who live outside of London to build a career with London Economics. We currently have 5 FTEs who live outside of London, this equates to approximately 10% of our staff. For example, we have two team members for this research project who live outside of London and we will continue to ensure that their ability to fully contribute is not hindered by their working location.

Implementation

To implement the above commitments successfully, London Economics will develop an internal project plan, identifying key tasks to be undertaken (i.e., training sessions and meetings) and monitor these regularly. They will also ensure that work on the data analysis, literature review, and dissemination is allocated to facilitatesufficient exposure and learning by the members of staff from under-represented groups. Completed measures and achieved impacts will be reported to DSIT

Order Schedule 5 (Pricing Details)

TOTAL COST	<div data-bbox="268 1310 1437 1359">£1,398,247.00</div> <div data-bbox="268 1359 1437 1863">REDACTED</div>
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Order Schedule 7 (Key Supplier Staff)

- 1.1 The Annex 1 to this Schedule lists the key roles (“**Key Roles**”) and names of the persons who the Supplier shall appoint to fill those Key Roles at the Start Date.
- 1.2 The Supplier shall ensure that the Key Staff fulfil the Key Roles at all times during the Contract Period.
- 1.3 The Buyer may identify any further roles as being Key Roles and, following agreement to the same by the Supplier, the relevant person selected to fill those Key Roles shall be included on the list of Key Staff.
- 1.4 The Supplier shall not and shall procure that any Subcontractor shall not remove or replace any Key Staff unless:
 - 1.4.1 requested to do so by the Buyer or the Buyer Approves such removal or replacement (not to be unreasonably withheld or delayed);
 - 1.4.2 the person concerned resigns, retires or dies or is on maternity or long-term sick leave; or
 - 1.4.3 the person’s employment or contractual arrangement with the Supplier or Subcontractor is terminated for material breach of contract by the employee.

1.5 The Supplier shall:

- 1.5.1 notify the Buyer promptly of the absence of any Key Staff (other than for short-term sickness or holidays of two (2) weeks or less, in which case the Supplier shall ensure appropriate temporary cover for that Key Role);
- 1.5.2 ensure that any Key Role is not vacant for any longer than ten (10) Working Days;
- 1.5.3 give as much notice as is reasonably practicable of its intention to remove or replace any member of Key Staff and, except in the cases of death, unexpected ill health or a material breach of the Key Staff's employment contract, this will mean at least three (3) Months' notice;
- 1.5.4 ensure that all arrangements for planned changes in Key Staff provide adequate periods during which incoming and outgoing staff work together to transfer responsibilities and ensure that such change does not have an adverse impact on the provision of the Deliverables; and
- 1.5.5 ensure that any replacement for a Key Role has a level of qualifications and experience appropriate to the relevant Key Role and is fully competent to carry out the tasks assigned to the Key Staff whom he or she has replaced.

- 1.6 The Buyer may require the Supplier to remove or procure that any Subcontractor shall remove any Key Staff that the Buyer considers in any respect unsatisfactory. The Buyer shall not be liable for the cost of replacing any Key Staff.

Annex 1- Key Roles

Key Role	Key Staff	Contact Details	Escalation Process (1,2,3)
Contract Manager	REDACTED	REDACTED	2
Project Manager	REDACTED	REDACTED	1
SRO	REDACTED	REDACTED	4
Escalation Contact	REDACTED	REDACTED	3

Order Schedule 8

(Business Continuity and Disaster Recovery)

Definitions

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

"BCDR Plan"	has the meaning given to it in Paragraph 2.2 of this Schedule;
"Business Continuity Plan"	has the meaning given to it in Paragraph 0 of this Schedule;
"Disaster Recovery Deliverables"	the Deliverables embodied in the processes and procedures for restoring the provision of Deliverables following the occurrence of a Disaster;
"Disaster Recovery Plan"	has the meaning given to it in Paragraph 0 of this Schedule;
"Disaster Recovery System"	the system embodied in the processes and procedures for restoring the provision of Deliverables following the occurrence of a Disaster;
"Related Supplier"	any person who provides Deliverables to the Buyer which are related to the Deliverables from time to time;
"Review Report"	has the meaning given to it in Paragraph 0 of this Schedule; and
"Supplier's Proposals"	has the meaning given to it in Paragraph 0 of this Schedule;

BCDR Plan

The Buyer and the Supplier recognise that, where specified in DPS Schedule 4 (DPS Management), CCS shall have the right to enforce the Buyer's rights under this Schedule.

At least ninety (90) Working Days after the Start Date the Supplier shall prepare and deliver to the Buyer for the Buyer's written approval a plan (a "BCDR Plan"), which shall detail the processes and arrangements that the Supplier shall follow to:

ensure continuity of the business processes and operations supported by the Services following any failure or disruption of any element of the Deliverables; and

the recovery of the Deliverables in the event of a Disaster

The BCDR Plan shall be divided into three sections:

Section 1 which shall set out general principles applicable to the BCDR Plan;

Section 2 which shall relate to business continuity (the "**Business Continuity Plan**"); and

Section 3 which shall relate to disaster recovery (the "**Disaster Recovery Plan**").

Following receipt of the draft BCDR Plan from the Supplier, the Parties shall use reasonable endeavours to agree the contents of the BCDR Plan. If the Parties are unable to agree the contents of the BCDR Plan within twenty (20) Working Days of its submission, then such Dispute shall be resolved in accordance with the Dispute Resolution Procedure.

General Principles of the BCDR Plan (Section 1)

Section 1 of the BCDR Plan shall:

set out how the business continuity and disaster recovery elements of the BCDR Plan link to each other;

provide details of how the invocation of any element of the BCDR Plan may impact upon the provision of the Deliverables and any goods and/or services provided to the Buyer by a Related Supplier;

contain an obligation upon the Supplier to liaise with the Buyer and any Related Suppliers with respect to business continuity and disaster recovery;

detail how the BCDR Plan interoperates with any overarching disaster recovery or business continuity plan of the Buyer and any of its other Related Supplier in each case as notified to the Supplier by the Buyer from time to time;

contain a communication strategy including details of an incident and problem management service and advice and help desk facility which can be accessed via multiple channels;

contain a risk analysis, including:

failure or disruption scenarios and assessments of likely frequency of occurrence;

identification of any single points of failure within the provision of Deliverables and processes for managing those risks;

identification of risks arising from the interaction of the provision of Deliverables with the goods and/or services provided by a Related Supplier; and

a business impact analysis of different anticipated failures or disruptions;

provide for documentation of processes, including business processes, and procedures;

- set out key contact details for the Supplier (and any Subcontractors) and for the Buyer;
- identify the procedures for reverting to "normal service";
- set out method(s) of recovering or updating data collected (or which ought to have been collected) during a failure or disruption to minimise data loss;
- identify the responsibilities (if any) that the Buyer has agreed it will assume in the event of the invocation of the BCDR Plan; and
- provide for the provision of technical assistance to key contacts at the Buyer as required by the Buyer to inform decisions in support of the Buyer's business continuity plans.

The BCDR Plan shall be designed so as to ensure that:

- the Deliverables are provided in accordance with this Contract at all times during and after the invocation of the BCDR Plan;
- the adverse impact of any Disaster is minimised as far as reasonably possible;
- it complies with the relevant provisions of ISO/IEC 27002; ISO22301/ISO22313 and all other industry standards from time to time in force; and
- it details a process for the management of disaster recovery testing.

The BCDR Plan shall be upgradeable and sufficiently flexible to support any changes to the Deliverables and the business operations supported by the provision of Deliverables.

The Supplier shall not be entitled to any relief from its obligations under the Performance Indicators (PI's) or Service Levels, or to any increase in the Charges to the extent that a Disaster occurs as a consequence of any breach by the Supplier of this Contract.

Business Continuity (Section 2)

The Business Continuity Plan shall set out the arrangements that are to be invoked to ensure that the business processes facilitated by the provision of Deliverables remain supported and to ensure continuity of the business operations supported by the Services including:

- the alternative processes, options and responsibilities that may be adopted in the event of a failure in or disruption to the provision of Deliverables; and
- the steps to be taken by the Supplier upon resumption of the provision of Deliverables in order to address the effect of the failure or disruption.

The Business Continuity Plan shall:

- address the various possible levels of failures of or disruptions to the provision of Deliverables;
- set out the goods and/or services to be provided and the steps to be taken to remedy the different levels of failures of and disruption to the Deliverables;
- specify any applicable Performance Indicators with respect to the provision of the Business Continuity Services and details of any agreed relaxation to the Performance Indicators or Service Levels in respect of the provision of other

Deliverables during any period of invocation of the Business Continuity Plan; and

set out the circumstances in which the Business Continuity Plan is invoked.

Disaster Recovery (Section 3)

The Disaster Recovery Plan (which shall be invoked only upon the occurrence of a Disaster) shall be designed to ensure that upon the occurrence of a Disaster the Supplier ensures continuity of the business operations of the Buyer supported by the Services following any Disaster or during any period of service failure or disruption with, as far as reasonably possible, minimal adverse impact.

The Supplier's BCDR Plan shall include an approach to business continuity and disaster recovery that addresses the following:

- loss of access to the Buyer Premises;

- loss of utilities to the Buyer Premises;

- loss of the Supplier's helpdesk or CAFM system;

- loss of a Subcontractor;

- emergency notification and escalation process;

- contact lists;

- staff training and awareness;

- BCDR Plan testing;

- post implementation review process;

- any applicable Performance Indicators with respect to the provision of the disaster recovery services and details of any agreed relaxation to the Performance Indicators or Service Levels in respect of the provision of other Deliverables during any period of invocation of the Disaster Recovery Plan;

- details of how the Supplier shall ensure compliance with security standards ensuring that compliance is maintained for any period during which the Disaster Recovery Plan is invoked;

- access controls to any disaster recovery sites used by the Supplier in relation to its obligations pursuant to this Schedule; and

- testing and management arrangements.

Review and changing the BCDR Plan

The Supplier shall review the BCDR Plan:

- on a regular basis and as a minimum once every six (6) Months;

- within three (3) calendar Months of the BCDR Plan (or any part) having been invoked pursuant to Paragraph **Error! Reference source not found.**; and

- where the Buyer requests in writing any additional reviews (over and above those provided for in Paragraphs 0 and 0 of this Schedule) whereupon the Supplier shall conduct such reviews in accordance with the Buyer's written requirements. Prior to starting its review, the Supplier shall provide an

accurate written estimate of the total costs payable by the Buyer for the Buyer's approval. The costs of both Parties of any such additional reviews shall be met by the Buyer except that the Supplier shall not be entitled to charge the Buyer for any costs that it may incur above any estimate without the Buyer's prior written approval.

Each review of the BCDR Plan pursuant to Paragraph 0 shall assess its suitability having regard to any change to the Deliverables or any underlying business processes and operations facilitated by or supported by the Services which have taken place since the later of the original approval of the BCDR Plan or the last review of the BCDR Plan, and shall also have regard to any occurrence of any event since that date (or the likelihood of any such event taking place in the foreseeable future) which may increase the likelihood of the need to invoke the BCDR Plan. The review shall be completed by the Supplier within such period as the Buyer shall reasonably require.

The Supplier shall, within twenty (20) Working Days of the conclusion of each such review of the BCDR Plan, provide to the Buyer a report (a **"Review Report"**) setting out the Supplier's proposals (the **"Supplier's Proposals"**) for addressing any changes in the risk profile and its proposals for amendments to the BCDR Plan.

Following receipt of the Review Report and the Supplier's Proposals, the Parties shall use reasonable endeavours to agree the Review Report and the Supplier's Proposals. If the Parties are unable to agree Review Report and the Supplier's Proposals within twenty (20) Working Days of its submission, then such Dispute shall be resolved in accordance with the Dispute Resolution Procedure.

The Supplier shall as soon as is reasonably practicable after receiving the approval of the Supplier's Proposals effect any change in its practices or procedures necessary so as to give effect to the Supplier's Proposals. Any such change shall be at the Supplier's expense unless it can be reasonably shown that the changes are required because of a material change to the risk profile of the Deliverables.

Testing the BCDR Plan

The Supplier shall test the BCDR Plan:

- regularly and in any event not less than once in every Contract Year;
- in the event of any major reconfiguration of the Deliverables
- at any time where the Buyer considers it necessary (acting in its sole discretion).

If the Buyer requires an additional test of the BCDR Plan, it shall give the Supplier written notice and the Supplier shall conduct the test in accordance with the Buyer's requirements and the relevant provisions of the BCDR Plan. The Supplier's costs of the additional test shall be borne by the Buyer unless the BCDR Plan fails the additional test in which case the Supplier's costs of that failed test shall be borne by the Supplier.

The Supplier shall undertake and manage testing of the BCDR Plan in full consultation with and under the supervision of the Buyer and shall liaise with the Buyer in respect of the planning, performance, and review, of each test, and shall comply with the reasonable requirements of the Buyer.

The Supplier shall ensure that any use by it or any Subcontractor of "live" data in such testing is first approved with the Buyer. Copies of live test data used in any such testing shall be (if so required by the Buyer) destroyed or returned to the Buyer on completion of the test.

The Supplier shall, within twenty (20) Working Days of the conclusion of each test, provide to the Buyer a report setting out:

the outcome of the test;

any failures in the BCDR Plan (including the BCDR Plan's procedures) revealed by the test; and

the Supplier's proposals for remedying any such failures.

Following each test, the Supplier shall take all measures requested by the Buyer to remedy any failures in the BCDR Plan and such remedial activity and re-testing shall be completed by the Supplier, at its own cost, by the date reasonably required by the Buyer.

Invoking the BCDR Plan

In the event of a complete loss of service or in the event of a Disaster, the Supplier shall immediately invoke the BCDR Plan (and shall inform the Buyer promptly of such invocation). In all other instances the Supplier shall invoke or test the BCDR Plan only with the prior consent of the Buyer.

Circumstances beyond your control

The Supplier shall not be entitled to relief under Clause 20 (Circumstances beyond your control) if it would not have been impacted by the Force Majeure Event had it not failed to comply with its obligations under this Schedule.

Order Schedule 9 (Security)

Part A: Short Form Security Requirements

Definitions

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

"Breach of Security" the occurrence of:

any unauthorised access to or use of the Deliverables, the Sites and/or any Information and Communication Technology ("ICT"), information or data (including the Confidential Information and the Government Data) used by the Buyer and/or the Supplier in connection with this Contract; and/or

the loss and/or unauthorised disclosure of any information or data (including the Confidential Information and the Government Data), including any copies of such information or data, used by the Buyer and/or the Supplier in connection with this Contract,

in either case as more particularly set out in the Security Policy where the Buyer has required compliance therewith in accordance with paragraph 2.2;

"Security Management Plan"

the Supplier's security management plan prepared pursuant to this Schedule, a draft of which has been provided by the Supplier to the Buyer and as updated from time to time;

Complying with security requirements and updates to them

The Buyer and the Supplier recognise that, where specified in DPS Schedule 4 (DPS Management), CCS shall have the right to enforce the Buyer's rights under this Schedule.

The Supplier shall comply with the requirements in this Schedule in respect of the Security Management Plan. Where specified by a Buyer that has undertaken a Further Competition it shall also comply with the Security Policy and shall ensure

that the Security Management Plan produced by the Supplier fully complies with the Security Policy.

Where the Security Policy applies the Buyer shall notify the Supplier of any changes or proposed changes to the Security Policy.

If the Supplier believes that a change or proposed change to the Security Policy will have a material and unavoidable cost implication to the provision of the Deliverables it may propose a Variation to the Buyer. In doing so, the Supplier must support its request by providing evidence of the cause of any increased costs and the steps that it has taken to mitigate those costs. Any change to the Charges shall be subject to the Variation Procedure.

Until and/or unless a change to the Charges is agreed by the Buyer pursuant to the Variation Procedure the Supplier shall continue to provide the Deliverables in accordance with its existing obligations.

Security Standards

The Supplier acknowledges that the Buyer places great emphasis on the reliability of the performance of the Deliverables, confidentiality, integrity and availability of information and consequently on security.

The Supplier shall be responsible for the effective performance of its security obligations and shall at all times provide a level of security which:

is in accordance with the Law and this Contract;

as a minimum demonstrates Good Industry Practice;

meets any specific security threats of immediate relevance to the Deliverables and/or the Government Data; and

where specified by the Buyer in accordance with paragraph 2.2 complies with the Security Policy and the ICT Policy.

The references to standards, guidance and policies contained or set out in Paragraph 0 shall be deemed to be references to such items as developed and updated and to any successor to or replacement for such standards, guidance and policies, as notified to the Supplier from time to time.

In the event of any inconsistency in the provisions of the above standards, guidance and policies, the Supplier should notify the Buyer's Representative of such inconsistency immediately upon becoming aware of the same, and the Buyer's Representative shall, as soon as practicable, advise the Supplier which provision the Supplier shall be required to comply with.

Security Management Plan

Introduction

The Supplier shall develop and maintain a Security Management Plan in accordance with this Schedule. The Supplier shall thereafter comply with its obligations set out in the Security Management Plan.

Content of the Security Management Plan

The Security Management Plan shall:

- comply with the principles of security set out in Paragraph **Error! Reference source not found.** and any other provisions of this Contract relevant to security;
- identify the necessary delegated organisational roles for those responsible for ensuring it is complied with by the Supplier;
- detail the process for managing any security risks from Subcontractors and third parties authorised by the Buyer with access to the Deliverables, processes associated with the provision of the Deliverables, the Buyer Premises, the Sites and any ICT, Information and data (including the Buyer's Confidential Information and the Government Data) and any system that could directly or indirectly have an impact on that Information, data and/or the Deliverables;
- be developed to protect all aspects of the Deliverables and all processes associated with the provision of the Deliverables, including the Buyer Premises, the Sites, and any ICT, Information and data (including the Buyer's Confidential Information and the Government Data) to the extent used by the Buyer or the Supplier in connection with this Contract or in connection with any system that could directly or indirectly have an impact on that Information, data and/or the Deliverables;
- set out the security measures to be implemented and maintained by the Supplier in relation to all aspects of the Deliverables and all processes associated with the provision of the Goods and/or Services and shall at all times comply with and specify security measures and procedures which are sufficient to ensure that the Deliverables comply with the provisions of this Contract;
- set out the plans for transitioning all security arrangements and responsibilities for the Supplier to meet the full obligations of the security requirements set out in this Contract and, where necessary in accordance with paragraph 2.2 the Security Policy; and
- be written in plain English in language which is readily comprehensible to the staff of the Supplier and the Buyer engaged in the provision of the Deliverables and shall only reference documents which are in the possession of the Parties or whose location is otherwise specified in this Schedule.

Development of the Security Management Plan

Within twenty (20) Working Days after the Start Date and in accordance with Paragraph 0, the Supplier shall prepare and deliver to the Buyer for Approval a fully complete and up to date Security Management Plan which will be based on the draft Security Management Plan.

If the Security Management Plan submitted to the Buyer in accordance with Paragraph 0, or any subsequent revision to it in accordance with Paragraph 0, is Approved it will be adopted immediately and will replace the previous

version of the Security Management Plan and thereafter operated and maintained in accordance with this Schedule. If the Security Management Plan is not Approved, the Supplier shall amend it within ten (10) Working Days of a notice of non-approval from the Buyer and re-submit to the Buyer for Approval. The Parties will use all reasonable endeavours to ensure that the approval process takes as little time as possible and in any event no longer than fifteen (15) Working Days from the date of its first submission to the Buyer. If the Buyer does not approve the Security Management Plan following its resubmission, the matter will be resolved in accordance with the Dispute Resolution Procedure.

The Buyer shall not unreasonably withhold or delay its decision to Approve or not the Security Management Plan pursuant to Paragraph 0. However a refusal by the Buyer to Approve the Security Management Plan on the grounds that it does not comply with the requirements set out in Paragraph 0 shall be deemed to be reasonable.

Approval by the Buyer of the Security Management Plan pursuant to Paragraph 0 or of any change to the Security Management Plan in accordance with Paragraph 0 shall not relieve the Supplier of its obligations under this Schedule.

Amendment of the Security Management Plan

The Security Management Plan shall be fully reviewed and updated by the Supplier at least annually to reflect:

- emerging changes in Good Industry Practice;

- any change or proposed change to the Deliverables and/or associated processes;

- where necessary in accordance with paragraph 2.2, any change to the Security Policy;

- any new perceived or changed security threats; and

- any reasonable change in requirements requested by the Buyer.

The Supplier shall provide the Buyer with the results of such reviews as soon as reasonably practicable after their completion and amendment of the Security Management Plan at no additional cost to the Buyer. The results of the review shall include, without limitation:

- suggested improvements to the effectiveness of the Security Management Plan;

- updates to the risk assessments; and

- suggested improvements in measuring the effectiveness of controls.

Subject to Paragraph 0, any change or amendment which the Supplier proposes to make to the Security Management Plan (as a result of a review carried out in accordance with Paragraph 0, a request by the Buyer or otherwise) shall be subject to the Variation Procedure.

The Buyer may, acting reasonably, Approve and require changes or amendments to the Security Management Plan to be implemented on timescales faster than set out in the Variation Procedure but, without prejudice to their effectiveness,

all such changes and amendments shall thereafter be subject to the Variation Procedure for the purposes of formalising and documenting the relevant change or amendment.

Security breach

Either Party shall notify the other in accordance with the agreed security incident management process (as detailed in the Security Management Plan) upon becoming aware of any Breach of Security or any potential or attempted Breach of Security.

Without prejudice to the security incident management process, upon becoming aware of any of the circumstances referred to in Paragraph 0, the Supplier shall:

immediately take all reasonable steps (which shall include any action or changes reasonably required by the Buyer) necessary to:

- minimise the extent of actual or potential harm caused by any Breach of Security;

- remedy such Breach of Security to the extent possible and protect the integrity of the Buyer and the provision of the Goods and/or Services to the extent within its control against any such Breach of Security or attempted Breach of Security;

- prevent an equivalent breach in the future exploiting the same cause failure; and

- as soon as reasonably practicable provide to the Buyer, where the Buyer so requests, full details (using the reporting mechanism defined by the Security Management Plan) of the Breach of Security or attempted Breach of Security, including a cause analysis where required by the Buyer.

In the event that any action is taken in response to a Breach of Security or potential or attempted Breach of Security that demonstrates non-compliance of the Security Management Plan with the Security Policy (where relevant in accordance with paragraph 2.2) or the requirements of this Schedule, then any required change to the Security Management Plan shall be at no cost to the Buyer.

Order Schedule 10 (Exit Management)

Definitions

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

"Exclusive Assets"	Supplier Assets used exclusively by the Supplier or a Key Subcontractor in the provision of the Deliverables;
"Exit Information"	has the meaning given to it in Paragraph 0 of this Schedule;
"Exit Manager"	the person appointed by each Party to manage their respective obligations under this Schedule;
"Net Book Value"	the current net book value of the relevant Supplier Asset(s) calculated in accordance with the DPS Application or Order Tender (if stated) or (if not stated) the depreciation policy of the Supplier (which the Supplier shall ensure is in accordance with Good Industry Practice);
"Non-Exclusive Assets"	those Supplier Assets used by the Supplier or a Key Subcontractor in connection with the Deliverables but which are also used by the Supplier or Key Subcontractor for other purposes;
"Registers"	the register and configuration database referred to in Paragraph 0 of this Schedule;
"Replacement Goods"	any goods which are substantially similar to any of the Goods and which the Buyer receives in substitution for any of the Goods following the End Date, whether those goods are provided by the Buyer internally and/or by any third party;
"Replacement Services"	any services which are substantially similar to any of the Services and which the Buyer receives in substitution for any of the Services following the End Date,

	whether those goods are provided by the Buyer internally and/or by any third party;
"Termination Assistance"	the activities to be performed by the Supplier pursuant to the Exit Plan, and other assistance required by the Buyer pursuant to the Termination Assistance Notice;
"Termination Assistance Notice"	has the meaning given to it in Paragraph 0 of this Schedule;
"Termination Assistance Period"	the period specified in a Termination Assistance Notice for which the Supplier is required to provide the Termination Assistance as such period may be extended pursuant to Paragraph 0 of this Schedule;
"Transferable Assets"	Exclusive Assets which are capable of legal transfer to the Buyer;
"Transferable Contracts"	Sub-Contracts, licences for Supplier's Software, licences for Third Party Software or other agreements which are necessary to enable the Buyer or any Replacement Supplier to provide the Deliverables or the Replacement Goods and/or Replacement Services, including in relation to licences all relevant Documentation;
"Transferring Assets"	has the meaning given to it in Paragraph 0 of this Schedule;
"Transferring Contracts"	has the meaning given to it in Paragraph 0 of this Schedule.

Supplier must always be prepared for contract exit

The Supplier shall within 30 days from the Start Date provide to the Buyer a copy of its depreciation policy to be used for the purposes of calculating Net Book Value.

During the Contract Period, the Supplier shall promptly:

create and maintain a detailed register of all Supplier Assets (including description, condition, location and details of ownership and status as either Exclusive Assets or Non-Exclusive Assets and Net Book Value) and Sub-contracts and other relevant agreements required in connection with the Deliverables; and

create and maintain a configuration database detailing the technical infrastructure and operating procedures through which the Supplier provides the Deliverables ("**Registers**").

The Supplier shall:

ensure that all Exclusive Assets listed in the Registers are clearly physically identified as such; and

procure that all licences for Third Party Software and all Sub-Contracts shall be assignable and/or capable of novation (at no cost or restriction to the Buyer) at the request of the Buyer to the Buyer (and/or its nominee) and/or any Replacement Supplier upon the Supplier ceasing to provide the Deliverables (or part of them) and if the Supplier is unable to do so then the Supplier shall promptly notify the Buyer and the Buyer may require the Supplier to procure an alternative Subcontractor or provider of Deliverables.

Each Party shall appoint an Exit Manager within three (3) Months of the Start Date. The Parties' Exit Managers will liaise with one another in relation to all issues relevant to the expiry or termination of this Contract.

Assisting re-competition for Deliverables

The Supplier shall, on reasonable notice, provide to the Buyer and/or its potential Replacement Suppliers (subject to the potential Replacement Suppliers entering into reasonable written confidentiality undertakings), such information (including any access) as the Buyer shall reasonably require in order to facilitate the preparation by the Buyer of any invitation to tender and/or to facilitate any potential Replacement Suppliers undertaking due diligence (the "**Exit Information**").

The Supplier acknowledges that the Buyer may disclose the Supplier's Confidential Information (excluding the Supplier's or its Subcontractors' prices or costs) to an actual or prospective Replacement Supplier to the extent that such disclosure is necessary in connection with such engagement.

The Supplier shall provide complete updates of the Exit Information on an as-requested basis as soon as reasonably practicable and notify the Buyer within five (5) Working Days of any material change to the Exit Information which may adversely impact upon the provision of any Deliverables (and shall consult the Buyer in relation to any such changes).

The Exit Information shall be accurate and complete in all material respects and shall be sufficient to enable a third party to prepare an informed offer for those Deliverables; and not be disadvantaged in any procurement process compared to the Supplier.

Exit Plan

The Supplier shall, within three (3) Months after the Start Date, deliver to the Buyer an Exit Plan which complies with the requirements set out in Paragraph 0 of this Schedule and is otherwise reasonably satisfactory to the Buyer.

The Parties shall use reasonable endeavours to agree the contents of the Exit Plan. If the Parties are unable to agree the contents of the Exit Plan within twenty (20) Working Days of the latest date for its submission pursuant to Paragraph 0, then such Dispute shall be resolved in accordance with the Dispute Resolution Procedure.

The Exit Plan shall set out, as a minimum:

- a detailed description of both the transfer and cessation processes, including a timetable;
- how the Deliverables will transfer to the Replacement Supplier and/or the Buyer;
- details of any contracts which will be available for transfer to the Buyer and/or the Replacement Supplier upon the Expiry Date together with any reasonable costs required to effect such transfer;
- proposals for the training of key members of the Replacement Supplier's staff in connection with the continuation of the provision of the Deliverables following the Expiry Date;
- proposals for providing the Buyer or a Replacement Supplier copies of all documentation relating to the use and operation of the Deliverables and required for their continued use;
- proposals for the assignment or novation of all services utilised by the Supplier in connection with the supply of the Deliverables;
- proposals for the identification and return of all Buyer Property in the possession of and/or control of the Supplier or any third party;
- proposals for the disposal of any redundant Deliverables and materials;
- how the Supplier will ensure that there is no disruption to or degradation of the Deliverables during the Termination Assistance Period; and
- any other information or assistance reasonably required by the Buyer or a Replacement Supplier.

The Supplier shall:

- maintain and update the Exit Plan (and risk management plan) no less frequently than:
 - every six (6) months throughout the Contract Period; and
 - no later than twenty (20) Working Days after a request from the Buyer for an up-to-date copy of the Exit Plan;
- as soon as reasonably possible following a Termination Assistance Notice, and in any event no later than ten (10) Working Days after the date of the Termination Assistance Notice;
- as soon as reasonably possible following, and in any event no later than twenty (20) Working Days following, any material change to the Deliverables (including all changes under the Variation Procedure); and
- jointly review and verify the Exit Plan if required by the Buyer and promptly correct any identified failures.

Only if (by notification to the Supplier in writing) the Buyer agrees with a draft Exit Plan provided by the Supplier under Paragraph 0 or 0 (as the context requires), shall that draft become the Exit Plan for this Contract.

A version of an Exit Plan agreed between the parties shall not be superseded by any draft submitted by the Supplier.

Termination Assistance

The Buyer shall be entitled to require the provision of Termination Assistance at any time during the Contract Period by giving written notice to the Supplier (a "**Termination Assistance Notice**") at least four (4) Months prior to the Expiry Date or as soon as reasonably practicable (but in any event, not later than one (1) Month) following the service by either Party of a Termination Notice. The Termination Assistance Notice shall specify:

- the nature of the Termination Assistance required; and

- the start date and period during which it is anticipated that Termination Assistance will be required, which shall continue no longer than twelve (12) Months after the date that the Supplier ceases to provide the Deliverables.

The Buyer shall have an option to extend the Termination Assistance Period beyond the Termination Assistance Notice period provided that such extension shall not extend for more than six (6) Months beyond the end of the Termination Assistance Period and provided that it shall notify the Supplier of such this extension no later than twenty (20) Working Days prior to the date on which the provision of Termination Assistance is otherwise due to expire. The Buyer shall have the right to terminate its requirement for Termination Assistance by serving not less than (20) Working Days' written notice upon the Supplier.

In the event that Termination Assistance is required by the Buyer but at the relevant time the parties are still agreeing an update to the Exit Plan pursuant to Paragraph **Error! Reference source not found.**, the Supplier will provide the Termination Assistance in good faith and in accordance with the principles in this Schedule and the last Buyer approved version of the Exit Plan (insofar as it still applies).

Termination Assistance Period

Throughout the Termination Assistance Period the Supplier shall:

- continue to provide the Deliverables (as applicable) and otherwise perform its obligations under this Contract and, if required by the Buyer, provide the Termination Assistance;

- provide to the Buyer and/or its Replacement Supplier any reasonable assistance and/or access requested by the Buyer and/or its Replacement Supplier including assistance and/or access to facilitate the orderly transfer of responsibility for and conduct of the Deliverables to the Buyer and/or its Replacement Supplier;

- use all reasonable endeavours to reallocate resources to provide such assistance without additional costs to the Buyer;

- subject to Paragraph 0, provide the Deliverables and the Termination Assistance at no detriment to the Performance Indicators (PI's) or Service Levels, the provision of the Management Information or any other reports nor to any other of the Supplier's obligations under this Contract;

- at the Buyer's request and on reasonable notice, deliver up-to-date Registers to the Buyer;

- seek the Buyer's prior written consent to access any Buyer Premises from which the de-installation or removal of Supplier Assets is required.

If it is not possible for the Supplier to reallocate resources to provide such assistance as is referred to in Paragraph 0 without additional costs to the Buyer, any additional costs incurred by the Supplier in providing such reasonable assistance shall be subject to the Variation Procedure.

If the Supplier demonstrates to the Buyer's reasonable satisfaction that the provision of the Termination Assistance will have a material, unavoidable adverse effect on the Supplier's ability to meet one or more particular Service Levels, the Parties shall vary the relevant Service Levels and/or the applicable Service Credits accordingly.

Obligations when the contract is terminated

The Supplier shall comply with all of its obligations contained in the Exit Plan.

Upon termination or expiry or at the end of the Termination Assistance Period (or earlier if this does not adversely affect the Supplier's performance of the Deliverables and the Termination Assistance), the Supplier shall:

- vacate any Buyer Premises;

- remove the Supplier Equipment together with any other materials used by the Supplier to supply the Deliverables and shall leave the Sites in a clean, safe and tidy condition. The Supplier is solely responsible for making good any damage to the Sites or any objects contained thereon, other than fair wear and tear, which is caused by the Supplier;

- provide access during normal working hours to the Buyer and/or the Replacement Supplier for up to twelve (12) Months after expiry or termination to:

 - such information relating to the Deliverables as remains in the possession or control of the Supplier; and

 - such members of the Supplier Staff as have been involved in the design, development and provision of the Deliverables and who are still employed by the Supplier, provided that the Buyer and/or the Replacement Supplier shall pay the reasonable costs of the Supplier actually incurred in responding to such requests for access.

Except where this Contract provides otherwise, all licences, leases and authorisations granted by the Buyer to the Supplier in relation to the Deliverables shall be terminated with effect from the end of the Termination Assistance Period.

Assets, Sub-contracts and Software

Following notice of termination of this Contract and during the Termination Assistance Period, the Supplier shall not, without the Buyer's prior written consent:

- terminate, enter into or vary any Sub-contract or licence for any software in connection with the Deliverables; or

- (subject to normal maintenance requirements) make material modifications to, or dispose of, any existing Supplier Assets or acquire any new Supplier Assets.

Within twenty (20) Working Days of receipt of the up-to-date Registers provided by the Supplier, the Buyer shall notify the Supplier setting out:

which, if any, of the Transferable Assets the Buyer requires to be transferred to the Buyer and/or the Replacement Supplier ("**Transferring Assets**");

which, if any, of:

the Exclusive Assets that are not Transferable Assets; and

the Non-Exclusive Assets,

the Buyer and/or the Replacement Supplier requires the continued use of; and

which, if any, of Transferable Contracts the Buyer requires to be assigned or novated to the Buyer and/or the Replacement Supplier (the "**Transferring Contracts**"),

in order for the Buyer and/or its Replacement Supplier to provide the Deliverables from the expiry of the Termination Assistance Period. The Supplier shall provide all reasonable assistance required by the Buyer and/or its Replacement Supplier to enable it to determine which Transferable Assets and Transferable Contracts are required to provide the Deliverables or the Replacement Goods and/or Replacement Services.

With effect from the expiry of the Termination Assistance Period, the Supplier shall sell the Transferring Assets to the Buyer and/or the Replacement Supplier for their Net Book Value less any amount already paid for them through the Charges.

Risk in the Transferring Assets shall pass to the Buyer or the Replacement Supplier (as appropriate) at the end of the Termination Assistance Period and title shall pass on payment for them.

Where the Buyer and/or the Replacement Supplier requires continued use of any Exclusive Assets that are not Transferable Assets or any Non-Exclusive Assets, the Supplier shall as soon as reasonably practicable:

procure a non-exclusive, perpetual, royalty-free licence for the Buyer and/or the Replacement Supplier to use such assets (with a right of sub-licence or assignment on the same terms); or failing which

procure a suitable alternative to such assets, the Buyer or the Replacement Supplier to bear the reasonable proven costs of procuring the same.

The Supplier shall as soon as reasonably practicable assign or procure the novation of the Transferring Contracts to the Buyer and/or the Replacement Supplier. The Supplier shall execute such documents and provide such other assistance as the Buyer reasonably requires to effect this novation or assignment.

The Buyer shall:

accept assignments from the Supplier or join with the Supplier in procuring a novation of each Transferring Contract; and

once a Transferring Contract is novated or assigned to the Buyer and/or the Replacement Supplier, discharge all the obligations and liabilities created by or arising under that Transferring Contract and exercise its rights arising under that

Transferring Contract, or as applicable, procure that the Replacement Supplier does the same.

The Supplier shall hold any Transferring Contracts on trust for the Buyer until the transfer of the relevant Transferring Contract to the Buyer and/or the Replacement Supplier has taken place.

The Supplier shall indemnify the Buyer (and/or the Replacement Supplier, as applicable) against each loss, liability and cost arising out of any claims made by a counterparty to a Transferring Contract which is assigned or novated to the Buyer (and/or Replacement Supplier) pursuant to Paragraph 0 in relation to any matters arising prior to the date of assignment or novation of such Transferring Contract. Clause 19 (Other people's rights in this contract) shall not apply to this Paragraph 0 which is intended to be enforceable by Third Parties Beneficiaries by virtue of the CRTPA.

No charges

Unless otherwise stated, the Buyer shall not be obliged to pay for costs incurred by the Supplier in relation to its compliance with this Schedule.

Dividing the bills

All outgoings, expenses, rents, royalties and other periodical payments receivable in respect of the Transferring Assets and Transferring Contracts shall be apportioned between the Buyer and/or the Replacement and the Supplier as follows:

the amounts shall be annualised and divided by 365 to reach a daily rate;

the Buyer or Replacement Supplier (as applicable) shall be responsible for or entitled to (as the case may be) that part of the value of the invoice pro rata to the number of complete days following the transfer, multiplied by the daily rate; and

the Supplier shall be responsible for or entitled to (as the case may be) the rest of the invoice.

Order Schedule 14 (Service Levels)

1. Definitions

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

"Critical Service Level Failure"	has the meaning given to it in the Order Form;
"Service Credits"	any service credits specified in the Annex to Part A of this Schedule being payable by the Supplier to the Buyer in respect of any failure by the Supplier to meet one or more Service Levels;
"Service Credit Cap"	has the meaning given to it in the Order Form;
"Service Level Failure"	means a failure to meet the Service Level Performance Measure in respect of a Service Level;
"Service Level Performance Measure"	shall be as set out against the relevant Service Level in the Annex to Part A of this Schedule; and
"Service Level Threshold"	shall be as set out against the relevant Service Level in the Annex to Part A of this Schedule.

2. What happens if you don't meet the Service Levels

The Supplier shall at all times provide the Deliverables to meet or exceed the Service Level Performance Measure for each Service Level.

The Supplier acknowledges that any Service Level Failure shall entitle the Buyer to the rights set out in Part A of this Schedule including the right to any Service Credits and that any Service Credit is a price adjustment and not an estimate of the Loss that may be suffered by the Buyer as a result of the Supplier's failure to meet any Service Level Performance Measure.

The Supplier shall send Performance Monitoring Reports to the Buyer detailing the level of service which was achieved in accordance with the provisions of Part B (Performance Monitoring) of this Schedule.

A Service Credit shall be the Buyer's exclusive financial remedy for a Service Level Failure except where:

1. the Supplier has over the previous (twelve) 12 Month period exceeded the Service Credit Cap; and/or
2. the Service Level Failure:
 1. exceeds the relevant Service Level Threshold;
 2. has arisen due to a Prohibited Act or wilful Default by the Supplier;

3. results in the corruption or loss of any Government Data; and/or
4. results in the Buyer being required to make a compensation payment to one or more third parties; and/or
3. the Buyer is otherwise entitled to or does terminate this Contract pursuant to Clause 10.4 (CCS and Buyer Termination Rights).

Not more than once in each Contract Year, the Buyer may, on giving the Supplier at least three (3) Months' notice, change the weighting of Service Level Performance Measure in respect of one or more Service Levels and the Supplier shall not be entitled to object to, or increase the Charges as a result of such changes, provided that:

4. the total number of Service Levels for which the weighting is to be changed does not exceed the number applicable as at the Start Date;
5. the principal purpose of the change is to reflect changes in the Buyer's business requirements and/or priorities or to reflect changing industry standards; and
6. there is no change to the Service Credit Cap.

3. Critical Service Level Failure

On the occurrence of a Critical Service Level Failure:

any Service Credits that would otherwise have accrued during the relevant Service Period shall not accrue; and

the Buyer shall (subject to the Service Credit Cap) be entitled to withhold and retain as compensation a sum equal to any Charges which would otherwise have been due to the Supplier in respect of that Service Period ("Compensation for Critical Service Level Failure"),

provided that the operation of this paragraph **Error! Reference source not found.** shall be without prejudice to the right of the Buyer to terminate this Contract and/or to claim damages from the Supplier for material Default.

Part A: Service Levels and Service Credits

Service Levels

If the level of performance of the Supplier:
is likely to or fails to meet any Service Level Performance Measure; or
is likely to cause or causes a Critical Service Failure to occur,
the Supplier shall immediately notify the Buyer in writing and the Buyer, in its absolute discretion and without limiting any other of its rights, may:

- 1.2.1 require the Supplier to immediately take all remedial action that is reasonable to mitigate the impact on the Buyer and to rectify or prevent a Service Level Failure or Critical Service Level Failure from taking place or recurring;
- 1.2.2 instruct the Supplier to comply with the Rectification Plan Process;
- 1.2.3 if a Service Level Failure has occurred, deduct the applicable Service Level Credits payable by the Supplier to the Buyer; and/or
- 1.2.4 if a Critical Service Level Failure has occurred, exercise its right to Compensation for Critical Service Level Failure (including the right to terminate for material Default).

Service Credits

The Buyer shall use the Performance Monitoring Reports supplied by the Supplier to verify the calculation and accuracy of the Service Credits, if any, applicable to each Service Period.

Service Credits are a reduction of the amounts payable in respect of the Deliverables and do not include VAT. The Supplier shall set-off the value of any Service Credits against the appropriate invoice in accordance with calculation formula in the Annex to Part A of this Schedule.

Annex A to Part A: Services Levels Table

Key Performance Indicator (KPI)	KPI Target	Measured by / Key indicator	Service level performance measure	Service Level Threshold	Service Credit for each Service Period
Response to briefs: Quick-turnaround briefs: respond within 1 working day with indicative costs and timelines (i.e. omnibus, qual)	95%	Confirmation by DSIT Timeline: For quick turnaround brief, within 1 working day between DSIT emailing the request to the supplier and DSIT receiving an appropriately completed proposal in the agreed format/template.	95% within 1 working day	95% within 48 hours	0.5% Service Credit gained for each percentage under the specified Service Level Performance Measure
All other briefs: respond within 5 working days with a full proposal.	95%	a. Acknowledgement within 1 day b. 5 working days between DSIT emailing the request to the supplier and DSIT receiving an appropriately completed proposal in the agreed format/template.	a. 99% acknowledged within 1 day, b. 95% completed proposal within 5 days	a. 99% b. 7 days	0.5% Service Credit gained for each percentage under the specified Service Level Performance Measure
Attendance by relevant project lead(s) only at weekly status calls	100%	Confirmation by DSIT / attendance at all weekly meetings. If the relevant project lead is unavailable the supplier should let DSIT know at least one working day before the meeting, and make sure that a representative from the supplier is at the meeting and can cover the content.	100% attendance per month	80% attendance per month	0.5% Service Credit gained for each percentage under the specified Service Level Performance Measure
Weekly maintenance of a status tracker, including project timings, costs & spend against contract, leads etc	90%	Confirmation by DSIT / tracker updated weekly	90%	75%	0.5% Service Credit gained for each percentage under the specified Service Level

					Performance Measure
Issue the status tracker 1 working day in advance of the weekly status call to DSIT	90%	Confirmation by DSIT / supplier to email DSIT the status tracker and agenda for regular weekly meeting, 1 working day ahead of the meeting.	90%	75%	0.5% Service Credit gained for each percentage under the specified Service Level Performance Measure
Respond to finance queries within half a working day, and suggested solution/next steps within one working day.	90%	<p>a. Confirmation by DSIT / acknowledge receipt of query from DSIT within half a working day of receiving it.</p> <p>b. Suggest solution/next steps to resolve the query within one working day of receiving query from DSIT. Either by phone and email, or just email (depending on the complexity of the query).</p>	<p>A. -90% acknowledge query within half a working day.</p> <p>b.-90% respond with solution/suggested next steps within 1 working day.</p>	<p>A. 75% acknowledge query within half a working day.</p> <p>b. 75% respond with solution/suggested next steps within 1 working day.</p>	0.5% Service Credit gained for each percentage under the specified Service Level Performance Measure
Respond to or acknowledge receipt of queries within half a working day, and suggested solution/next steps within one working day.	90%	<p>a. Confirmation by DSIT / acknowledge receipt of query from DSIT within half a working day of receiving it.</p> <p>b. Suggest solution/next steps to resolve the query within one working day of receiving query from DSIT. Either by phone and email, or just email (depending on the complexity of the query).</p>	<p>A. 90% acknowledge query within half a working day.</p> <p>b. 90% respond with solution within 1 working day.</p>	<p>a. - 75% acknowledge query within half a working day.</p> <p>b. 75% respond with solution within 1 working day.</p>	0.5% Service Credit gained for each percentage under the specified Service Level Performance Measure

Consideration of innovative research methodologies & outputs within budget. Supplier to host an innovation session quarterly for the DSIT team where they (supplier) present a range of enhanced / innovative research methods that they could add to the toolkit for the remainder of the contract and use on relevant research projects.	100%	Confirmation by DSIT / Ensure delivery of 4 innovation sessions per year.	100% of innovation sessions delivered	75% of innovation sessions delivered	0.5% Service Credit gained for each percentage under the specified Service Level Performance Measure
Delivery of research findings by agreed deadlines	95%	Confirmation by DSIT	95% of deadlines met	90% of deadlines met	0.5% Service Credit gained for each percentage under the specified Service Level Performance Measure

The Service Credits shall be calculated on the basis of the following formula:

Formula: $x\% \text{ (Service Level Performance Measure)} - x\% \text{ (actual Service Level performance)}$ = $x\%$ of the Charges payable to the Buyer as Service Credits to be deducted from the next Invoice payable by the Buyer

Worked example: 98% (e.g. Service Level Performance Measure). Performance only achieves 75% (e.g. actual performance achieved against this Service Level in a Service Period) = 23% of the Charges payable to the Buyer as Service Credits to be deducted from the next Invoice payable by the Buyer

Part B: Performance Monitoring

Performance Monitoring and Performance Review

Within twenty (20) Working Days of the Start Date the Supplier shall provide the Buyer with details of how the process in respect of the monitoring and reporting of Service Levels will operate between the Parties and the Parties will endeavour to agree such process as soon as reasonably possible.

The Supplier shall provide the Buyer with performance monitoring reports ("**Performance Monitoring Reports**") in accordance with the process and timescales agreed pursuant to paragraph **Error! Reference source not found.** of Part B of this Schedule which shall contain, as a minimum, the following information in respect of the relevant Service Period just ended:

- for each Service Level, the actual performance achieved over the Service Level for the relevant Service Period;
- a summary of all failures to achieve Service Levels that occurred during that Service Period;
- details of any Critical Service Level Failures;
- for any repeat failures, actions taken to resolve the underlying cause and prevent recurrence;
- the Service Credits to be applied in respect of the relevant period indicating the failures and Service Levels to which the Service Credits relate; and
- such other details as the Buyer may reasonably require from time to time.

The Parties shall attend meetings to discuss Performance Monitoring Reports ("**Performance Review Meetings**") on a Monthly basis. The Performance Review Meetings will be the forum for the review by the Supplier and the Buyer of the Performance Monitoring Reports. The Performance Review Meetings shall:

- take place within one (1) week of the Performance Monitoring Reports being issued by the Supplier at such location and time (within normal business hours) as the Buyer shall reasonably require;
- be attended by the Supplier's Representative and the Buyer's Representative; and
- be fully minuted by the Supplier and the minutes will be circulated by the Supplier to all attendees at the relevant meeting and also to the Buyer's Representative and any other recipients agreed at the relevant meeting.

The minutes of the preceding Month's Performance Review Meeting will be agreed and signed by both the Supplier's Representative and the Buyer's Representative at each meeting.

The Supplier shall provide to the Buyer such documentation as the Buyer may reasonably require in order to verify the level of the performance by the Supplier and the calculations of the amount of Service Credits for any specified Service Period.

Satisfaction Surveys

The Buyer may undertake satisfaction surveys in respect of the Supplier's provision of the Deliverables. The Buyer shall be entitled to notify the Supplier of any aspects of their performance of the provision of the Deliverables which the responses to the Satisfaction Surveys reasonably suggest are not in accordance with this Contract.

Order Schedule 15

(Order Contract Management)

Definitions

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

"Project Manager" the manager appointed in accordance with paragraph 0 of this Schedule;

Project Management

The Supplier and the Buyer shall each appoint a Project Manager for the purposes of this Contract through whom the provision of the Services and the Deliverables shall be managed day-to-day.

The Parties shall ensure that appropriate resource is made available on a regular basis such that the aims, objectives and specific provisions of this Contract can be fully realised.

Role of the Supplier Contract Manager

The Supplier's Contract Manager shall be:

the primary point of contact to receive communication from the Buyer and will also be the person primarily responsible for providing information to the Buyer;

able to delegate his position to another person at the Supplier but must inform the Buyer before proceeding with the delegation and it will be the delegated person's responsibility to fulfil the Contract Manager's responsibilities and obligations;

able to cancel any delegation and recommence the position himself; and

replaced only after the Buyer has received notification of the proposed change.

The Buyer may provide revised instructions to the Supplier's Contract Manager in regards to the Contract and it will be the Supplier's Contract Manager's responsibility to ensure the information is provided to the Supplier and the actions implemented.

Receipt of communication from the Supplier's Contract Manager by the Buyer does not absolve the Supplier from its responsibilities, obligations or liabilities under the Contract.

Contract Risk Management

Both Parties shall pro-actively manage risks attributed to them under the terms of this Order Contract.

The Supplier shall develop, operate, maintain and amend, as agreed with the Buyer, processes for:

- the identification and management of risks;
- the identification and management of issues; and
- monitoring and controlling project plans.

The Supplier allows the Buyer to inspect at any time within working hours the accounts and records which the Supplier is required to keep.

The Supplier will maintain a risk register of the risks relating to the Order Contract which the Buyer and the Supplier have identified.

Order Schedule 20 (Order Specification)

Title: Spectrum Sandboxes

Tender Reference: itt Spectrum Sandbox ITT: itt_51276

Spectrum Sandboxes Specification

The Department for Science, Innovation and Technology (DSIT) was created in February 2023 to bring together the relevant parts of the former Department for Business, Energy and Industrial Strategy and the former Department for Digital, Culture, Media and Sport.

It is responsible for:

- positioning the UK at the forefront of global scientific and technological advancement
- driving innovations that change lives and sustain economic growth
- delivering talent programmes, physical and digital infrastructure and regulation to support our economy, security and public services
- R&D funding

The UK needs to promote a diverse research and innovation system that connects discovery to new companies, growth and jobs - including by delivering world-class physical and digital infrastructure (such as gigabit broadband), making the UK the best place to start and grow a technology business and developing and attracting top talent.

DSIT exists to take the lead in delivering these priorities.

To find out more about our work visit the DSIT website at

<https://www.gov.uk/government/organisations/department-for-science-innovation-and-technology>

Summary of Requirement

DSIT is seeking to engage with providers to deliver a set of spectrum 'sandboxes' to explore the scope of a greater intensity of spectrum sharing between similar and different service types. Such spectrum sandboxes are in effect practical field trials complemented and enriched by desk-based simulations and analyses. The providers may work alone or in a consortium. The providers will consider the scope, potential, and net benefits of the relevant sharing approaches and associated economic and regulatory considerations.

The primary objective of this project is to provide data and inform government and Ofcom on the possibilities and role of more intensive spectrum sharing, supported by an appropriate authorisation model.

The assessment will involve:

1. Practical measurements of real wireless networks and testing of new spectrum sharing solutions to establish opportunities for more intensive sharing without [harmful interference](#).
2. System simulations and modelling to extend the applicability of the measurements and other data sources to other sharing parameters and scenarios, larger-scale network scenarios and differing spectrum management techniques.
3. Analysis of economic benefits and costs taking account of the learnings from practical measurements and simulations. A discussion of options for potential regulatory mechanisms and tools that maximise the benefits of shared and hybrid licencing approaches in a spectrum band.

The assessment will seek to further the aims set out in the Government's [Spectrum Statement](#) and Ofcom's [Spectrum Roadmap](#).

Policy Context to Requirement

The electro-magnetic spectrum (spectrum) is an essential input to the provision of reliable, secure, and innovative wireless communication and other services. As the UK communications regulator, Ofcom has a duty to ensure optimal use of spectrum and to ensure that a wide range of electronic communications services is available throughout the UK.

As electronic communications technology has become more widely and intensively used, the challenge of ensuring that the finite spectrum is allocated optimally to different services, and assigned efficiently to different users has intensified. This study seeks to inform government and Ofcom on the role of spectrum sharing, and the scope for increased sharing, supported by appropriate authorisation models.

Traditional spectrum allocation and assignment followed a command-and-control model with spectrum awarded by licence with tight restrictions on usage and technology. Fees were set administratively.

Following the formation of Ofcom and the publication of the Communications Act 2003, market mechanisms were applied to the management of spectrum in the UK, with the advent of auctions for national mobile spectrum, the ability to trade spectrum, administrative incentive (spectrum) pricing and the liberalisation of spectrum to allow flexibility in the applications and technology. This built on much earlier academic work by Coase¹ and others to show the potential for pricing mechanisms to deliver higher societal and economic value than purely administrative approaches.

In parallel, the use of devices that do not need a licence has expanded, creating value via applications such as Wi-Fi, enabled by technologies which can mitigate and avoid the effects of *harmful interference*². This builds on the economic theory of commons³.

A series of developments are driving the need and opportunity to explore more flexible and adaptive sharing frameworks to facilitate innovation and growth. These developments include the growth in demand for wireless communication solutions from both businesses and consumers, and technological developments that enable the use of higher frequency spectrum and systems that rapidly shift frequency in response to both the surroundings and centralised instruction.

Ofcom's [Spectrum Roadmap](#) sets out the importance of accelerating innovation and sharing and of using more real-world data to improve propagation models and inform spectrum authorisation

decisions to enhance the efficiency of spectrum allocation.

To meet the growing demand from existing and new users, different solutions have been developed internationally including:

- ✧ TV White Spaces, launched by Ofcom in 2016, and supported by multiple databases enabling access to unused spectrum.
- ✧ The US' [Citizens Broadband Radio Service \(CBRS\)](#), sharing spectrum between incumbent users and new users via a mix of database-driven access and local area spectrum auctions
- ✧ Germany's initiative to reserve spectrum in the in the 3.7-3.8GHz bands for localised use, through private networks.
- ✧ [Ofcom's shared access licences](#), enabling local access to mobile spectrum on a first-come first-served basis for administrative fees.
- ✧ [Ofcom's local access licences](#), enabling mobile spectrum awarded under a national licence to be authorised locally if not in use.
- ✧ Ofcom's [proposals to award 26 GHz spectrum](#) on a hybrid basis, with local auctions in high density areas, and on a first-come first-served basis elsewhere.
- ✧ Ofcom's [proposals to enable access to the upper 6 GHz band](#) on a hybrid basis, with mobile and Wi-Fi able to share use of the band on a local and potentially dynamic basis.

Our intention to explore the opportunities and challenges of enhanced spectrum sharing solutions, working with Ofcom through spectrum sandboxes, was detailed in our [Spectrum Statement](#), published in April 2023. In the Statement we emphasised that spectrum management should promote innovation and investment alongside consumer-focused outcomes. We also set out our intention to work with Ofcom to maximise the benefits from innovation in spectrum applications and services and consider the need for spectrum-focused innovation support, including opportunities to maximise the value generated through Ofcom's spectrum sandboxes.

Study questions arising from the approach to spectrum set out in the Statement include but are not limited to:

- ✧ Interference tolerance: How much more intensively can different services and deployments share spectrum without causing harmful interference to each other?
- ✧ Spectrum sharing: Can new technologies and methodologies deliver net benefits in terms of more efficient use of spectrum and flexibility in the cost and performance of wireless systems?
- ✧ Better Data: The extent to which deployed network equipment and user devices can make measurements of the radio environment that can inform regulatory operational and policy activities and form the basis of more adaptive and dynamic spectrum authorisations in the future.
- ✧ Net benefits: Under what market and technological circumstances is a more intensive sharing approach beneficial for spectrum users, and how can those benefits (and offsetting costs) be quantified?
- ✧ Under various case studies, how do intensive sharing approaches respond to changes in market, demand and technology conditions?
- ✧ How do more intensive sharing approaches impact business cases and investment decisions for stakeholders?
- ✧ What are the associated regulatory and authorisation implications and options?

It is intended that results of the research will contribute to the wider body of background knowledge and evidence to help inform industry, as well as HMG's and Ofcom's ongoing policy work.

Work packages overview

The study to address these research questions will require a multidisciplinary approach, and shall comprise the below three work packages (WP):

- ✎ **WP1: Practical testbeds** to allow field measurements, collecting and sharing data and testing of new spectrum sharing solutions, within a spectrum sandbox context (facilitated by Ofcom). This will inform the selection of parameters for the simulations and validate and illustrate their outcomes. A minimum of one pair of sharing systems should be evaluated in this work package.
- ✎ **WP2: Simulation and modelling** to assess the applicability of the sharing solutions developed in WP1 and/or other solutions to a wider range of technical parameters, locations, frequencies, and technologies than would be feasible in the field measurements. It is envisaged that WP2 will make extensive use of computer simulations and modelling.
- ✎ **WP3: economic assessment and regulatory consideration** to assess the net benefits to spectrum users of the sharing approaches studied in WP1 and WP2 and consider the regulatory tools required to implement these approaches in practice.

These work packages, while utilising data from one another wherever possible, can be undertaken simultaneously or in any chronological order that those delivering the work deem to be appropriate, as long as requirements are met in full.

It is expected that each project would be run by either an individual organisation delivering all three work packages or, given the multidisciplinary nature of the work packages, a consortium approach could also be taken. A consortium approach will require a tight integration of activities to ensure a consistent approach to the research questions. In a consortia scenario, a project lead would need to be agreed and appointed in advance of application. Applicants must be willing to share the data from their work package with other work package participants within the relevant sandbox project.

The work packages will likely need to run concurrently to deliver the work within the period available and will need to be closely coordinated to inform each other as results emerge from each.

Work package requirements

Requirements for the three work packages are set out below:

WP1: Practical measurements via Spectrum Sandbox

Objectives

The primary objectives of WP1 are to undertake practical field trials to:

- Use network equipment and user devices to make measurements of the radio environment,

including measurements and characterisation of spectrum utilisation, noise floor and interference.

- Develop and demonstrate proof of concept solutions for sharing measurement data and associated metrics with Ofcom and DSIT.
- Develop and test technical solutions that increase the level of spectrum sharing relative to current spectrum authorisation and access methods.

Networks and Technologies to be studied

The measurements in each sharing scenario to be investigated should be conducted between two or more systems of differing technology types and/or between two or more independently operated networks and services using the same technology type. The research should assess the nature of coexistence between the systems under current authorisation rules and modelling assumptions (where applicable) and then run experiments to assess the efficacy of candidate sharing solutions for increased levels of sharing.

Test systems 'pairs' could include, but are not limited to:

1. Wi-Fi and Mobile
2. Independently operated private networks
3. Mobile and Fixed Links
4. Public sector systems, such as Defence systems and Mobile or other networks
5. Mobile and satellite: direct to device satellite in mobile bands
6. Mobile and satellite: Terrestrial mobile in FSS or MSS bands or vice versa
7. Mobile and airborne NTN: Airborne base stations in mobile bands
8. UWB and Mobile
9. Receive-only users (such as scientific applications) and Mobile.

At least one pair of systems should be studied within WP1 in each project. These pair(s), plus additional pairs should be considered in WP2.

The three WPs are not intended to be run sequentially, but to run in parallel with strong links between them. The details of the approach to managing these WPs are to be proposed by the bidders.

Note: Developing optimal solutions for spectrum sharing in the upper 6GHz (mobile and Wi-Fi, mobile and fixed links, mobile and satellite) and improving efficiency of sharing in the n77 Shared Access bands (e.g. two of more independently operated 5G networks) is a focus of Ofcom's current policy work. Ofcom is particularly interested in optimal sharing solutions for these technologies and bands, though others may additionally be included. Government is also particularly interested in developing optimal sharing solutions between public sector systems, such as defence, and other networks.

Field measurements will be used to assess the nature of the radio environment and performance of the systems under test. Measurements should be made on, and using, real world network equipment and user devices that have either already been deployed, new equipment deployed as part of the project, or a combination of both. Where commercially available equipment is not available prototype equipment should be used.

Measurements should be made using diagnostic and performance parameters generated by the network equipment and user equipment and extracted from management systems. Where appropriate, test equipment should be used to assess and validate the accuracy of measurements obtained from the equipment and provide insight into additional metrics.

Data sharing

A proof-of-concept data sharing solution should be developed to assess opportunities for systems of the future to share ongoing data on their operation and performance with the spectrum manager/regulator. This data could facilitate a regulator's operational spectrum assurance and compliance activities (e.g. to identify and address harmful interference) as well as inform future improvements in spectrum management methods and efficiency of spectrum use, e.g. through reflecting real-world data when deciding on spectrum authorisations. This proof-of-concept should include a functional stub for the regulatory end of the interface, actual integration to Ofcom is not required. The stub should allow demonstration of the end-to-end proof-of-concept.

Consideration should be given to:

- ⌘ Identifying the most relevant metrics from each layer of the Open Systems Interconnection (OSI) stack of the systems to be shared and the extent to which each metric is technology specific or technology neutral.
- ⌘ Development of algorithms and pre-processing of 'raw' metrics to produce aggregate metrics that improve insight whilst reducing data volumes. For example, identifying technologies from received waveforms and/or partial decoding to extract identifiers or utilisation and performance statistics.
- ⌘ The practicality of providing data given the capabilities of existing and future systems without imposing onerous extra costs, such as the existing ability of mobile devices to report measured equipment to base stations.
- ⌘ The arrangements for sharing the data, such as the format, frequency, timeliness, and technical operation.
- ⌘ The potential for creating a standardised "interference API" to allow interference incidents to be reported in real time from a variety of network technology types to allow prompt action by Ofcom.
- ⌘ The potential for creating a standardised "utilisation API" to allow utilisation metrics to be reported in real time from a variety of network technology types. Such data could form part of a more dynamic spectrum allocation system in the future.
- ⌘ Any challenges with sharing and making use of the data, such as security, confidentiality, accuracy and calibration, data volumes etc.
- ⌘ Opportunities for regulators to derive greater value by aggregating and processing data from multiple sources e.g. improved insight into the source and nature of interference or the radio environment and spectrum utilisation more generally.
- ⌘ Visualisation of data to showcase the insights that can be derived from it.

Improved spectrum sharing

Candidate spectrum sharing solutions should be developed and tested to assess impact on

performance of deployed systems and improve efficiency of spectrum use. Candidate pairs may be selected from the list given above or beyond this list, taking account the note on Ofcom's and government's preferential interests.

The systems assessed should share spectrum more intensively than would currently be possible in terms such as:

- ⊄ Having a reduced separation distance between transmitters and receivers of the different systems.
- ⊄ Operating at higher transmit powers or transmitter heights.
- ⊄ Operating at lower power.
- ⊄ Producing larger adjacent and out of band interference, or reduced receiver selectivity and blocking performance, than is currently permitted but without causing or suffering intolerable interference.
- ⊄ Operating at reduced channel spacing or with smaller guard bands.
- ⊄ Operating with improved protocols, antenna technologies (including advanced MIMO), sensing, autonomous and coordinated spectrum access techniques to enable more dynamic use of spectrum in space, frequency and time.
- ⊄ Actively managing signal strength produced outside of the desired coverage area to reduce interference.
- ⊄ Operating dynamically and adapting to context by, for example, shifting channels where necessary for ensuring efficient use.

The performance of the systems involved should be assessed against a range of relevant performance parameters, which might include parameters such as:

- ⊄ System coverage area
- ⊄ System capacity
- ⊄ User Quality of Experience (QoE), including data speeds, latency, packet loss and consistency/predictability

The assessment should clearly set out both how the systems' ability to operate is enhanced by more intensive sharing (e.g. higher capacity from access to more spectrum, greater coverage from ability to operate at higher powers) and any performance degradation incurred by increased interference.

At least one new sharing solution should be tested in the real world for each system 'pair' to compare actual vs. theoretically expected behaviour and against the initial measurement results.

Since these tests will necessarily involve operating outside of existing licence conditions, Ofcom approval to operate will be needed and this should be discussed with Ofcom prior to bid submission. It is envisaged that this will be provided via a 'Spectrum Sandbox', where Ofcom issues necessary authorisations and/or Interface Requirements for the period of the study provided there is agreement between affected organisations.

To ensure that the required authorisations are feasible, bidders are required as a condition of bidding, to discuss their spectrum requirements with Ofcom in advance of submitting their bid to verify feasibility. Arrangements for these pre-bid discussions are as follows:

1. Contact spectrum.roadmap@ofcom.org.uk at Ofcom to arrange a discussion.
2. Provide Ofcom with details of the requested changes and requirements.
3. Provide evidence of this in your response to Technical Question 3
4. Ofcom will provide DSIT with a statement of feasibility for the Spectrum Sandbox if the bidder is successful.

A request to Ofcom for necessary licence conditions and authorisations for the duration of the project, and Ofcom's response to the request, will be required as part of the bid. This should be provided in email copy form as part of your response to Technical Question 3.

In principle any spectrum bands and licence types could be considered for a Spectrum Sandbox, but these might include the [Shared Access Licence](#) bands, [mobile spectrum bands](#), [Shared](#) or [Local Access Licences](#), existing [licence-exempt](#) bands and bands under active consideration such as the [upper 6GHz band](#), or bands used by government users (with the agreement of the relevant government Department) for example. For the latter, this should be discussed and agreed with the relevant government department prior to bid submission. Evidence of this discussion should be provided in email copy form.

WP1 Deliverables

- ⊘ Request to and approval in principle from Ofcom for necessary authorisations to cover the duration of the project in a format and with information to be specified by Ofcom, setting out acceptance from the affected parties and their acceptance of potentially increased interference under those conditions.
- ⊘ Where appropriate, request to and approval from relevant government department for necessary authorisations and agreements to share, to cover the duration of the project.
- ⊘ R&D report detailing the design of the sharing solutions(s) to be tested including rationale for their design and expected performance in a test environment.
- ⊘ Test plan, setting out in detail the systems which will be tested, the conditions under which they will be tested, the spectrum parameters required, and the approach to assessing the performance of the systems.
- ⊘ Test report, setting out the detailed results from the testing, comparing system performance under conventional operation and under more intensive spectrum sharing.
- ⊘ Report and proof of concept demonstration on potential for sharing of usage and interference data for regulatory purposes, setting out the potential benefits, associated challenges, and recommendations for the future operation of such systems. This should include visualisation, such as a map-based representation of the data allowing analysis by location, frequency and time.
- ⊘ Archive of measurement and performance data captured during testing.

Deliverables should be provided both to DSIT as formal deliverables and to Ofcom.

WP2: Assessment of scalability and impact through simulation and modelling

Objectives

The primary objective of WP2 is to assess sharing solutions for a wider range of technical parameters, locations, frequencies, and technologies than would be feasible in the measurements in WP1. WP2 should therefore assess the applicability of the sharing solutions developed in WP1 to a wider range of conditions but may also look to solutions outside of those considered in WP1.

WP2 will assess whether the solutions and technical conditions tested under WP1 could deliver improved spectrum sharing when compared to existing technical parameters and authorisation methodologies and/or existing real-world deployments.

WP2 will also provide insights into potential trade-offs between costs, coverage, capacity and Quality of Experience (QoE) of impacted networks and services and the number of systems that could share the same spectrum.

Applicability of sharing solutions to different deployment scenarios

It is envisaged that WP2 will make extensive use of computer simulations and modelling.

The modelling and simulation work will set up a numerical assessment of a range of sharing systems drawn from the list of examples in the WP1 description, and any identified beyond this list. It should include all of those sharing systems assessed in WP1 in the project, adding others to be proposed. It will assess the performance of those systems as the sharing conditions are varied over a wider range than those in the measurements, for example with respect to spacing between systems or transmit powers.

Simulation and modelling should consider:

- ⊄ In which parts of the UK would the WP1 solutions deliver benefits? e.g., particular geo-types/ population densities.
- ⊄ How do benefits vary as input parameters (see below) are flexed across a wider range than was possible under the practical tests conducted in in WP1? What are the trade-offs between costs, coverage, capacity, QoE, spectrum efficiency and other relevant outcomes?
- ⊄ The extent to which the WP1 sharing solutions could be applied to other frequency bands and technologies? i.e. to what extent are the solutions 'general'.

Assessments should be made relative to what would be possible under Ofcom's existing authorisation methodology and the localised results obtained in WP1 (to understand how nationally representative the WP1 results are).

Information from the Ofcom Wireless Telegraphy Act Register (WTR) can be used to inform the simulation and modelling. Estimates should be made of future network deployment and traffic profiles.

Flexing input parameters and assessing outcomes

Input parameters to be flexed through modelling and simulation could include, but are not limited to:

- Base station or transmitter / receiver height, power and/or directionality

- Separation distance between systems
- Access to wider channel bandwidths
- Traffic profiles on each network
- Indoor and outdoor deployment
- Nature of coordination between networks

WP2 will assess the outcomes arising from this enhanced sharing, which may include benefits such as:

- Reduced network deployment costs to achieve desired coverage and capacity, and how cost savings, or burdens, are distributed between the systems.
- Improved (or degraded) network performance and quality of experience for a given cost.
- Increased efficiency in the use of spectrum

Each set of input parameters could lead to different trade-offs in outcomes such as between costs, coverage, capacity, QoE, and intensity of sharing outcomes. The nature of these trade off should be characterised.

WP2 deliverables

- Simulation and modelling plan setting out the details of the systems and parameters to be evaluated and the modelling assumptions, in both technical and cost terms and how these will be validated using the measurements from WP1.
- Simulation and modelling results, providing the outcomes of the work and the associated findings for the potential for more intensive sharing for the systems considered and under different input parameters.
- Data catalogue, listing all input data and parameters with associated sources and rationale.

WP3: Economic assessment and regulatory consideration

Objectives

WP3 will assess the economic value of sharing solutions to spectrum users, using a case study approach for which the key inputs will be test results on system performance from WP1 and scaling factors from WP2.

Specifically, WP3 will compare the technical solutions tested in WP1 and WP2 against the counterfactual of no intensive spectrum sharing (i.e., the current system of exclusive rights or sharing in some bands and licence-exempt in others).

The purpose of WP3 outputs is to form part of the evidence base for future policy development relating to spectrum sharing.⁴ This may include indicators of scale of net benefits in specific cases, and the range of factors to consider in decision-making. It will suggest options for further consideration, including how sharing arrangements might be implemented in practice using appropriate regulatory tools and mechanisms.

Evidence and assumptions to underpin the different causal links should be included, and any gaps identified. WP3 should specify the cost and benefit related parameters for the WP2 modelling work, such as appraisal periods and discount rates. It should also describe any uncertainty around costs and benefit assumptions, sensitivity analysis findings and any other caveats.⁵

WP3 should also consider specific methods of operationalising sharing, including assessing the relative merits of conventional licensing, licence exemption, database driven authorisation and hybrid approaches, and considering conditions under which specific spectrum sharing approaches might be more optimal or less optimal.

WP3 deliverables

- Specification of scenarios (both factual and counterfactual) to be modelled, and associated cost-benefit parameters and assumptions
- Workbook with cost benefit analysis of scenarios tested in WP1 and WP2 against the counterfactual.
- Discussion of cost-benefit analysis findings.
- Discussion of options to maximise the benefits of shared licensing approaches and potential regulatory tools required to implement these in practice.

Further details on overall project

Work packages, while utilising data from one another wherever possible, can be undertaken simultaneously or in any chronological order that those delivering the work deem to be appropriate, as long as requirements are met in full. For all work packages, all reports and outputs should be provided in MS word and any models or other data presented in Excel wherever possible.

A final report, summarising the findings and conclusions for each of the three work packages should be provided at the end of the project alongside a verbal presentation of findings. Participants should allow 2-3 rounds of DSIT and Ofcom comments on the reports throughout.

Working Arrangements

The appointment offer will be confirmed by Friday 22nd March 2024. Final reports for all work packages, working group meeting and summary presentation including key background facts and analysis will be due before March 2025.

The Supplier is required to appoint a lead Project Manager, responsible for all components of the research. The Project Manager must have sufficient experience, seniority and time allocated to manage the project effectively. There will be one project lead from DSIT to liaise closely with all components of the research.

Throughout the duration of the study there will be input from DSIT and Ofcom requiring open communication between the project team and DSIT/ Ofcom. This may take place in the form of formal or informal discussions, or conversations as part of the project management meetings. DSIT and Ofcom attendance will be coordinated by the DSIT project lead.

The Supplier may be expected to meet with a Steering Group or senior leader at key points during the research. These meetings are expected to take place via video conference but may also take

place at DSIT premises at 100 Parliament Street, London, SW1A 2BQ. Attendance at these meetings is to be included in the overall cost of any Tender Response. The Supplier will update DSIT on the research's progress, flag any emerging issues and risks and updates regarding the research itself and quality assurance (as and when applicable). The format of how this will be presented will be agreed upon contract commencement.

Service levels and performance

DSIT will measure the quality of the Supplier's delivery by:

- Ability to respond to all queries within 2 working days. For example, responding to emails, providing project updates and providing ad-hoc data and project information
- The quality of the Supplier's delivery against achievements of key milestones. Milestones are dates indicative and will be agreed between DSIT and the Supplier during project initiation.
- These key milestones are material to the Contract and on-time delivery is of the essence

Protection of information & security arrangements:

The supplier and their subcontractors will be required to sign (or abide by) a non-disclosure agreement and apply DSIT information security policies to all information they access as part of this work, including ensuring that only duly authorised personnel can access protectively marked information. The supplier and their subcontractors will need to demonstrate the availability of adequate infrastructure and a business continuity plan to deliver the work to a high level of quality at the required time, ensuring the protection of information at all times.

Conflicts of Interest:

If there are any conflicts of interest it must be made clear that there are provisions for mitigating the risk that this may affect the bidder's ability to provide impartial advice. Please see paragraph 32 of the DPS Core Terms for further details of Conflict-of-Interest responsibilities.

Period of Contract:

The contract shall run to the end of March 2025 at the latest, or until the contractor satisfactorily delivers the requirement, as confirmed by DSIT.

Budget:

The estimated budget for this procurement is £4,500,000 however please refer to Document 3, section 5 'Funding and Contract Cap' for more details on bidder contract caps.

Price and payments:

In submitting full tenders, suppliers confirm in writing that the price offered will be held for a minimum of 60 calendar days from the date of submission. Any payment conditions applicable to the prime contractor must also be replicated with sub-contractors.

A breakdown of billable days or hours of work undertaken the previous week must be provided by the supplier promptly each week, along with the relevant invoice, to assist DSIT cost control and payment processes.

DSIT's target is to pay all approved invoices within a maximum period of 10 days.

5. Timetable

5.1. Contractors must demonstrate that they can meet the following provisional timetable for the research:

Event / Milestone	Date and Time
Contract commencement date	Monday 25 th March 2024
Kick-off meeting to agree and finalise approach to the study	Within 5 working days of contract commencement date
Stakeholder communication plan	1 week after contract commencement date
Final Interim Report (WP1, 2 and 3)	No later than 11 months after contract commencement date
Final reports for all work packages, working group meeting and summary presentation including key background facts and analysis	No later than 12 months after contract commencement date

6. KPIs

The supplier will comply with the following KPIs and service levels, which will be monitored regularly and discussed at contract management meetings.

The format/templates used to measure the KPIs are to be agreed with the winning supplier at the kick off meeting.

Key Performance Indicator (KPI)	KPI Target	Measured by / Key indicator	Service level performance measure	Service Level Threshold
Response to briefs: Quick-turnaround briefs: respond within 1 working day with indicative costs and timelines	95%	Confirmation by DSIT Timeline: For quick turnaround brief, within 1	95% within 1 working day	95% within 48 hours

(i.e. omnibus, qual)		working day between DSIT emailing the request to the supplier and DSIT receiving an appropriately completed proposal in the agreed format/template.		
All other briefs: respond within 5 working days with a full proposal.	95%	<p>a. Acknowledgement within 1 day</p> <p>b. 5 working days between DSIT emailing the request to the supplier and DSIT receiving an appropriately completed proposal in the agreed format/template.</p>	<p>a. 99% acknowledged within 1 day,</p> <p>b. 95% completed proposal within 5 days</p>	<p>a. 99%</p> <p>b. 7 days</p>
Attendance by relevant project lead(s) only at weekly status calls	100%	Confirmation by DSIT / attendance at all weekly meetings. If the relevant project lead is unavailable the supplier should let DSIT know at least one working day before the meeting, and make sure that	100% attendance per month	80% attendance per month

		a representative from the supplier is at the meeting and can cover the content.		
Weekly maintenance of a status tracker, including project timings, costs & spend against contract, leads etc	90%	Confirmation by DSIT / tracker updated weekly	90%	75%
Issue the status tracker 1 working day in advance of the weekly status call to DSIT	90%	Confirmation by DSIT / supplier to email DSIT the status tracker and agenda for regular weekly meeting, 1 working day ahead of the meeting.	90%	75%
Respond to finance queries within half a working day, and suggested solution/next steps within one working day.	90%	<p>a. Confirmation by DSIT / acknowledge receipt of query from DSIT within half a working day of receiving it.</p> <p>b. Suggest solution/next steps to resolve the query within one working day of receiving query from DSIT. Either by phone and</p>	<p>A. -90% acknowledge query within half a working day.</p> <p>b.-90% respond with solution/suggested next steps within 1 working day.</p>	<p>A. 75% acknowledge query within half a working day.</p> <p>b. 75% respond with solution/suggested next steps within 1 working day.</p>

		email, or just email (depending on the complexity of the query).		
Respond to or acknowledge receipt of queries within half a working day, and suggested solution/next steps within one working day.	90%	<p>a. Confirmation by DSIT / acknowledge receipt of query from DSIT within half a working day of receiving it.</p> <p>b. Suggest solution/next steps to resolve the query within one working day of receiving query from DSIT. Either by phone and email, or just email (depending on the complexity of the query).</p>	<p>A. 90% acknowledge query within half a working day.</p> <p>b. 90% respond with solution within 1 working day.</p>	<p>a. - 75% acknowledge query within half a working day.</p> <p>b. 75% respond with solution within 1 working day.</p>
<p>Consideration of innovative research methodologies & outputs within budget.</p> <p>Supplier to host an innovation session quarterly for the DSIT team where they (supplier)</p>	100%	Confirmation by DSIT / Ensure delivery of 4 innovation sessions per year.	100% of innovation sessions delivered	75% of innovation sessions delivered

present a range of enhanced / innovative research methods that they could add to the toolkit for the remainder of the contract and use on relevant research projects.				
Delivery of research findings by agreed deadlines	95%	Confirmation by DSIT	95% of deadlines met	90% of deadlines met

CCS CORE TERMS (DPS VERSION) V1.0.3

RM6126 CORE TERMS



Crown
Commercial
Service

Core Terms - DPS

1. Definitions used in the contract

Interpret this Contract using Joint Schedule 1 (Definitions).

2. How the contract works

2.1 The Supplier is eligible for the award of Order Contracts during the DPS Contract Period.

2.2 CCS does not guarantee the Supplier any exclusivity, quantity or value of work under the DPS Contract.

2.3 CCS has paid one penny to the Supplier legally to form the DPS Contract. The Supplier acknowledges this payment.

2.4 If the Buyer decides to buy Deliverables under the DPS Contract it must use DPS Schedule 7 (Order Procedure) and must state its requirements using DPS Schedule 6 (Order Form Template and Order Schedules). If allowed by the Regulations, the Buyer can:

- (a) make changes to DPS Schedule 6 (Order Form Template and Order Schedules);
- (b) create new Order Schedules;
- (c) exclude optional template Order Schedules; and/or
- (d) use Special Terms in the Order Form to add or change terms.

2.5 Each Order Contract:

- (a) is a separate Contract from the DPS Contract;
- (b) is between a Supplier and a Buyer;
- (c) includes Core Terms, Schedules and any other changes or items in the completed Order Form; and (d) survives the termination of the DPS Contract.

2.6 Where the Supplier is approached by any Other Contracting Authority requesting Deliverables or substantially similar goods or services, the Supplier must tell them about this DPS Contract before accepting their order.

2.7 The Supplier acknowledges it has all the information required to perform its obligations under each Contract before entering into a Contract. When information is provided by a Relevant Authority no warranty of its accuracy is given to the Supplier.

2.8 The Supplier will not be excused from any obligation, or be entitled to additional Costs or Charges because it failed to either:

- (a) verify the accuracy of the Due Diligence Information; or
- (b) properly perform its own adequate checks.

2.9 CCS and the Buyer will not be liable for errors, omissions or misrepresentation of any information.

2.10 The Supplier warrants and represents that all statements made and documents submitted as part of the procurement of Deliverables are and remain true and accurate.

2.11 An Order Contract can only be created using the electronic procedures described in the FTS Notice as required by the Regulations.

2.12 A Supplier can only receive Orders under the DPS Contract while it meets the basic access requirements for the DPS stated in the FTS Notice. CCS can audit whether a Supplier meets the basic access requirements at any point during the DPS Contract Period.

3. What needs to be delivered

3.1 All deliverables

3.1.1 The Supplier must provide Deliverables:

- (a) that comply with the Specification, the DPS Application and, in relation to an Order Contract, the Order Tender (if there is one);
- (b) to a professional standard;
- (c) using reasonable skill and care;
- (d) using Good Industry Practice;
- (e) using its own policies, processes and internal quality control measures as long as they do not conflict with the Contract; (f) on the dates agreed; and (g) that comply with Law.

3.1.2 The Supplier must provide Deliverables with a warranty of at least 90 days from Delivery against all obvious defects.

3.2 Goods clauses

3.2.1 All Goods delivered must be new, or as new if recycled, unused and of recent origin.

3.2.2 All manufacturer warranties covering the Goods must be assignable to the Buyer on request and for free.

3.2.3 The Supplier transfers ownership of the Goods on Delivery or payment for those Goods, whichever is earlier.

3.2.4 Risk in the Goods transfers to the Buyer on Delivery of the Goods, but remains with the Supplier if the Buyer notices damage following Delivery and lets the Supplier know within 3 Working Days of Delivery.

3.2.5 The Supplier warrants that it has full and unrestricted ownership of the Goods at the time of transfer of ownership.

3.2.6 The Supplier must deliver the Goods on the date and to the specified location during the Buyer's working hours.

3.2.7 The Supplier must provide sufficient packaging for the Goods to reach the point of Delivery safely and undamaged.

3.2.8 All deliveries must have a delivery note attached that specifies the order number, type and quantity of Goods.

3.2.9 The Supplier must provide all tools, information and instructions the Buyer needs to make use of the Goods.

3.2.10 The Supplier must indemnify the Buyer against the costs of any Recall of the Goods and give notice of actual or anticipated action about the Recall of the Goods.

3.2.11 The Buyer can cancel any order or part order of Goods which has not been Delivered. If the Buyer gives less than 14 days notice then it will pay the Supplier's reasonable and proven costs already incurred on the cancelled order as long as the Supplier takes all reasonable steps to minimise these costs.

3.2.12 The Supplier must at its own cost repair, replace, refund or substitute (at the Buyer's option and request) any Goods that the Buyer rejects because they do not conform with Clause 3. If the Supplier does not do this it will pay the Buyer's costs including repair or re-supply by a third party.

3.3 Services clauses

3.3.1 Late Delivery of the Services will be a Default of an Order Contract.

3.3.2 The Supplier must co-operate with the Buyer and third party suppliers on all aspects connected with the Delivery of the Services and ensure that Supplier Staff comply with any reasonable instructions.

3.3.3 The Supplier must at its own risk and expense provide all Supplier Equipment required to Deliver the Services.

3.3.4 The Supplier must allocate sufficient resources and appropriate expertise to each Contract.

3.3.5 The Supplier must take all reasonable care to ensure performance does not disrupt the Buyer's operations, employees or other contractors.

3.3.6 The Supplier must ensure all Services, and anything used to Deliver the Services, are of good quality and free from defects.

3.3.7 The Buyer is entitled to withhold payment for partially or undelivered Services, but doing so does not stop it from using its other rights under the Contract.

4. Pricing and payments

4.1 In exchange for the Deliverables, the Supplier must invoice the Buyer for the Charges in the Order Form.

4.2 CCS must invoice the Supplier for the Management Levy and the Supplier must pay it using the process in DPS Schedule 5 (Management Levy and Information).

4.3 All Charges and the Management Levy:

- (a) exclude VAT, which is payable on provision of a valid VAT invoice; and
- (b) include all costs connected with the Supply of Deliverables.

4.4 The Buyer must pay the Supplier the Charges within 30 days of receipt by the Buyer of a valid, undisputed invoice, in cleared funds using the payment method and details stated in the Order Form.

4.5 A Supplier invoice is only valid if it:

- (a) includes all appropriate references including the Contract reference number and other details reasonably requested by the Buyer;
- (b) includes a detailed breakdown of Delivered Deliverables and Milestone(s) (if any); and
- (c) does not include any Management Levy (the Supplier must not charge the Buyer in any way for the Management Levy).

4.6 The Buyer must accept and process for payment an undisputed Electronic Invoice received from the Supplier.

4.7 The Buyer may retain or set-off payment of any amount owed to it by the Supplier if notice and reasons are provided.

4.8 The Supplier must ensure that all Subcontractors are paid, in full, within 30 days of receipt of a valid, undisputed invoice. If this does not happen, CCS or the Buyer can publish the details of the late payment or non-payment.

4.9 If CCS or the Buyer can get more favourable commercial terms for the supply at cost of any materials, goods or services used by the Supplier to provide the Deliverables, then CCS or the Buyer may require the Supplier to replace its existing commercial terms with the more favourable terms offered for the relevant items.

4.10 If CCS or the Buyer uses Clause 4.9 then the DPS Pricing (and where applicable, the Charges) must be reduced by an agreed amount by using the Variation Procedure.

4.11 The Supplier has no right of set-off, counterclaim, discount or abatement unless they are ordered to do so by a court.

5 The buyer's obligations to the supplier

5.1 If Supplier Non-Performance arises from an Authority Cause:

- (a) neither CCS or the Buyer can terminate a Contract under Clause 10.4.1;
- (b) the Supplier is entitled to reasonable and proven additional expenses and to relief from liability and Deduction under this Contract;
- (c) the Supplier is entitled to additional time needed to make the Delivery; and (d) the Supplier cannot suspend the ongoing supply of Deliverables.

5.2 Clause 5.1 only applies if the Supplier:

- (a) gives notice to the Party responsible for the Authority Cause within 10 Working Days of becoming aware;
- (b) demonstrates that the Supplier Non-Performance would not have occurred but for the Authority Cause; and
- (c) mitigated the impact of the Authority Cause.

6 Record keeping and reporting

6.1 The Supplier must attend Progress Meetings with the Buyer and provide Progress Reports when specified in the Order Form.

6.2 The Supplier must keep and maintain full and accurate records and accounts on everything to do with the Contract:

- (a) during the Contract Period;
- (b) for 7 years after the End Date; and (c) in accordance with UK GDPR, including but not limited to the records and accounts stated in the definition of Audit in Joint Schedule 1.

6.3 The Relevant Authority or an Auditor can Audit the Supplier.

6.4 During an Audit, the Supplier must:

- (a) allow the Relevant Authority or any Auditor access to their premises to verify all contract accounts and records of everything to do with the Contract and provide copies for an Audit; and
- (b) provide information to the Relevant Authority or to the Auditor and reasonable co-operation at their request.

6.5 Where the Audit of the Supplier is carried out by an Auditor, the Auditor shall be entitled to share any information obtained during the Audit with the Relevant Authority.

6.6 If the Supplier is not providing any of the Deliverables, or is unable to provide them, it must immediately:

- (a) tell the Relevant Authority and give reasons;
- (b) propose corrective action; and
- (c) provide a deadline for completing the corrective action.

6.7 The Supplier must provide CCS with a Self Audit Certificate supported by an audit report at the end of each Contract Year. The report must contain:

- (a) the methodology of the review;
- (b) the sampling techniques applied; (c) details of any issues; and (d) any remedial action taken.

6.8 The Self Audit Certificate must be completed and signed by an auditor or senior member of the Supplier's management team that is qualified in either a relevant audit or financial discipline.

7 Supplier staff

7.1 The Supplier Staff involved in the performance of each Contract must:

- (a) be appropriately trained and qualified;
- (b) be vetted using Good Industry Practice and the Security Policy; and
- (c) comply with all conduct requirements when on the Buyer's Premises.

7.2 Where a Buyer decides one of the Supplier's Staff is not suitable to work on a contract, the Supplier must replace them with a suitably qualified alternative.

7.3 If requested, the Supplier must replace any person whose acts or omissions have caused the Supplier to breach Clause 27.

7.4 The Supplier must provide a list of Supplier Staff needing to access the Buyer's Premises and say why access is required.

7.5 The Supplier indemnifies CCS and the Buyer against all claims brought by any person employed by the Supplier caused by an act or omission of the Supplier or any Supplier Staff.

8 Rights and protection

8.1 The Supplier warrants and represents that:

- (a) it has full capacity and authority to enter into and to perform each Contract;
- (b) each Contract is executed by its authorised representative;
- (c) it is a legally valid and existing organisation incorporated in the place it was formed;
- (d) there are no known legal or regulatory actions or investigations before any court, administrative body or arbitration tribunal pending or threatened against it or its Affiliates that might affect its ability to perform each Contract;

- (e) it maintains all necessary rights, authorisations, licences and consents to perform its obligations under each Contract;
- (f) it does not have any contractual obligations which are likely to have a material adverse effect on its ability to perform each Contract;
- (g) it is not impacted by an Insolvency Event; and (h) it will comply with each Order Contract.

8.2 The warranties and representations in Clauses 2.10 and 8.1 are repeated each time the Supplier provides Deliverables under the Contract.

8.3 The Supplier indemnifies both CCS and every Buyer against each of the following:

- (a) wilful misconduct of the Supplier, Subcontractor and Supplier Staff that impacts the Contract; and (b) non-payment by the Supplier of any Tax or National Insurance.

8.4 All claims indemnified under this Contract must use Clause 26.

8.5 The description of any provision of this Contract as a warranty does not prevent CCS or a Buyer from exercising any termination right that it may have for breach of that clause by the Supplier.

8.6 If the Supplier becomes aware of a representation or warranty that becomes untrue or misleading, it must immediately notify CCS and every Buyer.

8.7 All third party warranties and indemnities covering the Deliverables must be assigned for the Buyer's benefit by the Supplier.

9 Intellectual Property Rights (IPRs)

9.1 Each Party keeps ownership of its own Existing IPRs. The Supplier gives the Buyer a non-exclusive, perpetual, royalty-free, irrevocable, transferable worldwide licence to use, change and sub-license the Supplier's Existing IPR to enable it to both:

- (a) receive and use the Deliverables; and
- (b) make use of the deliverables provided by a Replacement Supplier.

The Buyer gives the Supplier a licence to use the Buyer's Existing IPR for the purpose of fulfilling its obligations under this Order Contract during the Contract Period.

9.2 Any IPR in any Deliverables (including reports and measurement data) provided or made available by the Supplier to the Buyer under this Order Contract shall be owned by the Buyer upon its creation ("**Deliverables IPR**"). For the avoidance of doubt, the Buyer shall have the right to use and distribute any Deliverables without any restriction (including to publish as open data). The Buyer gives the Supplier a licence to use any Deliverables IPR for the purpose of fulfilling its obligations under this Order Contract during the Contract Period.

9.3 Subject to Clause 9.2, any New IPR that is not Deliverables IPR created by or on behalf of the Supplier under or in connection with this Order Contract (including IPR in

any new techniques) is owned by the Supplier (which shall be deemed to be the Supplier's Existing IPR upon creation and subject to Clause 9.1).

- 9.4 Where a Party acquires ownership of IPRs incorrectly under this Contract it must do everything reasonably necessary to complete a transfer assigning them in writing to the other Party on request and at its own cost.
- 9.5 Neither Party has the right to use the other Party's IPRs, including any use of the other Party's names, logos or trademarks, except as provided in Clause 9 or otherwise agreed in writing.
- 9.6 If there is an IPR Claim, the Supplier indemnifies CCS and each Buyer against all losses, damages, costs or expenses (including professional fees and fines) incurred as a result.
- 9.7 If an IPR Claim is made or anticipated the Supplier must at its own expense and the Buyer's sole option, either:
- (a) obtain for CCS and the Buyer the rights in Clause 9.1 and 9.3 without infringing any third party IPR; or
 - (b) replace or modify the relevant item with substitutes that do not infringe IPR without adversely affecting the functionality or performance of the Deliverables.

9.8 In spite of any other provisions of a Contract and for the avoidance of doubt, award of a Contract by the Buyer and placement of any contract task under it does not constitute an authorisation by the Crown under Sections 55 and 56 of the Patents Act 1977 or Section 12 of the Registered Designs Act 1949. The Supplier acknowledges that any authorisation by the Buyer under its statutory powers must be expressly provided in writing, with reference to the acts authorised and the specific IPR involved.

10 Ending the contract or any subcontract

10.2 Contract Period

10.1.1 The Contract takes effect on the Start Date and ends on the End Date or earlier if required by Law.

10.1.2 The Relevant Authority can extend the Contract for the Extension Period by giving the Supplier no less than 3 Months' written notice before the Contract expires.

10.3 Ending the contract without a reason

10.2.1 CCS has the right to terminate the DPS Contract at any time without reason by giving the Supplier at least 30 days' notice.

10.2.2 Each Buyer has the right to terminate their Order Contract at any time without reason by giving the Supplier not less than 90 days' written notice.

10.4 Rectification plan process

10.3.1 If there is a Default, the Relevant Authority may, without limiting its other rights, request that the Supplier provide a Rectification Plan.

10.3.2 When the Relevant Authority receives a requested Rectification Plan it can either:

- (a) reject the Rectification Plan or revised Rectification Plan, giving reasons; or
- (b) accept the Rectification Plan or revised Rectification Plan (without limiting its rights) and the Supplier must immediately start work on the actions in the Rectification Plan at its own cost, unless agreed otherwise by the Parties.

10.3.3 Where the Rectification Plan or revised Rectification Plan is rejected, the Relevant Authority:

- (a) must give reasonable grounds for its decision; and
- (b) may request that the Supplier provides a revised Rectification Plan within 5 Working Days.

10.3.4 If the Relevant Authority rejects any Rectification Plan, including any revised Rectification Plan, the Relevant Authority does not have to request a revised Rectification Plan before exercising its right to terminate its Contract under Clause 10.4.3(a).

10.5 When CCS or the buyer can end a contract

10.4.1 If any of the following events happen, the Relevant Authority has the right to immediately terminate its Contract by issuing a Termination Notice to the Supplier:

- (a) there is a Supplier Insolvency Event;
- (b) there is a Default that is not corrected in line with an accepted Rectification Plan;
- (c) the Supplier does not provide a Rectification Plan within 10 days of the request;
- (d) there is any material Default of the Contract;
- (e) there is any material Default of any Joint Controller Agreement relating to any Contract;
- (f) there is a Default of Clauses 2.10, 9, 14, 15, 27, 32 or DPS Schedule 9 (Cyber Essentials) (where applicable) relating to any Contract;
- (g) there is a consistent repeated failure to meet the Performance Indicators in DPS Schedule 4 (DPS Management);
- (h) there is a Change of Control of the Supplier which is not pre-approved by the Relevant Authority in writing;

- (i) if the Relevant Authority discovers that the Supplier was in one of the situations in 57 (1) or 57(2) of the Regulations at the time the Contract was awarded; or
- (j) the Supplier or its Affiliates embarrass or bring CCS or the Buyer into disrepute or diminish the public trust in them.

10.4.2 CCS may terminate the DPS Contract if a Buyer terminates an Order Contract for any of the reasons listed in Clause 10.4.1.

10.4.3 If any of the following non-fault based events happen, the Relevant Authority has the right to immediately terminate its Contract by issuing a Termination Notice to the Supplier:

- (a) the Relevant Authority rejects a Rectification Plan;
- (b) there is a Variation which cannot be agreed using Clause 24 (Changing the contract) or resolved using Clause 34 (Resolving disputes);
- (c) if there is a declaration of ineffectiveness in respect of any Variation; or (d) any of the events in 73 (1) (a) or (c) of the Regulations happen.

10.6 When the supplier can end the contract

The Supplier can issue a Reminder Notice if the Buyer does not pay an undisputed invoice on time. The Supplier can terminate an Order Contract if the Buyer fails to pay an undisputed invoiced sum due and worth over 10% of the annual Contract Value within 30 days of the date of the Reminder Notice.

10.7 What happens if the contract ends

10.6.1 Where a Party terminates a Contract under any of Clauses 10.2.1, 10.2.2, 10.4.1, 10.4.2, 10.4.3, 10.5 or 20.2 or a Contract expires all of the following apply:

- (a) The Buyer's payment obligations under the terminated Contract stop immediately.
- (b) Accumulated rights of the Parties are not affected.
- (c) The Supplier must promptly repay to the Buyer any and all Charges the Buyer has paid in advance in respect of Deliverables not provided by the Supplier as at the End Date.
- (d) The Supplier must promptly delete or return the Government Data except where required to retain copies by Law.
- (e) The Supplier must promptly return any of CCS or the Buyer's property provided under the terminated Contract.
- (f) The Supplier must, at no cost to CCS or the Buyer, co-operate fully in the handover and reprocurement (including to a Replacement Supplier).

10.6.2 In addition to the consequences of termination listed in Clause 10.6.1, where the Relevant Authority terminates a Contract under Clause 10.4.1 the Supplier is also responsible for the Relevant Authority's reasonable costs of procuring Replacement Deliverables for the rest of the Contract Period.

10.6.3 In addition to the consequences of termination listed in Clause 10.6.1, if either the Relevant Authority terminates a Contract under Clause 10.2.1 or 10.2.2 or a Supplier terminates an Order Contract under Clause 10.5:

- (a) the Buyer must promptly pay all outstanding Charges incurred to the Supplier; and
- (b) the Buyer must pay the Supplier reasonable committed and unavoidable Losses as long as the Supplier provides a fully itemised and costed schedule with evidence - the maximum value of this payment is limited to the total sum payable to the Supplier if the Contract had not been terminated.

10.6.4 In addition to the consequences of termination listed in Clause 10.6.1, where a Party terminates under Clause 20.2 each Party must cover its own Losses.

10.6.5 The following Clauses survive the termination or expiry of each Contract: 3.2.10, 4.2, 6, 7.5, 9, 11, 12.2, 14, 15, 16, 17, 18, 31.3, 34, 35 and any Clauses and Schedules which are expressly or by implication intended to continue.

10.8 Partially ending and suspending the contract

10.7.1 Where CCS has the right to terminate the DPS Contract it can suspend the Supplier's ability to accept Orders (for any period) and the Supplier cannot enter into any new Order Contracts during this period. If this happens, the Supplier must still meet its obligations under any existing Order Contracts that have already been signed.

10.7.2 Where CCS has the right to terminate a DPS Contract it is entitled to terminate all or part of it.

10.7.3 Where the Buyer has the right to terminate an Order Contract it can terminate or suspend (for any period), all or part of it. If the Buyer suspends a Contract it can provide the Deliverables itself or buy them from a third party.

10.7.4 The Relevant Authority can only partially terminate or suspend a Contract if the remaining parts of that Contract can still be used to effectively deliver the intended purpose.

10.7.5 The Parties must agree any necessary Variation required by Clause 10.7 using the Variation Procedure, but the Supplier may not either:

- (a) reject the Variation; or
- (b) increase the Charges, except where the right to partial termination is under Clause 10.2.

10.7.6 The Buyer can still use other rights available, or subsequently available to it if it acts on its rights under Clause 10.7.

10.9 When subcontracts can be ended

At the Buyer's request, the Supplier must terminate any Subcontracts in any of the following events:

- (a) there is a Change of Control of a Subcontractor which is not pre-approved by the Relevant Authority in writing;
- (b) the acts or omissions of the Subcontractor have caused or materially contributed to a right of termination under Clause 10.4; or
- (c) a Subcontractor or its Affiliates embarrasses or brings into disrepute or diminishes the public trust in the Relevant Authority.

11 How much you can be held responsible for

11.1 Each Party's total aggregate liability in each Contract Year under this DPS Contract (whether in tort, contract or otherwise) is no more than £1,000,000.

11.2 Each Party's total aggregate liability in each Contract Year under each Order Contract (whether in tort, contract or otherwise) is no more than one hundred and twenty five percent (125%) of the Estimated Yearly Charges unless specified in the Order Form.

11.3 No Party is liable to the other for:

- (a) any indirect Losses; or
- (b) Loss of profits, turnover, savings, business opportunities or damage to goodwill (in each case whether direct or indirect).

11.4 In spite of Clause 11.1 and 11.2, neither Party limits or excludes any of the following:

- (a) its liability for death or personal injury caused by its negligence, or that of its employees, agents or Subcontractors;
- (b) its liability for bribery or fraud or fraudulent misrepresentation by it or its employees;
- (c) any liability that cannot be excluded or limited by Law;
- (d) its obligation to pay the required Management Levy or Default Management Levy.

11.5 In spite of Clauses 11.1 and 11.2, the Supplier does not limit or exclude its liability for any indemnity given under Clauses 7.5, 8.3(b), 9.5, 31.3 or Order Schedule 2 (Staff Transfer) of a Contract.

11.6 In spite of Clauses 11.1, 11.2 but subject to Clauses 11.3 and 11.4, the Supplier's aggregate liability in each and any Contract Year under each Contract under Clause 14.8 shall in no event exceed the Data Protection Liability Cap.

11.7 Each Party must use all reasonable endeavours to mitigate any Loss or damage which it suffers under or in connection with each Contract, including any indemnities.

11.8 When calculating the Supplier's liability under Clause 11.1 or 11.2 the following items will not be taken into consideration:

- (a) Deductions; and
- (b) any items specified in Clauses 11.5 or 11.6.

11.9 If more than one Supplier is party to a Contract, each Supplier Party is jointly and severally liable for their obligations under that Contract.

12 Obeying the law

12.1 The Supplier must use reasonable endeavours to comply with the provisions of Joint Schedule 5 (Corporate Social Responsibility).

12.2 To the extent that it arises as a result of a Default by the Supplier, the Supplier indemnifies the Relevant Authority against any fine or penalty incurred by the Relevant Authority pursuant to Law and any costs incurred by the Relevant Authority in defending any proceedings which result in such fine or penalty.

12.3 The Supplier must appoint a Compliance Officer who must be responsible for ensuring that the Supplier complies with Law, Clause 12.1 and Clauses 27 to 32.

13 Insurance

The Supplier must, at its own cost, obtain and maintain the Required Insurances in Joint Schedule 3 (Insurance Requirements) and any Additional Insurances in the Order Form.

14 Data protection

14.1 The Supplier must process Personal Data and ensure that Supplier Staff process Personal Data only in accordance with Joint Schedule 11 (Processing Data).

14.2 The Supplier must not remove any ownership or security notices in or relating to the Government Data.

14.3 The Supplier must make accessible back-ups of all Government Data, stored in an agreed off-site location and send the Buyer copies every 6 Months.

14.4 The Supplier must ensure that any Supplier system holding any Government Data, including back-up data, is a secure system that complies with the Security Policy and any applicable Security Management Plan.

14.5 If at any time the Supplier suspects or has reason to believe that the Government Data provided under a Contract is corrupted, lost or sufficiently degraded, then the Supplier must notify the Relevant Authority and immediately suggest remedial action.

14.6 If the Government Data is corrupted, lost or sufficiently degraded so as to be unusable the Relevant Authority may either or both:

- (a) tell the Supplier to restore or get restored Government Data as soon as practical but no later than 5 Working Days from the date that the Relevant Authority receives notice, or the Supplier finds out about the issue, whichever is earlier; and/or
- (b) restore the Government Data itself or using a third party.

14.7 The Supplier must pay each Party's reasonable costs of complying with Clause 14.6 unless CCS or the Buyer is at fault.

14.8 The Supplier:

- (a) must provide the Relevant Authority with all Government Data in an agreed open format within 10 Working Days of a written request;
- (b) must have documented processes to guarantee prompt availability of Government Data if the Supplier stops trading;
- (c) must securely destroy all Storage Media that has held Government Data at the end of life of that media using Good Industry Practice;
- (d) securely erase all Government Data and any copies it holds when asked to do so by CCS or the Buyer unless required by Law to retain it; and
- (e) indemnifies CCS and each Buyer against any and all Losses incurred if the Supplier breaches Clause 14 and any Data Protection Legislation.

15 What you must keep confidential

15.1 Each Party must:

- (a) keep all Confidential Information it receives confidential and secure;
- (b) except as expressly set out in the Contract at Clauses 15.2 to 15.4 or elsewhere in the Contract, not disclose, use or exploit the Disclosing Party's Confidential Information without the Disclosing Party's prior written consent; and
- (c) immediately notify the Disclosing Party if it suspects unauthorised access, copying, use or disclosure of the Confidential Information.

15.2 In spite of Clause 15.1, a Party may disclose Confidential Information which it receives from the Disclosing Party in any of the following instances:

- (a) where disclosure is required by applicable Law or by a court with the relevant jurisdiction if, to the extent not prohibited by Law, the Recipient Party notifies the Disclosing Party of the full circumstances, the affected Confidential Information and extent of the disclosure;
- (b) if the Recipient Party already had the information without obligation of confidentiality before it was disclosed by the Disclosing Party;

- (c) if the information was given to it by a third party without obligation of confidentiality;
- (d) if the information was in the public domain at the time of the disclosure;
- (e) if the information was independently developed without access to the Disclosing Party's Confidential Information;
- (f) on a confidential basis, to its auditors;
- (g) on a confidential basis, to its professional advisers on a need-to-know basis; or
- (h) to the Serious Fraud Office where the Recipient Party has reasonable grounds to believe that the Disclosing Party is involved in activity that may be a criminal offence under the Bribery Act 2010.

15.3 In spite of Clause 15.1, the Supplier may disclose Confidential Information on a confidential basis to Supplier Staff on a need-to-know basis to allow the Supplier to meet its obligations under the Contract. The Supplier Staff must enter into a direct confidentiality agreement with the Relevant Authority at its request.

15.4 In spite of Clause 15.1, CCS or the Buyer may disclose Confidential Information in any of the following cases:

- (a) on a confidential basis to the employees, agents, consultants and contractors of CCS or the Buyer;
- (b) on a confidential basis to any other Central Government Body, any successor body to a Central Government Body or any company that CCS or the Buyer transfers or proposes to transfer all or any part of its business to;
- (c) if CCS or the Buyer (acting reasonably) considers disclosure necessary or appropriate to carry out its public functions;
- (d) where requested by Parliament; or (e) under Clauses 4.7 and 16.

15.5 For the purposes of Clauses 15.2 to 15.4 references to disclosure on a confidential basis means disclosure under a confidentiality agreement or arrangement including terms as strict as those required in Clause 15.

15.6 Transparency Information is not Confidential Information.

15.7 The Supplier must not make any press announcement or publicise the Contracts or any part of them in any way, without the prior written consent of the Relevant Authority and must take all reasonable steps to ensure that Supplier Staff do not either.

16 When you can share information

16.1 The Supplier must tell the Relevant Authority within 48 hours if it receives a Request For Information.

16.2 Within five (5) Working Days of the Buyer's request the Supplier must give CCS and each Buyer full cooperation and information needed so the Buyer can:

- (a) publish the Transparency Information;
- (b) comply with any Freedom of Information Act (FOIA) request; and/or (c) comply with any Environmental Information Regulations (EIR) request.

16.3 The Relevant Authority may talk to the Supplier to help it decide whether to publish information under Clause 16. However, the extent, content and format of the disclosure is the Relevant Authority's decision in its absolute discretion.

17 Invalid parts of the contract

If any part of a Contract is prohibited by Law or judged by a court to be unlawful, void or unenforceable, it must be read as if it was removed from that Contract as much as required and rendered ineffective as far as possible without affecting the rest of the Contract, whether it is valid or enforceable.

18 No other terms apply

The provisions incorporated into each Contract are the entire agreement between the Parties. The Contract replaces all previous statements, agreements and any course of dealings made between the Parties, whether written or oral, in relation to its subject matter. No other provisions apply.

19 Other people's rights in a contract

No third parties may use the Contracts (Rights of Third Parties) Act 1999 (CRTPA) to enforce any term of the Contract unless stated (referring to CRTPA) in the Contract. This does not affect third party rights and remedies that exist independently from CRTPA.

20 Circumstances beyond your control

20.1 Any Party affected by a Force Majeure Event is excused from performing its obligations under a Contract while the inability to perform continues, if it both:

- (a) provides a Force Majeure Notice to the other Party; and
- (b) uses all reasonable measures practical to reduce the impact of the Force Majeure Event.

20.2 Either Party can partially or fully terminate the affected Contract if the provision of the Deliverables is materially affected by a Force Majeure Event which lasts for 90 days continuously.

21 Relationships created by the contract

No Contract creates a partnership, joint venture or employment relationship. The Supplier must represent themselves accordingly and ensure others do so.

22 Giving up contract rights

A partial or full waiver or relaxation of the terms of a Contract is only valid if it is stated to be a waiver in writing to the other Party.

23 Transferring responsibilities

23.1 The Supplier cannot assign, novate or transfer a Contract or any part of a Contract without the Relevant Authority's written consent.

23.2 The Relevant Authority can assign, novate or transfer its Contract or any part of it to any Central Government Body, public or private sector body which performs the functions of the Relevant Authority.

23.3 When CCS or the Buyer uses its rights under Clause 23.2 the Supplier must enter into a novation agreement in the form that CCS or the Buyer specifies.

23.4 The Supplier can terminate a Contract novated under Clause 23.2 to a private sector body that is experiencing an Insolvency Event.

23.5 The Supplier remains responsible for all acts and omissions of the Supplier Staff as if they were its own.

23.6 If CCS or the Buyer asks the Supplier for details about Subcontractors, the Supplier must provide details of Subcontractors at all levels of the supply chain including:

- (a) their name;
- (b) the scope of their appointment; and
- (c) the duration of their appointment.

24 Changing the contract

24.1 Either Party can request a Variation which is only effective if agreed in writing and signed by both Parties.

24.2 The Supplier must provide an Impact Assessment either:

- (a) with the Variation Form, where the Supplier requests the Variation; or
- (b) within the time limits included in a Variation Form requested by CCS or the Buyer.

24.3 If the Variation cannot be agreed or resolved by the Parties, CCS or the Buyer can either:

- (a) agree that the Contract continues without the Variation; or

- (b) terminate the affected Contract, unless in the case of an Order Contract, the Supplier has already provided part or all of the provision of the Deliverables, or where the Supplier can show evidence of substantial work being carried out to provide them; or
- (c) refer the Dispute to be resolved using Clause 34 (Resolving Disputes).

24.4 CCS and the Buyer are not required to accept a Variation request made by the Supplier.

24.5 If there is a General Change in Law, the Supplier must bear the risk of the change and is not entitled to ask for an increase to the DPS Pricing or the Charges.

24.6 If there is a Specific Change in Law or one is likely to happen during the Contract Period the Supplier must give CCS and the Buyer notice of the likely effects of the changes as soon as reasonably practical. They must also say if they think any Variation is needed either to the Deliverables, DPS Pricing or a Contract and provide evidence:

- (a) that the Supplier has kept costs as low as possible, including in Subcontractor costs; and
- (b) of how it has affected the Supplier's costs.

24.7 Any change in the DPS Pricing or relief from the Supplier's obligations because of a Specific Change in Law must be implemented using Clauses 24.1 to 24.4.

24.8 For 101(5) of the Regulations, if the Court declares any Variation ineffective, the Parties agree that their mutual rights and obligations will be regulated by the terms of the Contract as they existed immediately prior to that Variation and as if the Parties had never entered into that Variation.

25 How to communicate about the contract

25.1 All notices under the Contract must be in writing and are considered effective on the Working Day of delivery as long as they are delivered before 5:00pm on a Working Day. Otherwise the notice is effective on the next Working Day. An email is effective at 9:00am on the first Working Day after sending unless an error message is received.

25.2 Notices to CCS must be sent to the CCS Authorised Representative's address or email address indicated on the Platform.

25.3 Notices to the Buyer must be sent to the Buyer Authorised Representative's address or email address in the Order Form.

25.4 This Clause does not apply to the service of legal proceedings or any documents in any legal action, arbitration or dispute resolution.

26 Dealing with claims

26.1 If a Beneficiary is notified of a Claim then it must notify the Indemnifier as soon as reasonably practical and no later than 10 Working Days.

26.2 At the Indemnifier's cost the Beneficiary must both:

- (a) allow the Indemnifier to conduct all negotiations and proceedings to do with a Claim; and
- (b) give the Indemnifier reasonable assistance with the claim if requested.

26.3 The Beneficiary must not make admissions about the Claim without the prior written consent of the Indemnifier which can not be unreasonably withheld or delayed.

26.4 The Indemnifier must consider and defend the Claim diligently using competent legal advisors and in a way that does not damage the Beneficiary's reputation.

26.5 The Indemnifier must not settle or compromise any Claim without the Beneficiary's prior written consent which it must not unreasonably withhold or delay.

26.6 Each Beneficiary must take all reasonable steps to minimise and mitigate any losses that it suffers because of the Claim.

26.7 If the Indemnifier pays the Beneficiary money under an indemnity and the Beneficiary later recovers money which is directly related to the Claim, the Beneficiary must immediately repay the Indemnifier the lesser of either:

- (a) the sum recovered minus any legitimate amount spent by the Beneficiary when recovering this money; or
- (b) the amount the Indemnifier paid the Beneficiary for the Claim.

27 Preventing fraud, bribery and corruption

27.1 The Supplier must not during any Contract Period:

- (a) commit a Prohibited Act or any other criminal offence in the Regulations 57(1) and 57(2); or
- (b) do or allow anything which would cause CCS or the Buyer, including any of their employees, consultants, contractors, Subcontractors or agents to breach any of the Relevant Requirements or incur any liability under them.

27.2 The Supplier must during the Contract Period:

- (a) create, maintain and enforce adequate policies and procedures to ensure it complies with the Relevant Requirements to prevent a Prohibited Act and require its Subcontractors to do the same;

- (b) keep full records to show it has complied with its obligations under Clause 27 and give copies to CCS or the Buyer on request; and
- (c) if required by the Relevant Authority, within 20 Working Days of the Start Date of the relevant Contract, and then annually, certify in writing to the Relevant Authority, that they have complied with Clause 27, including compliance of Supplier Staff, and provide reasonable supporting evidence of this on request, including its policies and procedures.

27.3 The Supplier must immediately notify CCS and the Buyer if it becomes aware of any breach of Clauses 27.1 or 27.2 or has any reason to think that it, or any of the Supplier Staff, has either:

- (a) been investigated or prosecuted for an alleged Prohibited Act;
- (b) been debarred, suspended, proposed for suspension or debarment, or is otherwise ineligible to take part in procurement programmes or contracts because of a Prohibited Act by any government department or agency;
- (c) received a request or demand for any undue financial or other advantage of any kind related to a Contract; or
- (d) suspected that any person or Party directly or indirectly related to a Contract has committed or attempted to commit a Prohibited Act.

27.4 If the Supplier notifies CCS or the Buyer as required by Clause 27.3, the Supplier must respond promptly to their further enquiries, co-operate with any investigation and allow the Audit of any books, records and relevant documentation.

27.5 In any notice the Supplier gives under Clause 27.3 it must specify the:

- (a) Prohibited Act;
- (b) identity of the Party who it thinks has committed the Prohibited Act; and
- (c) action it has decided to take.

28 Equality, diversity and human rights

28.1 The Supplier must follow all applicable equality Law when they perform their obligations under the Contract, including:

- (a) protections against discrimination on the grounds of race, sex, gender reassignment, religion or belief, disability, sexual orientation, pregnancy, maternity, age or otherwise; and
- (b) any other requirements and instructions which CCS or the Buyer reasonably imposes related to equality Law.

28.2 The Supplier must take all necessary steps, and inform CCS or the Buyer of the steps taken, to prevent anything that is considered to be unlawful discrimination by any court or tribunal, or the Equality and Human Rights Commission (or any successor organisation) when working on a Contract.

29 Health and safety

29.1 The Supplier must perform its obligations meeting the requirements of:

- (a) all applicable Law regarding health and safety; and
- (b) the Buyer's current health and safety policy while at the Buyer's Premises, as provided to the Supplier.

29.2 The Supplier and the Buyer must as soon as possible notify the other of any health and safety incidents or material hazards they are aware of at the Buyer Premises that relate to the performance of a Contract.

30 Environment

30.1 When working on Site the Supplier must perform its obligations under the Buyer's current Environmental Policy, which the Buyer must provide.

30.2 The Supplier must ensure that Supplier Staff are aware of the Buyer's Environmental Policy.

31 Tax

31.1 The Supplier must not breach any Tax or social security obligations and must enter into a binding agreement to pay any late contributions due, including where applicable, any interest or any fines. CCS and the Buyer cannot terminate a Contract where the Supplier has not paid a minor Tax or social security contribution.

31.2 Where the Charges payable under a Contract with the Buyer are or are likely to exceed £5 million at any point during the relevant Contract Period, and an Occasion of Tax Non-Compliance occurs, the Supplier must notify CCS and the Buyer of it within 5 Working Days including:

- (a) the steps that the Supplier is taking to address the Occasion of Tax Non-Compliance and any mitigating factors that it considers relevant; and
- (b) other information relating to the Occasion of Tax Non-Compliance that CCS and the Buyer may reasonably need.

31.3 Where the Supplier or any Supplier Staff are liable to be taxed or to pay National Insurance contributions in the UK relating to payment received under an Order Contract, the Supplier must both:

- (a) comply with the Income Tax (Earnings and Pensions) Act 2003 and all other statutes and regulations relating to income tax, the Social Security Contributions and Benefits Act 1992 (including IR35) and National Insurance contributions; and
- (b) indemnify the Buyer against any Income Tax, National Insurance and social security contributions and any other liability, deduction, contribution,

assessment or claim arising from or made during or after the Contract Period in connection with the provision of the Deliverables by the Supplier or any of the Supplier Staff.

31.4 If any of the Supplier Staff are Workers who receive payment relating to the Deliverables, then the Supplier must ensure that its contract with the Worker contains the following requirements:

- (a) the Buyer may, at any time during the Contract Period, request that the Worker provides information which demonstrates they comply with Clause 31.3, or why those requirements do not apply, the Buyer can specify the information the Worker must provide and the deadline for responding;
- (b) the Worker's contract may be terminated at the Buyer's request if the Worker fails to provide the information requested by the Buyer within the time specified by the Buyer;
- (c) the Worker's contract may be terminated at the Buyer's request if the Worker provides information which the Buyer considers is not good enough to demonstrate how it complies with Clause 31.3 or confirms that the Worker is not complying with those requirements; and
- (d) the Buyer may supply any information they receive from the Worker to HMRC for revenue collection and management.

32 Conflict of interest

32.1 The Supplier must take action to ensure that neither the Supplier nor the Supplier Staff are placed in the position of an actual or potential Conflict of Interest.

32.2 The Supplier must promptly notify and provide details to CCS and each Buyer if a Conflict of Interest happens or is expected to happen.

32.3 CCS and each Buyer can terminate its Contract immediately by giving notice in writing to the Supplier or take any steps it thinks are necessary where there is or may be an actual or potential Conflict of Interest.

33 Reporting a breach of the contract

33.1 As soon as it is aware of it the Supplier and Supplier Staff must report to CCS or the Buyer any actual or suspected breach of:

- (a) Law;
- (b) Clause 12.1; or
- (c) Clauses 27 to 32.

33.2 The Supplier must not retaliate against any of the Supplier Staff who in good faith reports a breach listed in Clause 33.1 to the Buyer or a Prescribed Person.

34 Resolving disputes

34.1 If there is a Dispute, the senior representatives of the Parties who have authority to settle the Dispute will, within 28 days of a written request from the other Party, meet in good faith to resolve the Dispute.

34.2 If the Dispute is not resolved at that meeting, the Parties can attempt to settle it by mediation using the Centre for Effective Dispute Resolution (CEDR) Model Mediation Procedure current at the time of the Dispute. If the Parties cannot agree on a mediator, the mediator will be nominated by CEDR. If either Party does not wish to use, or continue to use mediation, or mediation does not resolve the Dispute, the Dispute must be resolved using Clauses 34.3 to 34.5.

34.3 Unless the Relevant Authority refers the Dispute to arbitration using Clause 34.4, the Parties irrevocably agree that the courts of England and Wales have the exclusive jurisdiction to:

- (a) determine the Dispute;
- (b) grant interim remedies; and/or
- (c) grant any other provisional or protective relief.

34.4 The Supplier agrees that the Relevant Authority has the exclusive right to refer any Dispute to be finally resolved by arbitration under the London Court of International Arbitration Rules current at the time of the Dispute. There will be only one arbitrator. The seat or legal place of the arbitration will be London and the proceedings will be in English.

34.5 The Relevant Authority has the right to refer a Dispute to arbitration even if the Supplier has started or has attempted to start court proceedings under Clause 34.3, unless the Relevant Authority has agreed to the court proceedings or participated in them. Even if court proceedings have started, the Parties must do everything necessary to ensure that the court proceedings are stayed in favour of any arbitration proceedings if they are started under Clause 34.4.

34.6 The Supplier cannot suspend the performance of a Contract during any Dispute.

35 Which law applies

This Contract and any Disputes arising out of, or connected to it, are governed by English law.