



Department for
Energy Security
& Net Zero

Flex Markets Unlocked Programme: Phase 1 Feasibility

SBRI COMPETITION GUIDANCE NOTES

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Flex Markets Unlocked Programme: Phase 1 Feasibility

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Glossary of terms and definitions

Term	Definition
AAR	Automatic Asset Registration Programme, a sub-programme of the NZIP Flexibility Innovation Programme
Applicant	A company, organisation or consortia of companies and/or organisations that submits an application in response to the competition
Authority / Contracting Authority	The Department for Energy Security & Net Zero
CER	Consumer Energy Resources
Competition	Means the process used to establish awarding of contracts for the provision of Phase 1 feasibility studies relating to the Flex Markets Unlocked Programme
Deliverables	Means the reports and other outputs to be delivered under the Contract as detailed at Section 4
DER	Distributed Energy Resources
Digital Spine	Digital Spine Feasibility Study, an innovation activity under the NZIP Flexibility Innovation Programme
DNO	Distribution Network Operator
Down-Selection	Means the process as detailed at Section 17 to select Phase 1 Project(s) to advance to Phase 2.
EIP	Energy Innovation Portfolio
ESO	Electricity System Operator
FAQs	Frequently asked questions
FIP	Flexibility Innovation Programme
FOIA	Freedom of Information Act (2000)
GDPR	General Data Protection Regulations
HMG	His Majesty's Government
Interoperability	Means the ability for a product or system to be compatible with other products or systems
IPR	Intellectual property rights
KPI	Key performance indicator
M	million
Minimum Threshold Scores	Means the minimum scores that Applicants must achieve against the Assessment Criteria to be considered for funding, as detailed at Section 5

Term	Definition
NZIP	Net Zero Innovation Portfolio
Phase 1	Means activities and outputs relating to the initial Feasibility phase of the innovation activity
Phase 2	Means activities and outputs relating to the subsequent phase of the innovation activity
Project Cost Breakdown Form ('the')	Means the 'Department for Energy Security & Net Zero Project Cost Breakdown Form' provided as an electronic Appendix to this Competition pack, and which Applicants must complete as their pricing proposal
Proof-of-concept	A functional technical solution which has greater function than a wire frame or mock up
Project(s)	Applicants' proposals for which the Competition seeks to award SBRI funding
REMA	Review of Electricity Market Arrangements
SMEDR	Smart Meter Energy Data Repository, a sub-programme of the NZIP Flexibility Innovation Programme
SME	Small and medium enterprise
SSFP	Transitioning to a net zero energy system: smart systems and flexibility plan 2021 ¹
T&C	Terms and conditions
Technical Solutions	Within the context of this Competition, technical solutions are those which facilitate system-wide coordination, standardisation and access to multiple flexibility markets by delivering the outcomes outlined in Section 2.
Technical specification	Documentation which describes (through text and diagrams) the scope, functionality, and technical requirements of a technical solution. This includes data requirements (including interoperability and privacy), application requirements (functionality, performance, interfaces and user experience), technology requirements (hardware, software and network infrastructure), technical architecture, and security requirements

¹ <https://www.gov.uk/government/publications/transitioning-to-a-net-zero-energy-system-smart-systems-and-flexibility-plan-2021>

Term	Definition
TOGAF Standard	TOGAF (The Open Group Architecture Framework) is a comprehensive open-access architectural framework that provides a common language, methodology, and toolset for organizations to design, plan, and implement business and IT strategies
UK	United Kingdom
User	User refers to asset owners, asset operators, aggregators, market owners/operators (Inc. Independent market platforms) and other Third Parties who exchange data in flexibility markets
VAT	Value-added tax

Please note that references to the "Department" or "Authority" throughout these documents mean The Secretary of State for Energy Security and Net Zero acting through his/her representatives in the Department for Energy Security and Net Zero.

Any reference to "Programme" is a reference to the Net Zero Innovation Portfolio: Flex Markets Unlocked Programme run by the Department for Energy Security and Net Zero. Any reference to "portfolio" is a reference to the Net Zero Innovation Portfolio (NZIP).

Supporting Documents

The following documents support this Competition Guidance and are available within the application form.

Annex 1: SBRI Contract Terms and Conditions

Annex 2: Declarations

- Declaration 1: Statement of non-collusion
- Declaration 2: Form of Bid
- Declaration 3: Conflict of Interest
- Declaration 4: Code of Practice for Research
- Declaration 5: The UK General Data Protection Regulation Assurance Questionnaire for Contractors
- Declaration 6: Standard Selection Questionnaire

Annex 3: Project cost breakdown form

Flex Markets Unlocked: Phase 1 Competition – Guidance for Applicants

The purpose of this Guidance is to give a comprehensive overview of the Flex Markets Unlocked Programme: Phase 1 - Feasibility SBRI Competition (“the Competition”) and associated procedures for participation in the Competition. This Competition forms part of the overarching up to [£65m Flexibility Innovation Programme](#) which seeks to enable electricity system flexibility through smart, flexible, secure and accessible technologies and markets.

The Flexibility Innovation Programme is part of the [Net Zero Innovation Portfolio \(NZIP\)](#). For further information on other innovation activity under the Net Zero Innovation Portfolio and the Flexibility Innovation Programme, please visit the Gov.uk webpages^{2,3}.

The up to £2.6m Flex Markets Unlocked Programme seeks to better enable distributed energy resources (DER) to participate in markets and provide system-wide flexibility in large volumes. The programme will support the design and development of innovative technical solutions that can facilitate system-wide coordination, standardisation, and revenue stacking across multiple flexibility markets (markets within which flexibility can be bought or sold), allowing a more diverse and competitive marketplace – unlocking flexibility.

The Competition is to be run in two Phases:

- **Phase 1** – Total budget of up to £600,000 excluding VAT to fund, through SBRI, up to 3 projects (up to £200,000 per project).

In Phase 1 the Authority expects to fund feasibility studies to develop robust technical specifications for proposed technical solutions.

Down selection

- **Phase 2** – Total budget of up to £2 million excluding VAT to fund, through SBRI, one Phase 2 Project.

In Phase 2 the Authority expects to fund one project to develop and demonstrate their technical solution, demonstrating its core functionalities and capabilities in a simulated trial environment at a minimum.

² www.gov.uk/government/collections/net-zero-innovation-portfolio

³ www.gov.uk/government/publications/flexibility-innovation

This SBRI Competition Guidance Document is for Phase 1 only. Information on Phase 2 is provided in **Section 17**, including the down-selection assessment process and criteria the Authority expects to use to select Project(s) to advance to Phase 2. Additional detail will be provided on Phase 2 in the Phase 2 Competition Guidance Document to be provided to successful Phase 1 applicants. The Phase 2 Competition Guidance document will be issued within the first 2 months of Phase 1 and prior to Projects progressing onto Phase 2 proposal work. The Authority does not expect the background or scope of this Competition to change in Phase 2.

1. Competition Overview

1.1. Background & Context

In order to decarbonise the power system by 2035, maintain security of supply, and achieve net zero at the least cost by 2050, we must transition to a smart and flexible electricity system. Without low carbon flexibility - the ability to shift the consumption or generation of energy in time or location to balance supply and demand – the system will be less secure and more expensive. Analysis from 2021 estimates that deploying flexibility could save up to £10 billion per year by 2050.⁴

In July 2021, the Government, jointly with Ofgem, published the 2021 Smart Systems and Flexibility Plan (SSFP). This sets out the need for much more low carbon flexibility to replace high carbon generation such as gas. Flexibility will be critical for the effective integration of low carbon power, buildings, and transport at least cost. It will lower consumer energy bills by reducing the amount of generation and network assets that need to be built to meet peak demand and giving consumers greater control through access to smart technologies and services.

Decarbonisation of our energy system including the electrification of transport and heating will drive the deployment of millions of distributed assets including electric vehicles, heat pumps and smart appliances. Key to achieving a smart and flexible energy system will be harnessing the value of distributed energy resources (DER) like these. Using these sources of demand flexibly – both in domestic and non-domestic sectors - represents a huge opportunity to make better use of our homegrown renewable electricity, reduce our dependence on gas and lower consumer bills. The 2021 SSFP sets out a wide range of actions for Government, Ofgem and industry that are needed to increase the deployment and flexible use of these technologies and unlock their value for consumers and the wider system.

For example, the 2021 SSFP set out several actions aimed at reforming markets to ensure they are open, accessible, and fully value the benefits of flexibility. Government and Ofgem set out actions for the system and network operators to improve standardisation of markets as well as coordination across local and national markets. The consequences of not doing this are inefficient operational decisions and a fragmented and complex landscape for flexibility providers where it is difficult to enter multiple markets and stack the revenues they need to unlock their business case.

⁴ <https://www.gov.uk/government/publications/transitioning-to-a-net-zero-energy-system-smart-systems-and-flexibility-plan-2021>

Progress has been made in these areas. For example, the Open Networks⁵ programme has developed a Common Evaluation Methodology tool enabling DNOs to evaluate flexibility procurement options. In April 2023 the first set of primacy rules were launched by Open Networks with the aim to reduce service conflicts between local and national markets. Previous innovation programmes funded under the Energy Innovation Portfolio (EIP) have awarded funding to develop digital flexibility marketplaces and trading platforms such as Project TraDER and Piclo Exchange. These successfully demonstrated the benefits of a neutral market facilitator within specific market elements and locations. The Piclo Exchange platform recently enabled the first secondary trade of a capacity market obligation.

This work, including the implementation of the Smart Systems and Flexibility Plan actions such as those taken forward by the Open Networks programme and the Electricity System Operators reforms to their suite of balancing services will remain critical to achieving ambitions in this space. Through this competition we will explore whether further benefits can be achieved by evolving the current architecture in order to scale up flexibility markets and fully integrate local and national markets. More specifically, some of the barriers for DER that we are observing in the market include:

- Low participation in major national markets due to operational complexity and higher perceived risk, aggravated by a lack of visibility on both the buy and sell side.
- Difficulties in revenue stacking because markets are not coordinated, limiting the scale and variety of DER that is coming forwards, as well as limiting market liquidity.
- Complicated market entry process particularly for smaller entrants, with opportunities fragmented across several markets with different registration, qualification and monitoring requirements.

The Flex Markets Unlocked Innovation Programme will explore solutions aimed at tackling the following problem statement:

The provision of distributed, small-scale flexibility is relatively untapped and there are challenges to realising its full system value; this value is fragmented across several markets that are not fully standardised, coordinated or fully accessible to this type of flexibility.

The programme is seeking solutions which could improve ease of access to markets, market coordination and revenue stacking across markets to get DER actively participating to provide system flexibility in large volumes. Solutions should reduce

⁵ <https://www.energynetworks.org/creating-tomorrows-networks/open-networks/>

the barriers for market owners to access flexibility embedded in the system, and for DER to be used effectively and compensated at market rates. They should facilitate a more seamless and streamlined market access for DER operators, making market entry easier, facilitating revenue stacking, and reducing the marginal cost of market participation for smaller assets.

In summary, the Flex Markets Unlocked programme will build on existing work to date, exploring what innovative technical solutions may come forward to facilitate system-wide coordination and integration of multiple flexibility markets- unlocking flexibility; understanding and testing how such solutions may work; and providing an evidence base for policy makers to draw upon.

Under the Government's Net Zero Innovation Portfolio (NZIP), up to £134 million in innovation funding is being dedicated to energy storage and flexibility innovation programmes. This includes the £65m Flexibility Innovation Programme (FIP) which will support electricity system flexibility by funding innovation in smart, flexible, secure, and accessible technologies and markets. The FIP has three focus areas: (i) integrating systems for flexibility - supporting the delivery of technologies and energy smart appliances that enable interoperable electricity system flexibility; (ii) data and digitalisation - supporting a digitalised energy system able to support the data flows and visibility needed to enable system flexibility; (iii) markets for flexibility - ensuring that markets can reward the value of flexibility. This Programme sits under the markets for flexibility focus area of the FIP.

Initiatives and documents of relevance to this competition include the following, please note this list is not exhaustive:

- **2021 Energy Digitalisation Strategy⁶** - sets out a vision and suite of policies to digitalise the energy system.
- **The Review of Electricity Market Arrangements (REMA) programme⁷** - this review of electricity market arrangements will identify reforms needed to transition to a decarbonised, cost effective and secure electricity system.
- **Delivering a smart and secure electricity system⁸** - this consultation sets out proposals to ensure consumers and the electricity system are protected, and to develop a competitive market for energy smart appliances and DSR.

6 <https://www.gov.uk/government/publications/digitalising-our-energy-system-for-net-zero-strategy-and-action-plan>

7 <https://www.gov.uk/government/consultations/review-of-electricity-market-arrangements>

8 <https://www.gov.uk/government/consultations/delivering-a-smart-and-secure-electricity-system-the-interoperability-and-cyber-security-of-energy-smart-appliances-and-remote-load-control>

- **2021 Smart Systems and Flexibility Plan⁹** - sets out a vision, analysis and a suite of policies to drive the deployment of low carbon flexibility, which will be critical for integrating low carbon power, heat and transport onto the system.
- **Ofgem’s “The Future of Distributed Flexibility” Call for Input¹⁰** – seeks views on common digital energy infrastructure to deliver information provision, market coordination of operations and access, and trust and governance. Ofgem set out four archetypes offering different levels of common digital energy infrastructure solutions, that deliver information, coordination, and trust to different degrees. The overarching aim is to tackle these issues and ensure that DER and Consumer Energy Resources (CER)¹¹ are actively engaged in all GB energy markets.
- **Digital Design Study¹²**– this contracted work, undertaken by IBM on behalf of Ofgem, was used to inform initial thinking on common digital energy infrastructure. It is a technical study which designed 3 archetypes for common digital energy infrastructure and assessed their functionality and technical feasibility.
- **Market Standards Study¹³** – this contracted work, undertaken by an Open Grid Systems (OGS) convened consortium of experts on behalf of Ofgem, was used to inform initial thinking on a standard interface model for market data. It is a technical study which explores existing data standards that could form the basis of a standard interface model and provides recommendations on how standards could be progressed.
- **Subprogrammes of the Flexibility Innovation Programme¹⁴** - the Flexibility Innovation Programme seeks to enable electricity system flexibility through smart, flexible, secure, and accessible technologies and markets. This programme consists of several sub-programmes, including the following of relevance:
 - **Automatic Asset registration (AAR) Programme¹⁵**, which aims to support the development of an automatic, automated secure data exchange process for registering small-scale energy assets and collecting and accessing small-scale energy asset data.
 - **Digital Spine Feasibility Study¹⁶**, which aims to establish the needs case, benefits, scope, and costs of an energy system ‘digital spine’.

9 <https://www.gov.uk/government/publications/transitioning-to-a-net-zero-energy-system-smart-systems-and-flexibility-plan-2021>

10 <https://www.ofgem.gov.uk/publications/call-input-future-distributed-flexibility>

11 Ofgem define CER as: smart connected assets capable of delivering a flexible energy, for example electric vehicles, heat pumps, modern white goods.

12 <https://www.ofgem.gov.uk/publications/call-input-future-distributed-flexibility>

13 <https://www.ofgem.gov.uk/publications/call-input-future-distributed-flexibility>

14 <https://www.gov.uk/government/publications/flexibility-innovation/>

15 <https://www.gov.uk/government/publications/automatic-asset-registration-aar-programme/>

16 <https://www.gov.uk/government/publications/energy-system-digital-spine-feasibility-study/>

- **Smart Meter Energy Data Repository (SMEDR) Programme**¹⁷, which aims to support innovation to determine the technical and commercial feasibility of a smart meter energy data repository.
- **Interoperable Demand Side Response Programme**¹⁸ which aims to support the development and demonstration of energy smart appliances for the delivery of interoperable demand side response.

1.2. Aims & Objectives

1.2.1. Programme Aims

The overall aim of the Flex Markets Unlocked Programme is to tackle the problem statement set out above by supporting the design and development of innovative technical solutions that can facilitate system-wide coordination, standardisation, and revenue stacking across multiple flexibility markets (markets within which flexibility can be bought or sold), allowing a more diverse and competitive marketplace – unlocking flexibility. In doing so, understanding and testing how such solutions may work, and providing an evidence base for policy makers to draw upon.

Delivered across two phases, the aim is to support technical solutions which deliver the following four key outcomes:

- 1. Information transparency:** enabling greater visibility of asset, product, and market operation data for all market participants.
- 2. Market access:** enable improved access to flexibility markets via common and streamlined processes.
- 3. Market coordination:** enabling improvement of operational efficiency by providing mechanisms to coordinate across multiple market products e.g., stacking and deconflicting products.
- 4. Trusted governance:** enabling transparency in decision making and governance, fostering trust in the marketplace.

The Objectives of each Phase of the Programme are as follows:

Phase 1 – Feasibility

Feasibility studies to develop robust technical specifications for proposed technical solutions that meet the four key outcomes set out above. The objectives of Phase 1 are to:

- Define the technical, user-centric¹⁹ solution and produce a technical specification for the proposed solution which meets the four key outcomes.

¹⁷ <https://www.gov.uk/government/publications/smart-meter-energy-data-repository-programme/>

¹⁸ <https://www.gov.uk/government/collections/interoperable-demand-side-response-programme/>

¹⁹ User refers to asset owners, asset operators, aggregators, market operators and other third parties who exchange data in flexibility markets.

- Assess the relevant constraints, dependencies, and enablers for the successful adoption of the technical solution. Including, for example, standard interface model, market rules, access to data sources, legislation, existing processes and systems.
- Assess how the solution fits within the wider context, with any existing infrastructure to standardise/coordinate markets, and any existing work (including innovation) on digital infrastructure for the energy system.
- Demonstrate the value of the technical solution outlining the expected costs and benefits.
- Outline suggested governance, enduring business models and delivery routes for the technical solution, including a robust delivery schedule for future adoption of the technical solution.
- Engage with relevant stakeholders to define the technical solution, including those working on initiatives and projects of relevance to this competition as noted in Section 1.

Phase 2 – Development and Demonstration

Development and delivery of a proof-of-concept technical solution, demonstrating its core functionalities and capabilities in a simulated trial environment. The objectives of Phase 2 are to:

- Produce an updated final technical specification for the technical solution.
- Develop, build and demonstrate the proof-of-concept technical solution which meets the four key outcomes, provides value and is scalable
- Demonstrate the proof-of-concept technical solution using simulated market data in a contained trial.
- Provide an updated assessment on the following objectives from Phase 1:
 - Assess the constraints, dependencies, and enablers to the successful adoption of the technical solution.
 - Assess how the solution fits within the wider context.
 - Assessment of the proposed value of the technical solution including the costs and benefits
 - Assessment of the suggested governance, enduring business models and delivery routes for the future adoption of the technical solution
- Engage with relevant stakeholders and users to test the technical solution

1.2.2. Programme Structure

The diagram below summarises expected dates and activities across the two Programme Phases. Timescales given below are indicative and the Department may alter any or all of the dates below.

It is anticipated that up to 3 Projects will be selected to conduct feasibility studies in Phase 1, in line with the selection process as set out at **Section 6**. It is anticipated that, following a down selection process, 1 Project would be taken forward to Phase 2. This down selection process is set out in **Section 17**.

Please note that the Authority reserves the right to not award any Contract agreements under this Phase 1 competition and under the Phase 2 down selection.

This structure is shown in Figure 1 below:

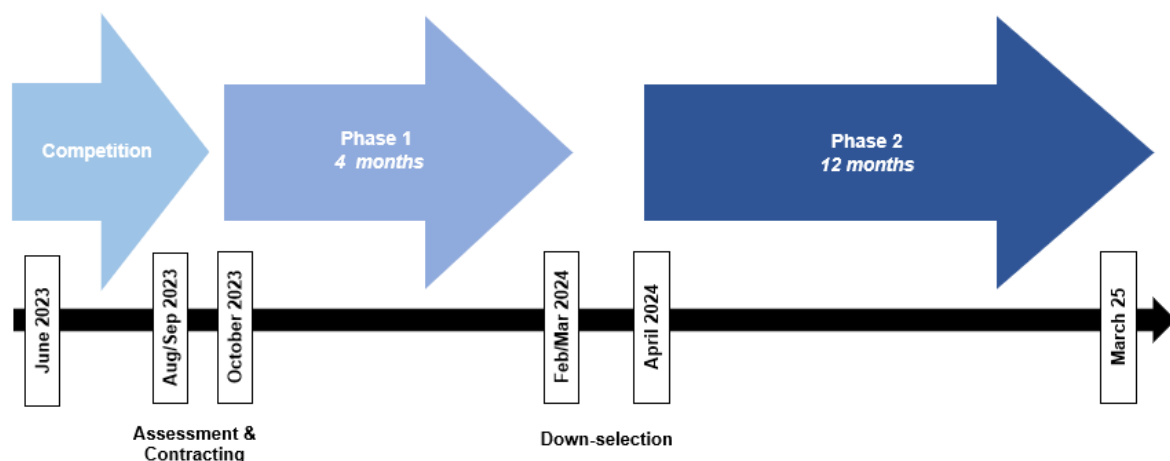


Figure 1: Competition timeline

Down-selection Period (February – March 2024)

- During Phase 1 the Department will issue the Phase 2 Competition Guidance document as detailed indicatively at **Section 17**.
- The Phase 2 Competition Guidance document will be issued within the first 2 months of Phase 1.
- Phase 1 Projects will then submit their Down-Selection Competition submissions in February 2024. The department reserves the right to alter this date.
- The Department expects to notify Projects of the outcome of down selection in late March/early April 2024 ahead of expected kick off of the Phase 2 project in April 2024.
- Projects successful at down selection into Phase 2 will be subject to a new SBRI contract for the delivery of Phase 2.

2. Programme Scope

The following section outlines the scope of the Flex Markets Unlocked Programme. Further detail on the scope of Phase 2 will be provided in the Phase 2 down-selection competition guidance notes.

Projects in scope for this competition are those which design, develop and demonstrate technical solutions (see glossary) which: deliver on the four outcomes across multiple markets, are innovative and introduce new functionality, build on and take note of wider work, are user centred, are scalable, and that share learnings, as described below.

Outcomes:

Projects in scope are those which address **at minimum** the below four outcomes in a cohesive way (for example considering the various dependencies between each outcome i.e., 'market coordination' is not possible without 'information transparency').

1. **Information transparency** – enabling greater visibility of asset, product and market operation data for all market participants and market owners, including:
 - a. Access to asset, product and market operation data
 - b. Accessible visualisations of historic data and asset and product data¹.
 - c. Report generation and wider analytic capabilities based on this data including forecasting, performance metrics and an asset's existing and potential market positions.
2. **Market access** – enabling improved access to flexibility markets via common and streamlined processes, including:
 - a. Standardised user-registration (incl. asset and product data)
 - b. Standardised cross-market pre-qualification
 - c. Management of user, asset and product data as well as access rights
3. **Market coordination** – improvement of operational efficiency by providing mechanisms to coordinate across multiple markets, including:
 - a. Implementation of revenue stacking rules for procurement
 - b. Implementation of primacy rules for operation
 - c. Implementation of user conflict notification
4. **Trust and governance** – enabling transparency in decision-making and governance, fostering trust in the marketplace, including:
 - a. Outlining the data exchange needs of the solution, including data and metadata models and underlying common taxonomy; proposing how these needs can be met using standards, including the use of existing standards or need for standards development or alternative approaches and why
 - b. Promoting transparency in dispatch decisions during market clearing, including conflict identification
 - c. Maintaining system-wide security of functions and users; defining and upholding operational processes; and proposing change management processes

Markets:

Projects in scope are those which seek to demonstrate the above four outcomes across multiple flexibility markets (markets within which flexibility can be bought or sold).

In Phase 1, projects should propose solutions that cover multiple markets (three or more) including **at least one from each** market category: the wholesale market/balancing mechanism, national markets, and local markets – see table 2.1 below.

In Phase 2 projects should demonstrate that their solutions cover multiple markets (three or more) including at least one from each market category: the wholesale market/balancing mechanism, national markets, and local markets- see table below.

Table 2.1. Market categories

Market Category	Examples
1. Wholesale Market/Balancing Mechanism	Spot power market (day-ahead and intraday), the Balancing Mechanism
2. National Market	Electricity System Operator ancillary services markets e.g. frequency response and reserve products; thermal, voltage and stability products
3. Local Market	Distribution Network Operator local flexibility markets e.g. sustain, secure, dynamic and restore products; active and reactive power products

Projects should propose which markets they expect to be included in Phase 2 demonstrations and the rationale for this decision in their Phase 2 proposals. Projects may demonstrate their solution across more markets than the minimum requirement, this must be set out in their Phase 2 proposals. For example, additional markets could include, but are not limited to:

- Capacity Market
- Trial peer-to-peer markets (capacity or energy)

When deciding which markets to demonstrate, projects should have consideration for markets that are 'stackable' i.e. markets which do not preclude participation in another.

The proposed technical solution should reflect existing market design; however, projects should also consider how their solution could adapt to how future market design may evolve over time.

Innovation, net new functionality and building on wider work:

Projects in scope should introduce net new functionality, avoiding duplication of existing work (both innovation projects and desk-based studies), existing market participant systems and other innovation-funded work. Projects that build on existing solutions are in scope as long as they are introducing net new functionality that satisfies the outcomes.

Where the solution duplicates existing, or pipeline infrastructure and the technical solution is not proposing to integrate this infrastructure this must be clearly stated, and a justification set out.

This technical solution should help to integrate existing systems where possible in the spirit of the outcomes outlined above.

User centred:

Projects in scope should be proposing technical solutions which are user²⁰-centred and provide a trusted and robust user experience that reduces friction for all participants; where trade-offs occur, they should favour flexibility providers over market owners.

Modular and scalable:

The solution must be future proofed and of a modular design that permits functionality and use cases to be added/removed on a case-by-case basis.

The solution should include a roadmap outlining the scalability of the proposed technical solution such that it could enable coordination across GB-wide flexibility markets, provided the necessary enablers are in place. Justification should be given where projects are unable to scale their solution to a particular market.

Sharing learnings:

As outlined in Section 1 a key aim of the Flex Markets Unlocked Programme is to contribute insights and evidence base on technical solutions and how they may work, to inform policy. The sharing of risks and benefits is an important aspect to the SBRI approach (see Section 8). Projects receive financial support and retain any intellectual property generated, with certain rights of use retained by the Department (see Section 11).

Projects in scope are therefore those which will share outputs widely and publicly, actively disseminating knowledge and learnings. This includes providing publicly accessible outputs, and specifically, providing a publicly published technical specification as part of the final report deliverable, and in accordance with Clause 27 of the Terms and Conditions. Detail on expected outputs is provided in Section 4 Requirements.

²⁰ See glossary for definition of user.

Projects are also encouraged to consider how learnings could be further disseminated through publication of outputs such as open-source code, open data licences and open standards, to maximise the utility of the sector investment and increase the likelihood of future adoption.

Out of Scope

The purpose of the programme is to explore and test possible technical solutions to address the problem statement - providing an evidence base and informing future policy; this programme is not procuring a long-term system wide solution.

The programme will not:

- Undertake decision making on questions such as institutional arrangement models for network and system operators.
- Undertake decision making on commercial or regulatory models in this area.
- Provide funding for wider market design considerations.
- Provide funding for technologies or approaches which are already widely or commercially deployed (in the UK or elsewhere) or which are very similar to those being tested in other existing or planned innovation projects. Projects that wish to build on existing solutions or approaches should clearly outline how their solution provides net new functionality that aligns with the four key outcomes of this competition.

3. Project team and expertise

Applications to this Competition are open to consortia with expertise in developing and building technical solutions.

This could include, but is not limited to, organisations such as:

- IT strategy service providers
- Software developers
- Independent market platforms
- Flexibility service providers
- Energy market consultancies
- Academic institutions
- Standards organisations

This Competition is open to non-energy sector expertise that could bring relevant skills from other sectors to benefit and support the programme's aim and objectives.

We also encourage experience in recognised design and development frameworks such as TOGAF, ISO/IEC 42010.

As per Section 2, projects are expected to propose solutions which cover multiple markets including at least one from each market category of: the wholesale market/balancing mechanism, national markets, and local markets. It is therefore expected that project teams consider the following with regards to expertise in the market areas outlined in table 2.1:

National markets – It is anticipated that the Electricity System Operator will be included in the governance structure for this programme (see Section 5), and the Department anticipates working with the ESO regarding facilitation of their engagement in the programme. The Department therefore anticipates that Projects do not need to approach the ESO to be part of their consortium for Phase 1 applications.

Local markets - Projects should consider the most appropriate form of engagement with the Distribution Network Operators in order to develop their technical solution. A DNO may be a member of a consortium, but this is not a requirement. It is expected that more significant engagement and involvement of a DNO would be required in Phase 2.

Wholesale markets/Balancing Mechanism - Where proposed technical solutions include the wholesale market (market category 1 above), applicants should consider the most appropriate form of engagement with the power exchanges. Where proposed technical solutions include the Balancing Mechanism (market category 1 above) the Department anticipates facilitating engagement with the ESO (see 'National markets' above for more detail).

4. Requirements & Deliverables

4.1. Phase 1 – Feasibility Studies

During Phase 1, Projects will be expected to develop robust technical specifications for innovative technical solutions that can facilitate system-wide coordination and access to multiple flexibility markets. The below table details the requirements expected from projects in Phase 1 and the associated deliverables.

Phase 1 Requirements and Deliverables Table

Category	Requirements	Deliverables
Kick-off and ongoing reporting	<p>Projects shall:</p> <ul style="list-style-type: none"> • Organise a kick-off meeting to discuss and agree detailed approach in relation to: <ul style="list-style-type: none"> ○ Project engagement with delivery partners, the Department and other relevant stakeholders ○ Project Plan – submitted as part of Application Stage – to inform population of Monthly Project Updates proforma (see Appendix 5) ○ Confirming arrangements for collection and monitoring of NZIP KPIs (see Section 5.2) ○ Other relevant issues as raised by Project or the Department personnel. • Provide Monthly Project Updates via a standardised proforma (see Appendix 5) provided by the Department. As a minimum this will include: <ul style="list-style-type: none"> ○ Progress against key work packages and deliverables ○ Status of invoices ○ Risks, and approach to mitigation of these 	<p>Monthly Project Updates – ongoing requirement</p>

Category	Requirements	Deliverables
Feasibility Study	<p>The Feasibility study should describe and specify the technical solution, and explore its dependencies, enablers, context, value, and potential funding and governance; and therefore should include, as a minimum:</p> <ul style="list-style-type: none"> • <u>A description of the proposed technical solution,</u> including <ul style="list-style-type: none"> ○ A description of how the technical solution addresses the problem statement. ○ A description of how the technical solution meets the scope (four outcomes and broader themes) set out in Section 2. ○ A description of key user journeys for the end-to-end service delivery, explaining how different users will interact with the technical solution. ○ An outline of the markets the technical solution seeks to facilitate and how this will be achievable. ○ A roadmap outlining the scalability of the proposed technical solution such that it could enable coordination across GB-wide flexibility markets, provided the necessary enablers are in place. Justification should be given where projects are unable to scale their solution to a particular market. • <u>An assessment of key constraints, dependencies, and enablers</u> for the proposed solution to meet the four key outcomes. This includes: <ul style="list-style-type: none"> ○ An assessment of the constraints, barriers and risks that must be overcome. ○ An assessment of the assumptions and dependencies that underpin the proposed solution. 	<p><i>Description of proposed solution & constraints, dependencies, enablers and wider context interim report – month 2</i></p> <p><i>Technical Specification Report - final month of Phase 1</i></p> <p><i>Feasibility Study Final Report – final month of Phase 1</i></p>

Category	Requirements	Deliverables
	<ul style="list-style-type: none"> ○ An assessment of the wider ecosystem enablers. This includes but is not limited to, stacking and primacy rules, data standards, standardised contracts, and products etc. ○ Provide a statement of potential Critical National Infrastructure (CNI) risks and impacts, including security and operability implications, of the technical solution spanning all flexibility markets in GB. ○ Provide a statement of intent that outlines how any necessary data sharing agreements (satisfying privacy, access and other relevant requirements) between relevant entities will be established by the supplier in a timely fashion, to support the ambition of Phase 2. ● <u>An assessment of how the solution fits within the wider context, including:</u> <ul style="list-style-type: none"> ○ An assessment of how the solution interacts with any existing work and infrastructure that aims to standardise and coordinate markets (e.g. platform development (including ESO, DNO and third party), and relevant ENA Open Networks Project workstreams), and any ongoing work on digital infrastructure for the energy system (including AAR and the Digital Spine). ○ Where applicable an outline of how the solution can be integrated and/or interoperable with any existing work identified through the assessment set out above. ● <u>A detailed Technical Specification (as defined in the glossary) for the proposed technical solution. This should include:</u> 	<p><i>Feasibility Study Final Report public version (published on the lead organisation webpage following approval by DESNZ) – final month of Phase 1</i></p>

Category	Requirements	Deliverables
	<ul style="list-style-type: none"> ○ Consideration of the data requirements including identifying the types of data that will be exchanged, the data sources and repositories, and the data integration requirements. Consideration should be given to any data security or privacy requirements that will need to be addressed. ○ Consideration of the application requirements including determining the required functionality, interfaces, and user experience. Consideration should be given to the range of performance or scalability requirements that will be required. ○ Consideration of the technology requirements including identifying the hardware, software and network infrastructure required to support the solution. Consideration should be given to integration or interoperability requirements with existing systems and platforms. ○ The Technical Specification should include aspects such as diagrams which define the technical solution in an enduring way. Applicants are encouraged to use internationally recognised open architecture design frameworks (i.e. TOGAF²¹, ISO/IEC 42010²²) to develop their Technical Specifications. ○ A Technical Specification report and a publicly published Technical Specification as part of the Feasibility Study Report public version deliverable (see also Section 2, Sharing learnings). ● <u>An assessment of the value of the technical solution</u>, including: 	

²¹ [The TOGAF® Standard, Version 9.2 \(opengroup.org\)](http://opengroup.org)

²² [ISO/IEC/IEEE 42010:2011 - Systems and software engineering — Architecture description](http://www.iso.org)

Category	Requirements	Deliverables
	<ul style="list-style-type: none"> ○ its contribution to a decarbonised, smart and flexible energy system and more widely the priorities of the Department for Energy Security & Net Zero ○ quantification of expected costs to the system ○ quantification of expected benefits to the system ● <u>An assessment of the funding and governance models, and long-term delivery routes for the proposed technical solution</u>, including: <ul style="list-style-type: none"> ○ An assessment of the case for intervention ○ A market failure test to determine in detail what governance and/or processes may be necessary to delivering the technical solution in a timely fashion. ○ Quantitative analysis to estimate development and ongoing costs for the proposed solution, including funding/business model options analysis and proposed long-term commercial operating model ○ Options for potential delivery routes and enduring governance structures, ● <u>Detailed evidence of stakeholder engagement</u>: <ul style="list-style-type: none"> ○ Engagement with relevant stakeholders that would interact with the proposed technical solution. This should include end users (e.g., flexibility service providers, aggregators, DSRSPs, asset operators, suppliers), buyers of flexibility (e.g., ESO/DNOs), other facilitating parties (e.g., independent market platform providers), energy regulator, potential operating and funding organisations and other relevant industry organisations. It should also include engagement with other innovation 	

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Category	Requirements	Deliverables
	<p>projects of relevance to this competition, including those stated in Section 1.1.</p> <ul style="list-style-type: none"> ○ Evidence that this stakeholder engagement has informed the development of the technical solution. <p>Further detail on specific methodologies and techniques are encouraged and should be documented using international standards where possible. ²³</p>	
<p>Knowledge Dissemination</p>	<p>Effective dissemination and knowledge sharing are key requirements in this Competition. Projects shall:</p> <ul style="list-style-type: none"> • Contribute to a minimum of one knowledge dissemination activity in Phase 1. • Produce a short knowledge dissemination report which includes lessons learnt and identification of opportunities for further knowledge dissemination in Phase 2. <p>In addition to this, Projects may be required to present at one of the anticipated Flexibility Innovation Programme showcase events. The purpose of these events is for knowledge dissemination and showcasing. These are anticipated to be half a day and be in person and/or virtual.</p> <p>Projects may also be required to attend one or more workshops alongside other relevant projects funded in the Flexibility Innovation Programme.</p>	<p>Knowledge dissemination report – end of Phase 1</p>

²³ Such as [IEC 62559 - use case methodology - SyC Smart Energy](#), or the equivalent.

4.2. Phase 2 - Development and Demonstration

In Phase 2 projects shall develop and deliver a proof-of-concept technical solution, demonstrating its core functionalities and capabilities in a simulated trial environment.

Category	Requirements	Deliverables
<p>Develop, Build & Demonstrate</p>	<p>Projects will be required to develop and deliver:</p> <ul style="list-style-type: none"> • A fully working version, a proof-of-concept (see glossary) of their technical solution that meets the programme aims and objectives. The solution should be built against the technical specification developed and outlined in Phase 1, with any updates or changes to the technical specification clearly documented. • Demonstrate the developed proof-of-concept technical solution under a simulated market environment at a minimum. Projects should demonstrate how their solution facilitates system-wide coordination, standardisation, and access to multiple flexibility markets and meets the four key outcomes. • Stakeholder engagement and user testing <p>We are open to projects proposing further demonstrative activities using live market data should this be achievable within the project timelines, but this is not mandatory.</p>	<p><i>Interim reports and demonstrations which show, document and evidence the development, testing and demonstration of the proof-of-concept technical solution – throughout phase 2 at frequency proposed by the project and agreed by the Department for Energy Security & Net Zero (minimum quarterly)</i></p>
<p>Final Report</p>	<p>Projects are required to produce a final report, which includes:</p> <ul style="list-style-type: none"> • An updated assessment on the following objectives from Phase 1: 	<p><i>Interim report on constraints, dependencies, enablers and wider</i></p>

Category	Requirements	Deliverables
	<ul style="list-style-type: none"> ○ Assess the constraints, dependencies, and enablers to the successful adoption of the technical solution. ○ Assess how the solution fits within the wider context. ○ Assessment of the proposed value of the technical solution including the costs and benefits ○ Assessment of the suggested governance, enduring business models and delivery routes for the future adoption of the technical solution <ul style="list-style-type: none"> ● An updated final Technical Specification (as defined in the Glossary) for the technical solution. This should include: <ul style="list-style-type: none"> ○ Consideration of the data requirements including identifying the types of data that will be exchanged, the data sources and repositories, and the data integration requirements. Consideration should be given to any data security or privacy requirements that will need to be addressed. ○ Consideration of the application requirements including determining the required functionality, interfaces, and user experience. Consideration should be given to the range of performance or scalability requirements that will be required. ○ Consideration of the technology requirements including identifying the hardware, software and network infrastructure required to support the solution. Consideration should be given to integration or interoperability requirements with existing systems and platforms. ○ The Technical Specification should include aspects such as diagrams which describe the technical solution in an enduring way. Applicants 	<p>context- 6 months into Phase 2</p> <p>Final report and presentation – end of Phase 2</p> <p>Final report and presentation public version (published on the lead organisation webpage following approval by the Department for Energy Security & Net Zero) – end of Phase 2</p>

Category	Requirements	Deliverables
	<p>are encouraged to use internationally recognised open architecture design frameworks (i.e. TOGAF²⁴, ISO/IEC 42010²⁵) to develop their Technical Specifications.</p> <ul style="list-style-type: none"> ○ A publicly published Technical Specification as part of the Phase 2 Final Report public version deliverable (see also Section 2, Sharing learnings). ● Documents the build of the proof-of-concept technical solution, evidencing what was delivered, reflecting on how Project Scope was met and the results of the trial and demonstration of the technical solution. ● A delivery schedule that shows how the solution could scale such that it could function across ultimately all electricity markets in GB, provided the necessary enablers are in place. This should indicate when any such enablers, as detailed in the report, would need to be in place within this delivery schedule. <p>Projects are also encouraged to publish open-source code, open data licences and open standards to maximise the utility of the sector investment and increase the likelihood of future adoption.</p>	

²⁴ [The TOGAF® Standard, Version 9.2 \(opengroup.org\)](https://www.opengroup.org/togaf)

²⁵ [ISO/IEC/IEEE 42010:2011 - Systems and software engineering — Architecture description](https://www.iso.org/standard/54548.html)

Category	Requirements	Deliverables
<p>Knowledge Dissemination</p>	<p>Effective dissemination and knowledge sharing are key requirements in this Competition.</p> <ul style="list-style-type: none"> • In Phase 2, Projects will be required to undertake activity which actively disseminates the work and results of the project, this includes contribution to a minimum of one knowledge dissemination activity. • In addition to this, Projects may be required to present at one of the anticipated Flexibility Innovation Programme showcase events. The purpose of these events is for knowledge dissemination and showcasing. These are anticipated to be half a day and be in person and/or virtual. • Projects may also be required to attend one or more workshops alongside other relevant projects funded in the Flexibility Innovation Programme. 	<p><i>Evidence of knowledge disseminated e.g. presentation, report etc – throughout Phase 2</i></p>

5. Ways of Working and Reporting

5.1. Project monitoring and reporting

Project monitoring and reporting is required to track Project progress and ensure payments are made according to a schedule of milestones to be agreed with selected Projects, and Applicants should expect significant interaction with the team during the project.

The successful Applicants will be expected to identify one named point of contact through whom all enquiries can be filtered. A Department for Energy Security & Net Zero project manager will be assigned to the project and will be the central point of contact, responsible for programme coordination and regular dissemination of learnings to relevant stakeholders. A Monitoring Officer may be appointed by the Department for Energy Security & Net Zero to oversee Project progress and provide additional assurance to the Department for Energy Security & Net Zero project manager.

Ahead of project kick off, a project plan and finance table, setting out the project work packages, deliverables and payment milestones and timelines will be agreed with successful applicants; and this will form part of the Terms and Conditions of Contract.

Throughout both phases of the Programme, Project teams will be expected to attend monthly meetings with the Department for Energy Security & Net Zero project manager and/or Monitoring Officer to discuss progress and highlight successes, issues and risks. As part of monthly reporting, Project teams will be expected to provide Monthly Project Updates via a standardised proforma (see Appendix 5), agreed at the Contract Award Stage. As a minimum this will include an overview of:

- Progress against key work packages and deliverables
- Status of invoices
- Risks, and approach to mitigation of these

This progress reporting will be in confidence to the Department for Energy Security & Net Zero, its technical advisers and internal governance bodies, and will not be published.

Any proposed changes to Project Plans, schedules, scope or costs during the project will need to be discussed with the Department for Energy Security & Net Zero proactively. The Department for Energy Security & Net Zero will review the proposed change and implications against its change control process and raise clarification questions as required for any identified areas of risk associated with the proposed change. The Department for Energy Security & Net Zero reserves the right to

withhold future SBRI funding where it does not believe these clarification questions have been adequately addressed and mitigated.

The successful Applicants will be expected to identify one named point of contact through whom all enquiries can be filtered. A Department for Energy Security & Net Zero project manager will be assigned to the project and will be the central point of contact, responsible for programme coordination and regular dissemination of learnings to relevant stakeholders. A Monitoring Officer may be appointed by the Department for Energy Security & Net Zero to oversee Project progress and provide additional assurance to the Department for Energy Security & Net Zero project manager.

With regards to any change in Project team composition during the Project, the lead project member must immediately inform the Department for Energy Security & Net Zero when they become aware of a likely change in project team composition. Where a new project team member is proposed as replacement, the lead project member must provide the same information for the proposed replacement team as would have been required at the initial application stage.

In addition to project monitoring and reporting, the Department for Energy Security & Net Zero also intends to convene a steering group for the Flex Markets Unlocked programme, and anticipates this governance structure will include representatives from stakeholders such as Ofgem and National Grid ESO.

The Department for Energy Security & Net Zero may choose to publish learnings from the programme and will agree a way to share such findings publicly with successful Projects. The Department for Energy Security & Net Zero may also share project outputs with other UK Government departments, and with stakeholders such as Ofgem, National Grid ESO or other relevant industry bodies, where required.

5.2. Key Performance Indicators

The Department for Energy Security & Net Zero requires all funded projects under the Net Zero Innovation Portfolio (NZIP) to report on key performance indicators (referred to as NZIP KPIs) to provide a consistent approach to reporting evidence, and to track and measure key outputs, outcomes and impacts. The evidence collected is used to demonstrate the impact of the NZIP on achieving the government's Net Zero ambitions and is necessary to be able to run future competitions.

Project lead organisations will be required to report on KPIs at various intervals for each project, including at the start of the project, during project delivery, at project closure and for three years after project closure. The Department for Energy Security & Net Zero will supply funded projects with a reporting template to complete at set intervals, and recipients are expected to return the template to their Monitoring Officer upon completion, who will review and quality assure it. Projects will only be required to report on KPIs that are relevant to their project. At project start, your Department for Energy Security & Net Zero Monitoring Officer will provide further

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details about the calculation of these KPIs, support in the selection of relevant KPIs, and assist with the initial completion and measurement.

Please note that it may at times be necessary to make changes to the NZIP KPIs, data collection modes or frequencies. We will endeavour to keep all changes to a minimum and communicate any implications to you via the Monitoring Officers in advance of collection.

Beyond these NZIP KPIs, the Department for Energy Security & Net Zero conducts independent evaluations of many of its programmes. The funded project organisation will be required to collaborate in reasonable evaluation activities, including, but not limited to, providing programme-specific KPIs, completing questionnaires or surveys, participating in interviews and workshops, communicating the learnings from the project, providing costs/sales data and elaboration of any of the measures covered in the NZIP KPIs.

The Department for Energy Security & Net Zero will be collecting the following KPIs, with data provided by Monitoring Officers marked in *italics*. Not all data will be collected annually.

KPI	KPI description	Metrics
<i>KPI 1</i>	<i>Number of NZIP projects supported</i>	<i>Project start and completion.</i>
<i>KPI 2</i>	<i>Number of NZIP projects that have met objectives</i>	<i>Extent to which project objectives have been met to date</i> <i>Change in objectives and reasons for change</i>
<i>KPI 3</i>	<i>Number of organisations supported to deliver the project</i>	<i>Lead partner delivering the project: name, organisation size and number and type of jobs supported within the organisation to deliver the project.</i> <i>Other partner organisations involved in delivering the project as named on the Contract or Grant: name, organisation size and number and type of jobs supported within the organisation(s) to deliver the project.</i>
<i>KPI 4</i>	<i>Number of active contractual and non-contractual business relationships supported</i>	<i>Number of contractual relationships: name and type of contractual relationship.</i>

KPI	KPI description	Metrics
		<p><i>Number of informal non-contractual business relationships: name and type of non-contractual relationship</i></p> <p><i>Extent to which your organisation expanded its network of business relationships as a result of the project</i></p>
KPI 5	Technology Advancement	<p>Technology Readiness Levels (current and anticipated)</p> <p>Other technology improvement indicators: patents applied for or granted; academic, technical or non-technical publications generated and knowledge exchange events attended (such as conferences)</p>
<i>KPI 6i</i>	<i>Initial Financial Leverage to deliver project</i>	Project funding structure: Amount in £m of Department for Energy Security & Net Zero, Other Public Sector and Private Funding.
6ii	Follow-on Funding secured	Amount of follow-on funding raised and the source (public or private).
KPI 7i	Reduction in energy costs	<p>Scope and scale of impact on reducing energy costs</p> <p>Route to reducing energy costs</p>
7ii	Increased energy efficiency/ Reduced energy demand	Scope and scale of impact on reducing energy demand/ increasing energy efficiency
7iii	Increase in energy system flexibility	<p>Scope and scale of impact on energy system flexibility</p> <p>Route to increasing energy system flexibility</p>
KPI 8	Commercialisation advancement	<p>Commercial readiness levels (current and anticipated)</p> <p>Steps towards commercialisation incl. licensing agreements, commercial</p>

KPI	KPI description	Metrics
		partnerships, product certifications etc.; national/ international standards passed UK and International sales secured and their value (£m)
KPI 9	CO2 emissions reductions	Scope and scale of project impact on carbon emissions Route to achieving carbon emissions reductions
KPI 10	Policy impact	Whether, how, and to what effect evidence from the project has informed policy development Whether projects have engaged in activities with industry or civil society

5.3. Evaluation requirements

Successful Applicants will also be required to participate in and facilitate an evaluation of this programme, which will be delivered by an external contractor commissioned by the Department. The specific role of the external evaluator and scope of the evaluation is yet to be confirmed, though it is likely to include qualitative and quantitative data collection and analysis in order to assess programme delivery, impact and value for money and identify lessons learned. Projects will be required to participate in and contribute to the evaluation activities, both during and after final contract payments, including, but not limited to, providing programme specific KPIs, completing questionnaires or surveys, participating in interviews and workshops, communicating the learning from the project, providing costs/sales data, and elaboration of any of the measures covered in the NZIP KPIs.

5.4. Benefits Realisation and Management

In Phase 2 projects will be asked to select one or more benefits that their project will contribute to. Projects should select benefits for which they can report on a minimum of one measure, and should note that if successful, they will be encouraged to report on more than one measure for their selected benefits.

In the table below the 'Benefit/Measure' column sets out the full list of benefits which Applicants can select from.

Table 5.1. Benefits and measures

Benefits	Measures
Reduction in carbon emissions	Potential volume of CO2 savings (kT CO2e/yr)
	Enabling increased renewable energy on the grid
	Reduction in energy consumption - energy saving per unit/yr (MWh/yr)
	Reduced peak demand for power
Accelerate Commercialisation	Value of sales
	Number and value of contracts signed
	Amount of private funding leveraged at project close
	Amount of follow-on funding received
	Increased deployment of commercially viable solutions
	Total value of exports/increased export potential
	Technology Readiness Level progression
Cost reduction of low carbon technologies	Reduction in cost of the innovation
	Reduction in the Levelised Cost of Energy
	Reduced cost to consumers. Supports lower consumer bills
Demonstrating UK leadership on the innovation	Number of domestic and international collaborations
	Number of invitations to speak at international events
	Amount of domestic and international interest in the technology
	Amount of media coverage
Increased knowledge stimulating further innovation	Successful completion and publication of project reports demonstrating viability of new technologies
	Amount of further R+D capital committed to the innovation
	Amount of additional investment received
	Number of trial consumers recruited and retained during the project
Growth and resilience in UK companies	Number of new companies in the project's supply chain
	Number of jobs supported
	Increased workforce
	Increase in the market potential of the innovation
Increased flexibility of supply	Amount of additional investment received
	Number of flexible tariffs that were developed and offered
	Number of consumers who signed up to flexible tariffs
	Number of low carbon technologies offered to consumers giving access to flexible tariffs

6. Competition Timetable, Application and Assessment Process

This SBRI Competition Guidance Document focuses on Phase 1. Indicative detail of the Phase 2 down-selection assessment process can be found in Section 17. Separate evaluation criteria will be used for Phase 1 and Phase 2. Evaluation Criteria for Phase 1 is set out in Section 6. Evaluation Criteria for Phase 2 are set out in Section 17.2, these are subject to additional detail and further iteration ahead of issue to Phase 1 Applicants.

The Competition funding will be awarded using the Small Business Research Initiative (SBRI) approach²⁶. SBRI is a well-established pre-commercial procurement process that enables the development of innovative products and services in response to specific challenges faced by government departments and public sector bodies. Successful business partners receive the finance to develop their innovative ideas, generating new business opportunities and routes to market.

6.1. Competition Timetable

The Competition is expected to run from October 2023 until March 2025. Indicative key Competition dates are shown in Table 6.1 below. Please note the Department reserves the right to vary these dates.

Table 6.1: Competition timetable

Stage	Activity	Target Date
Phase 1 – Projects awarded SBRI funding		
Launch	Competition opens to Applicants:	26 th June 2023
	Briefing events for potential Applicants:	13 th July 2023
	Submit Applicant clarification questions via e-mail ²⁷	17 th July 2023, 2pm
	Publication of Applicant clarification questions and answers	w/c 24 th July 2023
Apply	Submit registration online by ²⁸ :	2pm, 25 th July 2023

²⁶ <https://www.gov.uk/government/collections/sbri-the-small-business-research-initiative>

²⁷ Applicants should use 'Flex Markets Unlocked - Phase 1 Competition' as the header to flexibilityinnovation@beis.gov.uk

²⁸ Applicants are able to register after this date, but early registration is advised.

Stage	Activity	Target Date
	Submit proposal online by:	2pm, 7 th August 2023
Assess	Eligibility check, technical assessment and moderation:	August 2023
	Notification of award:	September 2023
Award	Award Agreement / Contract signature	October 2023
Delivery	Phase 1 Contract start date	October 2023
	Phase 1 Contract end date	February 2023
Phase 2 – Phase 1 Project(s) awarded further funding		
Issue	Confirmation of Down-Selection assessment process and issue of Phase 2 Competition Guidance documentation	December 2023
Apply	Submit Down-Selection documentation online	February 2024
Assess	Further Eligibility check, technical assessment and moderation	March 2024
Award	Confirmation of Phase 2 Award	March 2024
Delivery	Phase 2 Contract start date	April 2024
	Phase 2 Contract end date	March 2025

6.2. Application

The Application process is as follows:

1 – Accessing application documentation

- Applicants will be asked to complete an online Registration Form, following which a unique password will be generated. This will be required to access and complete the online Competition application form. The online Registration Form is available [here](#). Applicants are encouraged to register their interest by submitting registration forms by **25th July 2023**.
- Within a week of receipt of the Registration Form, the Department will issue a confirmation e-mail to the Applicant, with a password to log into the online application system and submit a subsequent application.
- Potential Applicants can also find further information on how to apply at the information event on **13th July 2023**. Please visit the competition website for

details on how to register for the event. Documentation from the event will be published on the Competition website.

2 – Completion of online application including clarification stage

- On receipt of the unique password, Applicants can then complete the online application form and submit supporting information outlining their proposal.
- To inform their application, Applicants are able to submit clarification questions to flexibilityinnovation@beis.gov.uk. Applicants should state in the e-mail header that the clarification question(s) relate to the **'Flex Markets Unlocked - Phase 1 Competition'**. The deadline for submitting clarification questions is **17th July 2023**. **Questions submitted after this deadline may not be answered.**
- The Authority will publish replies to any questions which, in our judgement, are of material significance through an online anonymised FAQ sheet, in the week commencing **24th July 2023**.
- All Applicants should consider the answers to the clarification questions and this Competition Guidance when preparing applications. The Department will evaluate applications on the assumption that they have done so.
- Applicants should ensure they have read this Competition Guidance document before starting to complete the application form.
- Applicants can save their application at any time by clicking "Save and Continue Later." You will then be e-mailed a link which you can use to return to your application and complete it, logging in with the same password.

3 – Submission of Proposal

- The full proposal including uploads of all required supporting documents (see 'Submission Content' bullet below) must be submitted online by **2pm, 7th August 2023**. Please note that each supporting document cannot exceed the size limit as set out within the application form.
- Any applications or supporting documentation received after the application deadline will not be considered.

Submission Content: Each proposal must include the following:

- Completed application form (online) including responses to relevant Assessment Criteria as set out at **Section 6** of this document.
- The following signed declaration forms. Applicants must download through the online application form, sign, and re-upload to their application:
 - Declaration 1: Statement of non-collusion
 - Declaration 2: Form of Bid – agreeing to the terms of the Competition application process

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- Declaration 3: Conflict of Interest
- Declaration 4: Code of Practice for Research
- Declaration 5: The UK General Data Protection Regulation Assurance Questionnaire for Contractors
- Declaration 6: Standard Selection Questionnaire
- Completed Cost Breakdown Form, [downloadable through the online application form; Applicants must sign and re-upload to their application].
- Completed Project Plan, e.g., detailed project Gantt chart and description of work packages, [to be attached by the applicant to their online application].

You should answer all questions on the application form in full. Incomplete applications are likely to be rejected, although the Department may, at its discretion, request clarification or additional data before making a final decision.

Submission Costs: You will not be entitled to claim from the Department any costs or expenses that you incur in preparing your application, whether or not your proposal is successful.

Consortium Applications: Applications may be submitted by project teams (consortia). Only one application should be submitted for each application, but all consortium partners are required to sign the completed declaration form for their application (Form of Tender).

If a consortium is not proposing to form a separate legal entity, the project partners will need to complete a Consortium Agreement and funding will not be provided by the Department until a signed consortium agreement has been finalised between all the members of the project consortium. A satisfactory Consortium Agreement must be signed within one (1) month of SBRI Funding Agreement signature. Please note that the Department reserves the right to require a successful consortium to form a single legal.

The Department recognises that arrangements in relation to consortia and sub-contractors may (within limits) be subject to future change. Applicants should therefore respond in the light of the arrangements as currently envisaged and are reminded that any future proposed changes in relation to the consortium must be submitted to the Department for approval.

Tender Validity. Tenders shall be valid for a minimum of 120 calendar days from the submission deadline.

Information Sharing. the Department may share information from applications with other UK Government departments, UKRI or with Ofgem for evaluation of the programme against broader decarbonisation efforts.

6.3. Assessment

Applications will initially be assessed against the Eligibility Criteria in **Section 8** below. **Applications which fail to satisfy the Eligibility Criteria will not be assessed further, so it is essential to ensure that your Project meets these criteria before you submit your application. Ineligible applications will receive brief feedback on the reason for their ineligibility.**

This Section sets out the Assessment process and criteria for the Phase 1 contract award. The Assessment process will be conducted as follows:

- Applications will be considered initially against the Competition eligibility criteria as set out in **Section 8**.
- Applications which meet all relevant eligibility criteria as detailed at Stage 1 will be further assessed against a number of Assessment Criteria by a minimum of three (3) assessors (the Department or the Department appointed assessors). The Assessment Criteria and linked scoring approach are set out at **Sections 6.3.1** and **6.3.2** respectively.
- Project scores will then be moderated to determine a ranking list that will be used to allocate the funding in line with guidance at **Section 6.3.3**.

6.3.1. Assessment Criteria

Applicants will be assessed against their response to the Assessment Criteria as set out below. Each of the six (6) criteria will be scored independently and will be given a score between 1 and 5 consistent with the guidance at **Section 6.3.2** below.

Applicants should ensure that their responses specifically address the requirements as set out in the 'Guidance' section linked to each Assessment Criterion.

Assessment Criterion 1 – Description of Innovative Solution			
Weighting	30%	Maximum Word Count – <i>file uploads not accepted</i>	3,000
Guidance			
Applicants should use their responses to describe the technical solution which they are seeking to explore and their approach to meeting the Phase 1 requirements for their proposed technical solutions. This should include:			
<ul style="list-style-type: none"> • Demonstration of a clear understanding of the Competition Phase 1 requirements, including a clear relation of the proposed Project to the overall aims of the NZIP and the Flexibility Innovation Programme. 			

- How their project meets all of the Project Objectives for Phase 1 as set out in **Section 1.2**
- A description of the proposed technical solution covering:
 - How it is innovative, and why – and to what extent – it is technically feasible.
 - How it addresses the problem statement outlined
 - The potential challenges associated with the development and deployment of their proposed solution
- How their Project and technical solution meets the Competition Scope as set out in **Section 2** covering:
 - How the solution meets all four key required outcomes outlined in Section 2.
 - How the solution will be demonstrated across a minimum of one market from each category - the wholesale market/balancing mechanism, at least one national, and at least one local market.
 - How the solution introduces net new functionality. If relevant, this should also include how the solution will interact with existing work and how you will ensure any interactions are captured in the design and development of the technical solution
 - How the solution will provide a robust user experience
 - How the solution will be of a modular design to ensure future scalability

Assessment Criterion 2 – Project Team and Expertise

Weighting	20%	Maximum Word Count - <i>not including file uploads for the organogram and CVs</i>	1,500
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Guidance

Applicants should use their responses to detail how their organisation(s) and proposed project team can offer the relevant skills, capabilities and expertise required to meet the Competition requirements, as set out in Section 1-4.

Responses should include:

- An organogram (one file upload – maximum 1 A4 side) with accompanying narrative clearly detailing the roles of all personnel from the lead Applicant – and consortium partners and sub-contractors as relevant – in delivery of the project.

- The relevant skills, qualifications, and expertise of main Project team members outlined in the organogram, mapped against key requirements. One file upload of summary CVs for relevant personnel – maximum one A4 side per person – should be attached to your application.
- Details of projects completed by the applicant in the last five (5) years that you consider of relevance to this Competition including key lessons learnt.
- A description of the Project team’s quality management standards, including a description of how the Project team will quality assure both technical outputs and report writing. Any relevant external QA accreditation should also be referenced.
- A letter of support for every project partner (consortium member) - one file upload of maximum one A4 side per letter of support.

Involvement of DNOs and wholesale market participants:

- Projects should set out how they intend to engage with one or more DNOs.
- Where Projects propose solutions that cover the wholesale market, they should set out how they intend to engage with the power exchanges to develop their technical solution.

For example, this may include a letter of support stating their intent to engage with the project.

Assessment Criterion 3 – Project Management and Risks

Weighting	20%	Maximum Word Count – <i>not including Gantt chart/Project Plan</i>	1,500
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Guidance

Project Management

Applicants’ responses should include:

A separate A3 Gantt chart (one file upload of maximum 1 A3 side) – or similarly detailed Project Plan attachment which is structured on a monthly basis for Phase 1:

- Clearly sets out key monthly tasks and milestones associated with the production of Project Deliverables as set out at **Section 4**.
- Highlights critical dependencies – with accompanying narrative to be provided within main body response.

Accompanying narrative detailing how you will ensure effective and appropriate project management.

Risk

Applicants’ responses should include:

A summary of the approach to risk management, including cybersecurity and privacy protocols around the collection, handling and storing of data.

What they regard as the top key risks to successful delivery of the Phase 1 Requirements including:

- A summary of the risk – including dependencies
- The potential risk impact; and
- Proposed approach to risk mitigation

Project are expected to consider both project delivery and technical solution delivery risks

Assessment Criterion 4 – Knowledge Dissemination

Weighting	5%	Maximum Word Count - <i>file uploads not accepted</i>	500
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Guidance

Consistent with relevant Intellectual Property requirements as set out at Paragraph 27 to Annex 1, Applicants are required to set out their plans for wider knowledge dissemination.

Applicants’ responses should include:

- A detailed plan for how the project will share Phase 1 outcomes with industry, including:
 - What outcomes will be shared
 - How the outcomes will be shared (including how the technical specification and final feasibility report will be made publicly accessible).
 - The key target stakeholders

Assessment Criterion 5 – Social Value

Weighting	10%	Maximum Word Count – <i>file uploads not accepted</i>	500
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Guidance

Applicants are required to provide commentary on how and why they believe the Project for which they are seeking SBRI funding support can positively contribute to the following “Tackling Economic Inequality” and “Equal Opportunity” Policy Outcomes as set out in HMG’s Social Value Model.

- Creating new businesses, jobs and skills
- Tackle workforce inequality

Please include:

your ‘Method Statement’, stating how you will achieve this and how your commitment meets the Award Criteria, and

a timed project plan and process, including how you will implement your commitment and by when. Also, how you will monitor, measure and report on your commitments/the impact of your proposals. You should include but not be limited to:

- Timed action plan
- Use of metrics
- Tools/processes used to gather data
- Reporting
- Feedback and improvement
- Transparency

Please note, contributions to social value should be specific to the Project and deliverable within the Project’s lifetime (Phase 1).

Assessment Criterion 6 – Value for Money

Weighting	15%	Maximum Word Count – <i>not including words in Project Cost Breakdown Form</i>	1,500
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Guidance

Applicants are required to complete the Project Cost Breakdown Form included as an electronic attachment in the Competition Pack – the ‘Phase 1 Project Cost Breakdown Form’ in line with guidance within the pack and at Appendix 4.

In addition, Applicants are required to provide overarching commentary (max 1,500 words) to accompany the detailed breakdown of their Project costs for all phases as set out in the Project Cost Breakdown Form. This commentary should:

Detail how you have satisfied yourself that all costs and overheads are realistic, robust, justified, and fair market value.

Demonstrate Project additionality, clearly setting out why SBRI funding is necessary for the Project to be taken forward, and why, without funding, the Project would either: not go ahead as planned, go ahead but on a reduced scale, or go ahead but over a longer timescale.

Applicants should note that the Department anticipates Phase 1 being largely desk-top and hence person-intensive exercise. On this basis additional justifying narrative should be provided for Phase 1 costs other than those captured on the 'Labour and Overheads' tab.

Applicants should include within their cost submissions eligible travel costs linked to future Flexibility Innovation programme showcase events at one of the Department offices in either London or Salford.²⁹

Applicants should also note that the Department will not normally pay overheads of over 50%, and overheads above this amount will need to be fully justified.

Applicants should pay close attention to the eligible and ineligible costs under SBRI funding outlined in Appendix 2. The Authority reserves the right to exclude Applicants from the Competition where they cannot satisfactorily evidence the eligibility of costs and overheads in line with guidance provided at Appendix 2.

6.3.2. Scoring Guidance

Applicants' Assessment Criteria 1 – 6 responses will be scored system outlined below.

Table 6.1: Scoring Guidance

Score	Description
1	<i>Not Satisfactory:</i> There is no evidence to very little evidence that the question has been satisfactorily answered and major omissions are evident.

²⁹ Within the Phase 1 Project Cost Breakdown Form Applicants are asked to include reasonable Travel and Subsistence costs (from within the UK) for one person to attend one Programme Showcase event in central London and one in Salford – see stipulated rows on the 'Travel and Subsistence' tab.

2	Partially Satisfactory: There is little evidence that the question has been satisfactorily answered and some omissions are evident. Much more detail is needed.
3	Satisfactory: There is reasonable evidence that the question has been satisfactorily addressed but some omissions are still evident and further detail is needed.
4	Good: The question has been well addressed with a good evidence base, with only minor omissions or lack of detail.
5	Excellent: There is clear evidence that the question has been completely addressed in all aspects, with questions answered clearly, concisely with a strong evidence base.

6.3.3. Selection Approach

The Authority will select those applications that offer the best overall value for money, based on their assessment against the criteria outlined in **Section Error!** Reference source not found.. Applications will be assessed by a minimum of three assessors, which could include the Department assessors and independent assessors (technical and commercial experts). A moderation meeting will be held at the end of the assessment process to agree the overall weighted scores for each of the applications.

Applications responses to Assessment Criteria 1-6 will be scored using the scoring system outlined at Table 6.1. To be eligible to receive funding, a Project application must achieve the following Minimum Threshold Scores:

- Achieve a score of at least 3 out of 5 for Assessment Criteria 1-2.
- Achieve a score of at least 2 out of 5 for Assessment Criteria 3-6.
- Achieve an overall minimum weighted score across all Assessment Criteria of 50%.

Applicants will be ranked in order of merit based on overall weighted score achieved. The up to three (3) highest-scoring eligible proposals which satisfy the relevant Minimum Threshold Scores will be put forward for funding.

In the event that two or more eligible applications receive the same overall weighted score, then the funding will be awarded to the Applicant with the highest score for the highest weighted criteria. In the event that two or more eligible applications receive the same scores across each criteria, then the assessors will reconvene for a further

moderation session to agree a consensus position around who should receive funding.

6.4. Award

The Competition contract agreements are expected to be signed in **October 2023**. Please note that the Department reserves its right to not award any Contract agreements under this Competition.

Contract terms: The Contract Agreement will be based on the the Department pre-commercial procurement contract. The terms and conditions for this agreement are provided inError! Reference source not found.**Error! Reference source not found. Annex 1. These terms and conditions are final and non-negotiable: by applying to the Competition, you are agreeing to these terms and conditions.**

Whilst no changes to the Contract will be permitted, there will be an opportunity for successful Applicants, prior to contracts being signed, to discuss the Contract at a meeting with official(s) from the Department. The the Department official(s) will explain the contractual terms and conditions and respond to any queries that the Applicant may have at this stage. **It is crucial that all Applicants review the terms and conditions prior to the submission of their application and ask any questions prior to submitting the application.** the Department officials will also discuss any risks raised through the assessment process and finalise the formal project milestones with the project team before issue of the Contract.

Consortium applications: For consortium applications, the lead company (project co-ordinator) will be the recipient of the Contract (the Supplier) and will be responsible for managing payment to the other project partners as well as sub-contractors.

7. Contract Size and Restrictions on Funding

This SBRI Competition Guidance Document focuses on Phase 1. Additional detail will be provided on Phase 2 in the Phase 2 Competition Guidance document issued to successful Phase 1 Applicants during Phase 1 delivery.

7.1. Competition budget and availability

The total budget available for this Competition covering Phase 1 is up to **£600,000** excluding VAT although the Department may, at its discretion, choose not to make an award, increase the available budget, or allocate an award that is less than the total budget depending on the quality of applications. the Department anticipates funding up to 3 Projects with a maximum value of **£200,000** excluding VAT per Project. Funding will be allocated based on the assessment process as set out at **Section 6**.

A maximum of **£2 million** excluding VAT will be available for Phase 2 funding. the Department anticipates funding 1 Project at Phase 2, with funding to be allocated based on the assessment process as set out at **Section 17**.

Should further budget become available, the Department may, at its discretion, choose to award funding to additional projects in order of total scores achieved in line with the process as set out at **Section 6**.

When applying, all costs should be provided **excluding VAT**³⁰.

IMPORTANT INFORMATION - No Reliance

Nothing in this funding call requires the Department to award any Applicant a contract of any particular amount or on any particular terms. the Department reserves the right not to award any contracts.

Applicants apply for funding in this Competition at their own risk and expense. the Department will not, under any circumstances, be liable nor make any contribution to the costs of participation, preparing proposals and taking any professional or specialist advice. Applicants accept the risk that they may not be awarded a contract. the Department gives no guarantee or warranty as to the nature, or number of projects funded.

³⁰ SBRI funding is within the scope of VAT so you can charge output VAT on top of your submitted costs. If you incur non-recoverable input VAT costs, you can pass this on to the Department for Energy Security & Net Zero but these irrecoverable VAT costs will be included within the cost.

7.2. Eligible Costs

Applicants are instructed that the Project costs quoted must reflect actual costs at a 'fair market value' and for this Competition, suppliers' profit must not be included. Your application must have at least 50% of the contract value attributed directly and exclusively to research and development services.

Applicants are required to complete the Project Cost Breakdown Form (attached to the online application form) to provide the necessary cost information for the assessment process. With the Competition requiring production of desktop reports, the Department anticipates that Applicants costs are likely to relate to people costs and linked overheads.

Project costs quoted must meet the requirements linked to eligible and ineligible costs as set out in **Appendix 2**. Further itemisation of costs and methods of calculation may be requested to support the application.

8. Eligibility for Funding

This SBRI Competition Guidance Document focuses on Phase 1. Indicative detail of the Phase 2 down-selection assessment process can be found in Section 17.

8.1. Competition Eligibility Criteria

To be eligible for funding, proposed Projects must meet all the following eligibility criteria. These will be listed in the online application form as the Yes/No questions exemplified below. Unless otherwise stated all criteria will apply to both this Phase 1 Competition, and the down selection of one Supplier to deliver against Phase 2 requirements.

1. Project Location

Over 50% of the Project's activities (as measured by eligible Project costs) must be conducted in the UK.

2. Scope and Applications

Please see **Section 2** for detail regarding scope of this Competition.

3. Project Status

the Department cannot provide funding for retrospective work on projects or provide funding to projects which have already begun. The value of retrospective work may, however, be considered in the assessment process.

4. Project Timescales

Target dates for key Project milestones will be agreed between successful Applicants and the Department prior to awarding the contract. Awarded contracts cannot fund retrospective work.

5. Additionality

Projects can only be funded where evidence can be provided that innovation would not be taken forwards (or would progress at a much slower rate) without public sector funding.

6. Terms and Conditions

Applicants must agree to the published Terms and Conditions. The terms and conditions for this agreement are provided in Annex 1. These terms and conditions

are final and non-negotiable: by applying to the Competition, you are agreeing to these terms and conditions.

7.Contract size

Funding will be awarded for up to 3 Projects

As detailed at **Section 7**, the indicative maximum award size per Project is £200,000 excluding VAT (this must cover 100% of eligible project costs).

Funding for Phase 1 and Phase 2 will be awarded under two separate contracts – see **Annex 1**.

8.Eligible Project costs

the Department will fund 100% of eligible Phase 1 Project costs through this competition; no match or in-kind funding is allowed.

SBRI is aimed at organisations working on research and development (R&D) of an innovative process, material, device, product, or service prior to commercialisation. Projects requesting funding for commercialisation activities are not eligible. Project teams are not permitted to include profit or contingency costs in the eligible project costs. Further information on eligible project costs is set out in **Appendix 2**.

9.Risk-Benefit Sharing

The sharing of risks and benefits is an important aspect to the SBRI approach. Projects receive financial support and retain any intellectual property generated, with certain rights of use retained by the Department (see **Section 11**). Project outputs are also expected to be shared widely and publicly and project teams are not permitted to include profit in the eligible project costs.

10.Applicants and Project team composition

All Phases of the Competition can be led by a single organisation or by a consortium.

For consortium applications, a single project application must be submitted by the lead project member (the project co-ordinator) on behalf of the consortium (please note that all consortium members will be required to sign the declaration form for their application).

Special Purpose Vehicles are permitted to lead consortia only if constituted as legal entities.

Applicants (sole Applicants and lead project members of consortium applications) must be able to demonstrate that they are financially viable.

Applicants based in Northern Ireland, or with significant interests or subsidiaries in Northern Ireland, will also be subject to scrutiny from the European Commission in accordance with Article 10 of the Northern Ireland Protocol to the UK/EU Withdrawal Agreement.

11. Multiple Applications

If project consortium members or subcontractors are part of multiple successful applications, they must be able to deliver on them and they must not have applied for funding for the same piece of work more than once. No organisation may lead more than one application.

8.2. General Department Conditions

Applicants must not meet any of the Department grounds for mandatory exclusion, and as a general rule they should not meet any of the Department grounds for discretionary exclusion (**see Appendix 3**). Applicants will be required to declare this as part of completing the Standard Selection Questionnaire.

Conflicts of interest

The Department standard terms and conditions of contract include reference to conflict of interest and require Suppliers to declare any potential conflict of interest to the Secretary of State.

For research and analysis, conflict of interest is defined as the presence of an interest or involvement of the Supplier, subcontractor (or consortium member) which could affect the actual or perceived impartiality of the research or analysis.

Where there may be a potential conflict of interest, it is suggested that the consortium or organisation designs working arrangements such that the findings cannot be influenced (or perceived to be influenced) by the organisation which is the owner of a potential conflict of interest. For example, consideration should be given to the different roles which organisations play in the research or analysis, and how these can be structured to ensure an impartial approach to the project is maintained.

This is managed in the procurement process as follows:

During the application process, Applicants may contact the Department to discuss whether or not their proposed arrangement is likely to yield a conflict of interest.

Suppliers are asked to sign and return Declaration 3 (this is embedded in the online application form and is included for reference in Annex 2) to indicate whether or not any conflict of interest may be, or be perceived to be, an issue. If this is the case, the contractor or consortium should give a full account of the actions or processes that it

will use to ensure that conflict of interest is avoided. In any statement of mitigating actions, contractors are expected to outline how they propose to achieve a robust, impartial and credible approach to the research.

When applications are scored, this declaration will be subject to a pass/fail score, according to whether, on the basis of the information in the proposal and declaration, there remains a conflict of interest which may affect the impartiality of the research.

Failure to declare or avoid conflict of interest at this or a later stage may result in exclusion from the procurement competition, or in the Department exercising its right to terminate any contract awarded.

Applicants will be subject to financial viability checks, as described in **Section 8**. the Department will make a decision as to the eligibility of projects based on the results of these checks.

9. Financial Eligibility and Viability

This SBRI Competition Guidance Document focuses on Phase 1. Indicative detail of the Phase 2 down-selection assessment process can be found in Section 17.

9.1. Financial Eligibility

Applicants are required to complete the relevant tabs of the Department Project costs breakdown form contracts (the 'Project Cost Breakdown Form') which is provided as **Annex 3** setting out their capped funding requirement to carry out the project. Applicants should only input in the specified light blue input cells and should consult guidance on completion which is embedded within the Form and can be accessed by clicking on the relevant cell.

the Department reserves the right to exclude Applicants from the Competition where they cannot satisfactorily evidence the eligibility of costs and overheads in line with guidance provided at **Appendix 2**. Financial information should include costs for the entire project, detailing labour (including personnel day rates), material and capital equipment costs, and any travel and subsistence requirements.

the Department can only provide funding for eligible costs and overheads incurred up to the end of the Contract.

9.2. Financial viability checks

Economic and Financial Assessment of Applicants

the Department will undertake financial viability checks on all provisionally successful Applicants. Where there is more than one organisation in the Applicant group, the required financial information (see below) should be provided for any entity who is forecast to deliver at least 25% of the Contract by value – including sub-contractors. Applicants may be asked to respond to clarification questions linked to these financial viability checks and, where relevant asked to provide satisfactory evidence of how identified financial risks are being actively managed and mitigated.

The Applicant's/Project's Financial Viability will take into account (amongst other things) whether the Applicant is able to demonstrate a robust business plan and financially sustainable business model in respect of the relevant Project. Tests of financial viability will be conducted in line with industry best practice. They may include (but are not limited to):

- whether an Applicant/Project/ultimate parent company has sufficient liquidity (it is capable of covering its short-term commitments);
- whether an Applicant/Project/ultimate parent company is financially autonomous (it is capable of covering its debt costs); and

- whether an Applicant/Project/ultimate parent company is solvent (it is capable of covering its medium and long-term commitments).

Checks will include reviewing the latest independently audited accounts filed on the Companies House database. Where a company or organisation is not required to file accounts with Companies House, other financial information will be requested to enable an appropriate financial viability review to be undertaken. This might include:

- A copy of last two years accounts as filed with Companies House; or
- A copy of last two years accounts – if not obliged to file with Companies House; or
- A statement of the turnover, Profit and Loss Account/Income Statement, Balance Sheet/Statement of Financial Position and Statement of Cash Flow for the most recent year of trading for this company or organisation
- Alternative means of demonstrating financial status if any of the above are not available (e.g., forecast of turnover for the current year and a statement of funding provided by the owners and/or the bank, charity accruals accounts or an alternative means of demonstrating financial status).

For Applicants bidding as a newly constituted company, the Authority will review letters of support from relevant partners / investors and may also review the financial statements of each partner.

Parent Company Guarantees and other potential mitigations

Where an Applicant is a special purpose vehicle (SPV), the Department will require a parent company guarantee(s) (PCG) from relevant companies or organisations. The Department shall accept this as satisfying the applicant's financial viability checks subject to the necessary financial viability checks being performed on the parent company to the Department's satisfaction.

The Department may also, at its discretion require PCGs or other satisfactory mitigations to be put in place in relation to other provisionally successful Applicants, ahead of Contract award. Acceptable mitigations may include, but are not limited to those set out in Section 3 to the Government and Commercial Function's' [Assessing and monitoring the economic and financial standing of suppliers guidance note May 2021.pdf \(publishing.service.gov.uk\)](#).

Where provisionally successful applicants are unable to provide mitigations to the Authority's satisfaction they will be excluded from the Competition.

Financial Viability checks Post-Contract Award

During both the Phase 1 and Phase 2 Contract period, successful Projects must provide to the Authority all subsequent year end accounting data – audited or alternative as set out above – within 30 days of accounts being issued, and this will be subject to the same scrutiny as set out above. Successful Applicants should also immediately notify the Authority, in writing, where they believe, on the balance of

probabilities, that they will not be able to access sufficient match funding to complete the Project.

The authority reserves the right to cease payment of allocated SBRI funding where it has reasonable grounds to believe that the successful Applicant is unlikely to be able to complete delivery of the Contract.

Contractual payments

The Authority will not make payments in advance of need and typically makes Contract payments in arrears on satisfactory completion of agreed milestones and deliverables. The authority therefore anticipates making payment after delivery of Feasibility Studies that meets all relevant quality content and format requirements as detailed at **Section 3** to this document.

The Authority understands, however, the difficulties which small businesses may face when financing this type of project. The Authority will explore cash flow issues with the Applicant as part of developing the financial and milestone profile during the Contract Award process. The Authority will offer flexibility in terms of profiles and payments, within the confines of the requirements for use of public money within which it operate.

10. Notifications and Publication of results

10.1. Notification

Applicants will be informed by email whether their application has been successful.

The Authority may wish to publicise the results of the scheme, which may involve engagement with the media. At the end of the application and assessment process, the Authority may issue a press release or publish a notice on its website. These public documents may, for example, outline the overall results of competitions and describe some of the projects to be funded.

Confidentiality request: Some organisations may want their activities to remain confidential and you will be given a chance to opt out of any involvement in media relations activity and further case study coverage of projects, should you see this as being absolutely necessary. However, the public description of the Project you provide in your application will be made available in the public domain if your application is successful, and you are not able to opt out of the project description being published. As such, you must provide a short description (Maximum 400 words) of your proposed project.

In addition, all funded projects must include reporting and dissemination milestones – agreed with the Department - as part of their project Deliverables, determined after the award of the contract (see **Section 4** for further information on Deliverables). Information about all contract awards will also be published on Contracts Finder.

Any organisation that wishes to publicise its project, at any stage, must contact the Competition Project Manager or their Project Monitoring Officer at the Department and obtain written permission before doing so.

10.2. Publication of results

SBRI involves a high degree of risk-benefit sharing. In return for provision of funding and non-financial support during project activities, the Department expects to be able to use and share the results and outputs of the project activities with other Government Departments, industry and other stakeholders to further understanding and progress technology development and deployment.

The Department also wishes to publicise details of the award recipients. Therefore, on or after issuing the SBRI contract agreement, the Department will publish the following information:

- Identity of the participant and its partners.

Flex Markets Unlocked Programme: Phase 1 Feasibility

- Project summary information including aims and expected outcomes of the project and technology area.
- Total award value.

Following completion of the funded projects, the Department will publish on its website a summary of the funded activities and the outcomes achieved. This will include a final summary report from each project.

The Department may also revisit projects at a later date and publish an evaluation report for the scheme as a whole.

The Department however recognise the need to maintain confidentiality of commercially sensitive information. The Department will consult Applicants regarding the nature of information to be published, in order to protect commercially sensitive information. The notice of the award on Contracts Finder will also include the value of the contract.

11. Intellectual Property

The proposed arrangements for intellectual property rights (IPR) and exploitation of IPR for Phase 1 are set out in the contract terms and conditions for this competition, in **Annex 1**

Subject to the requirements of **Conditions 27 and 28** of the standard terms and conditions (Annex 1) Applicants will retain ownership of the intellectual property generated from the project. Applicants are required to identify and record any such intellectual property and to protect patentable knowledge in accordance with **Condition 28** of the standard terms and conditions. If within five years of its creation Applicants have not commercially exploited intellectual property generated from the work, then in line with **clause 28 (5)** of the standard terms and conditions, the Department may request the intellectual property be assigned to the Department.

Consistent with the good management of Intellectual Property Rights and the continued agreement of the Authority, successful Applicants shall be expected to promote the dissemination of the arising Intellectual Property.

Please note: This competition includes requirements to publish publicly accessible versions of final reports from Phase 1 and Phase 2, with the requirement to include in these Technical Specifications (as defined in the glossary) for the technical solutions developed under the Programme. See Section 2 Sharing Learnings, and Section 4 Requirements for further details.

12. Feedback, Re-application and Right of Appeal

A short summary of key feedback regarding the applications will be provided to all Applicants. This feedback will be based on the comments of technical assessors. The Department provide comments where an Applicant is considered ineligible in light of financial viability checks. No additional feedback will be provided and there will be no further discussion on the application.

The feedback from the assessors is intended to be constructive. Comments are not a checklist of points which must be answered or argued in a resubmitted application as the assessors/requirements may be different and it is your decision as to whether you act on the suggestions made.

The Department's decision regarding any application is final and no appeal process is in place, so it is important that you make any points you wish to make clearly and concisely in the Application Form.

13. Confidentiality and Freedom of Information

The Freedom of Information Act 2000 (“FOIA”) and the Environmental Information Regulations 2004 (“EIR”) apply to the Department.

You should be aware of the Department’s obligations and responsibilities under FOIA or EIR to disclose, on written request, recorded information held by the Department. Information provided in connection with this procurement exercise, or with any contract that may be awarded through this exercise, may therefore have to be disclosed by the Department in response to such a request, unless the Department decides that one of the statutory exemptions under the FOIA or the exceptions in the EIR applies. Where any request is made to the Department under the FOIA for the release of information relating to any project or Applicant, which would otherwise be reasonably regarded as confidential information, the Department will notify you of the request as soon as we become aware of it.

If you wish to designate information supplied as part of your tender as confidential, or if you believe that its disclosure would be prejudicial to any person’s commercial interests, you must provide clear and specific detail as to the precise information involved and explain (in broad terms) what harm may result from disclosure if a request is received, and the time period applicable to that sensitivity. Such designation alone may not prevent disclosure if in the Department’s reasonable opinion publication is required by applicable legislation or Government policy or where disclosure is required by the Information Commissioner or the First-tier Tribunal (Information Rights).

As part of the application process all Applicants are asked to submit a public description of the project. This should be a public facing form of words that adequately describes the project but that does not disclose any information that may impact on Intellectual Property (IP), is confidential or commercially sensitive. The titles of successful projects, names of organisations, amounts awarded, and the description of the project may be published once the award is confirmed as final.

Additionally, the Government’s transparency agenda requires that tender documents (including competition guidance such as this) are published on a designated, publicly searchable web site. The same applies to other tender documents issued by the Department (including the original advertisement and the pre-qualification questionnaire (if used)), and any contract entered into by the Department with its preferred supplier(s) once the procurement is complete. By submitting a tender, you agree that your participation in this procurement may be made public. Aside from the public description of your project (see above), the answers you give in this response will not be published on the transparency web site (but may fall to be disclosed under

FOIA or EIR (see above)). Where tender documents issued by the Department or contracts with its suppliers fall to be disclosed the Department will redact them as it thinks necessary, having regard (inter alia) to the exemptions/exceptions in the FOIA or EIR.

14. Terms and Conditions

The Department's Standard Terms and Conditions of Contract as amended for the purposes of this Competition will apply to this contract (**see Annex 1**).

15. Further Instructions to Applicants

This SBRI Competition Guidance Document focuses on Phase 1. Indicative detail of the Phase 2 down-selection assessment process can be found in Section 17.

The Department reserves the right to amend the enclosed Competition documents at any time prior to the publication of supplier questions and answers. Any changes are most likely to include editorial errors and include FAQs from questions asked from stakeholders/applications before 17th July 2023, 2pm. Any such amendment will be numbered, dated and issued on the Programme website as well as on the [Contracts Finder Website](#). Where amendments are significant, the Department may, at its discretion, extend the deadline for receipt of tenders.

The Department reserves the right to withdraw this contract opportunity without notice and will not be liable for any costs incurred by applicants during any stage of the process. Applicants should also note that, in the event a proposal is considered to be fundamentally unacceptable on a key issue, regardless of its other merits, that proposal may be rejected. By issuing this Competition document, the Department is not bound in any way and does not have to accept the lowest, or any, proposal and reserves the right to accept a portion of any proposal unless the tenderer expressly stipulates otherwise.

15.1. Application checklist

To submit an application for this Competition, you must complete the online registration form, available at the link below, and use the resulting password to complete your online application form.

Link to online registration form:

<https://www.smartsurvey.co.uk/s/FlexMarketsUnlockedRegistration/>

Please answer all questions on the application form fully.

Please download from your application form, complete and upload to your application form the following documents. All these documents are also available on the Programme website.

- Project Cost Breakdown Form
- Signed Declarations:
 - Declaration 1: Signed Statement of Non-Collusion

- Declaration 2: Signed Form of Bid
- Declaration 3: Signed Conflict of Interests statement
- Declaration 4: Code of Practice for Research
- Declaration 5: UK GDPR Assurance Questionnaire
- Declaration 6: Signed Standard Selection Questionnaire, including addressing the Department Exclusion Grounds

15.2. Definitions

Please note that references to the "Department" throughout these documents mean The Secretary of State for Business, Energy and Industrial Strategy acting through his/her representatives in the Department for Business Energy & Industrial Strategy.

15.3. Data Protection and Security

The successful Applicant must comply with all relevant Data Protection Legislation, as defined in the terms and conditions applying to this Competition. A guide to the UK General Data Protection Regulation published by the Information Commissioner's Office, can be found [here](#).

Annex 2 contains a "The General Data Protection Regulation Assurance Questionnaire for Contractors" (Declaration 5) to evidence the extent of readiness. The Authority may ask the Contractor to provide evidence to support the position stated in the questionnaire. The Authority may require the successful Applicant to increase their preparedness where the Authority is not satisfied that the Applicant will be in a position to meet its obligations under the terms and conditions. If the Applicant fails to satisfy the Authority that it will be in a position to meet its obligations under the terms and conditions in the event that the Applicant is successful, the Authority reserves the right to exclude the Applicant from this procurement.

16. Non-Collusion

No application will be considered for acceptance if the Applicant has indulged or attempted to indulge in any corrupt practice or canvassed the tender with an officer of the Department. Annex 2 contains a "Statement of non-collusion" (Declaration 1); any breach of the undertakings covered under items 1 - 3 inclusive will invalidate your tender. If a Supplier has indulged or attempted to indulge in such practices and the tender is accepted, then grounds shall exist for the Authority to terminate the contract and claim damages from the successful contractors. You must not:

Tell anyone else what your capped price is or will be before the time limit for delivery of tenders.

Try to obtain any information about anyone else's application or proposed application before the time limit for delivery of applications.

Make any arrangements with another organisation about whether or not they should apply, or about their or your capped price.

Offering an inducement of any kind in relation to obtaining this or any other contract with the Department will disqualify your tender from being considered and may constitute a criminal offence.

17. Phase 2 Information

Following a competitive down-selection, Phase 2 will fund one project to develop and deliver a proof-of-concept technical solution, demonstrating its core functionalities and capabilities in a simulated trial environment.

17.1. Down-Selection Assessment Process

The Authority will use the Down-Selection Assessment process to select Project(s) to advance to Phase 2. The down-selection assessment process expected to be used is provided in this section (17.2) and a final version will be provided in the Phase 2 Competition Guidance Document to be provided to successful Phase 1 applicants. The Phase 2 Competition Guidance document will be issued within the first 2 months of Phase 1. The process to select the Phase 1 Project(s) to progress to Phase 2 will include an assessment of the Project's Phase 2 proposals.

This will include submission of Phase 2 Project Plans, cost projections, risk analysis and Project team organograms (updated from Phase 1 as necessary). Regarding updated Project team organograms, it is acknowledged that the lead partners in Projects may differ between Phase 1 and Phase 2 and Projects are expected to put forward organograms which best reflect how they intend to deliver Phase 2.

The Down-Selection Assessment process is set out below:

- Phase 1 Projects will be considered against Competition eligibility criteria as set out in **Section 8** to ensure ongoing compliance.
- Phase 1 Projects which meet all relevant eligibility criteria will then be further assessed against a number of Assessment Criteria by a minimum of three assessors (the Department or the Department appointed assessors). The Assessment Criteria and linked scoring approach are set out at **Sections 17.3** and **17.4** respectively.
- Project scores will then be moderated to determine a ranking list that will be used to allocate the funding in line with guidance at **Section 17.5**.
- The Phase 2 Proposal, the Project Cost Breakdown Form and Phase 2 Project Plan – will form the basis of the Agreement over the Phase 2 period.

17.2. Down-Selection Assessment Criteria

Table 17.1 – Down Selection – Assessment Criteria

Assessment Criterion 1 – Phase 1 Feasibility			
Guidance			
Applicants should use their response to summarise the technical solution developed in Phase 1, and how it meets the aims, objectives and scope of the Programme.			
Weighting	20%	Maximum word count	1000 words Maximum of 1 diagram
Assessment Criterion 2 - Phase 2 Proposal			
Weighting	20%	Maximum Word Count	1000 words
Guidance			
Applicants should use their responses to detail a proposal for the development and delivery of their technical solution in Phase 2 which would meet the Programmes aims, objectives and scope, and the expected Requirements of Phase 2 as detailed in Section 3.2.t. The Phase 2 proposal should include:			
<ul style="list-style-type: none"> • A costed development plan for the development and build of a fully working version of the proof-of-concept technical solution • A costed demonstration plan for the trial of the proof-of-concept technical solution which demonstrates the core functionalities and capabilities of the technical solution in a simulated trial environment • Detail on which market categories and markets are intended to be included in the demonstration of the technical solution; and the approach to their inclusion. Noting that, as detailed in the Phase 1 Competition Guidance, Projects in Phase 2 will have to at a minimum, demonstrate their solution across a minimum of one market from each of the categories of - the wholesale market/balancing mechanism, at least one national, and one local market. 			
Phase 2 proposals may propose further demonstrative activities using live market data should this be achievable within the project timelines, but this is not mandatory.			

Assessment Criterion 3 – Project Team and Expertise			
Weighting	15%	Maximum Word Count	500 words
<p>Guidance</p> <p>Applicants should use their responses to detail how their organisation(s) and proposed project team can offer the relevant skills, capabilities and expertise required to meet the Competition requirements, as set out in Section 1-4. Responses should include:</p> <p>An organogram (one file upload – maximum 1 A4 side) with accompanying narrative clearly detailing the roles of all personnel from the lead Applicant – and consortium partners and sub-contractors as relevant – in delivery of the project.</p> <p>The relevant skills, qualifications, and expertise of main Project team members mapped against key requirements. One file upload of summary CVs for relevant personnel – maximum one A4 side per person – should be attached to your application.</p> <p>Details of projects completed by the applicant in the last five (5) years that you consider of relevance to this Competition including key lessons learnt.</p> <p>A description of the Project team’s quality management standards, including a description of how the Project team will quality assure both technical outputs and report writing. Any relevant external QA accreditation should also be referenced.</p> <p>A letter of support for every project partner (consortium member) - one file upload of maximum one A4 side per letter of support.</p>			
Assessment Criterion 4 – Project Management and Risk			
Weighting	15%	Maximum Word Count	500 words

Guidance

Project Management

Applicants’ responses should include:

A separate A3 Gantt chart (one file upload of maximum 1 A3 side) – or similarly detailed Project Plan attachment which is structured on a monthly basis for Phase 2:

- Clearly sets out key monthly tasks and milestones associated with the production of Project Deliverables as set out at **Section 3**.
- Highlights critical dependencies – with accompanying narrative to be provided within main body response.

Accompanying narrative detailing how you will ensure effective and appropriate project management.

Risk

Applicants’ responses should include:

A summary of the approach to risk management, including cybersecurity and privacy protocols around the collection, handling and storing of data.

What they regard as the top key risks to successful delivery of the Phase 2 Requirements including:

- A summary of the risk – including dependencies
- The potential risk impact; and
- Proposed approach to risk mitigation

Assessment Criterion 5 – Knowledge Dissemination

Weighting	5%	Maximum Word Count	300 words
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Guidance

Consistent with relevant Intellectual Property requirements as set out at Paragraph 27 to Annex 1, Applicants are required to set out their plans for wider knowledge dissemination.

Applicants’ responses should include:

- A detailed plan for how the project will share Phase 2 outcomes with industry, including:
 - How the outcomes will be shared

<ul style="list-style-type: none"> ○ The key target stakeholders ○ The scale and scope (including lessons learned, and challenges faced) of the proposed knowledge dissemination activities 			
Assessment Criterion 6 – Social Value			
Weighting	10%	Maximum Word Count	300 words
<p>Guidance</p> <p>Applicants are required to provide commentary on how and why they believe the Project for which they are seeking SBRI funding support can positively contribute to the following “Tacking Economic Inequality” and “Equal Opportunity” Policy Outcomes as set out in HMG’s Social Value Model.</p> <ul style="list-style-type: none"> • Creating new businesses, jobs and skills • Tackle workforce inequality <p>Please include: your ‘Method Statement’, stating how you will achieve this and how your commitment meets the Award Criteria, and a timed project plan and process, including how you will implement your commitment and by when. Also, how you will monitor, measure and report on your commitments/the impact of your proposals. You should include but not be limited to:</p> <ul style="list-style-type: none"> ○ Timed action plan ○ Use of metrics ○ Tools/processes used to gather data ○ Reporting ○ Feedback and improvement ○ Transparency <p>Please note, contributions to social value should be specific to the Project and deliverable within the Project’s lifetime (Phase 2).</p>			
Assessment Criterion 7 – Value for Money			
Weighting	15%	Maximum Word Count	500 words

Guidance

As part of the down-selection process, Projects will be asked to complete a further, more detailed version of the Project Cost Breakdown Form – the '**Project Cost Breakdown Form – Phase 2**'.

In addition, Applicants are required to provide overarching commentary (max 1,500 words) to accompany the detailed breakdown of their Project costs for Phase 2 as set out in the Project Cost Breakdown Form. This commentary should:

Detail how you have satisfied yourself that all costs and overheads are realistic, robust, justified, and fair market value.

Demonstrate Project **additionality**, clearly setting out why SBRI funding is necessary for the Project to be taken forward, and why, without funding, the Project would either: not go ahead as planned, go ahead but on a reduced scale, or go ahead but over a longer timescale.

Applicants should include within their cost submissions eligible travel costs linked to attending scenario workshops and a maximum of two Flexibility Innovation programme showcase events at one of the the Department offices in either London or Salford.

Applicants should also note that the Department will not normally pay overheads of over 50%, and overheads above this amount will need to be fully justified.

Applicants should pay close attention to the eligible and ineligible costs under SBRI funding outlined in Appendix 2. The Authority reserves the right to exclude Applicants from the Competition where they cannot satisfactorily evidence the eligibility of costs and overheads in line with guidance provided at Appendix 2.

17.3. Down-Selection Assessment - Scoring Guidance

Applicants' Assessment Criteria 1 – 5 responses will be scored based on the system below:

Table 17.3: Scoring Guidance

Score	Description
1	Not Satisfactory: There is no evidence to very little evidence that the question has been satisfactorily answered and major omissions are evident.
2	Partially Satisfactory: There is little evidence that the question has been satisfactorily answered and some omissions are evident. Much more detail is needed.
3	Satisfactory: There is reasonable evidence that the question has been satisfactorily addressed but some omissions are still evident and further detail is needed.
4	Good: The question has been well addressed with a good evidence base, with only minor omissions or lack of detail.
5	Excellent: There is clear evidence that the question has been completely addressed in all aspects, with questions answered clearly, concisely with a strong evidence base.

17.4. Down Selection – Selection Approach

The Department will select the Phase 1 Project(s) that offers the best overall value for money, based on their assessment against the criteria outlined in **Section 17**. Projects will be assessed by a minimum of three assessors, which could include the Department assessors and independent assessors (technical and commercial experts). A moderation meeting will be held at the end of the assessment process to agree the overall weighted scores for each of the projects.

Responses to Assessment Criteria 1-6 will be scored using the scoring system outlined at **Table 17.3**. To be eligible to receive funding, a Project application must achieve the following Minimum Threshold Scores:

Achieve a score of at least 3 out of 5 for Assessment Criteria 1-3

Achieve a score of at least 2 out of 5 for Assessment Criteria 3-6.

Achieve an overall minimum weighted score across all Criteria of 50%.

The highest-scoring eligible Phase 1 Project(s) which satisfies the relevant Minimum Threshold Scores will be put forward for funding of at Phase 2 (subject to meeting relevant Phase 2 Stage Gate Review requirements).

In the event that two or more eligible Projects receive the same highest ranking overall weighted score, then the assessors will reconvene for a further moderation session to agree a consensus position around who should receive funding.

Appendix 1 – Technology Readiness Levels (TRLs)

Technology readiness levels are an indication of the maturity stage of development of a technology on its way to being developed for an application or product. The table below defines TRLs 1 to 9.

TRL	Description
Research and Development	
TRL 1 – Basic Research	Scientific research begins to be translated into applied research and development.
TRL 2 – Applied Research	Basic physical principles are observed, practical applications of those characteristics can be 'invented' or identified. At this level, the application is still speculative: there is not experimental proof or detailed analysis to support the conjecture.
Applied research and development	
TRL 3 – Critical Function or Proof of Concept Established	Active research and development is initiated. This includes analytical and laboratory studies to physically validate analytical predictions of separate elements of the technology. Examples include components that are not yet integrated or representative.
TRL 4 – Laboratory Testing/Validation of Component(s)/Process(es)	Basic technological components are integrated to establish that the pieces will work together.
TRL 5 – Laboratory Testing of Integrated/Semi-Integrated System	The basic technological components are integrated with reasonably realistic supporting elements so it can be tested in a simulated environment.
Demonstration	
TRL 6 – Prototype System Verified	Representative model or prototype system is tested in a relevant environment.
TRL 7 – Integrated Pilot System Demonstrated	Prototype near or at planned operational system, requiring demonstration of an actual system prototype in an operational environment.
Pre-commercial deployment	
TRL 8 – System Incorporated in Commercial Design	Technology is proven to work -actual technology completed and qualified through test and demonstration.

Flex Markets Unlocked Programme: Phase 1 Feasibility

TRL	Description
TRL 9 – System Proven and Ready for Full Commercial Deployment	Actual application of technology is in its final form - technology proven through successful operations.

Appendix 2 - Eligible and Ineligible Costs

This SBRI Competition Guidance Document focuses on Phase 1.

General Requirements

Timing: The Department will only provide the funding to cover eligible costs incurred and defrayed in the period between the project start date specified in the contract, and the deadline specified in the contract for completion of the project.

Who can incur eligible costs: The definition of eligible costs includes the Applicant's own costs, eligible costs incurred by consortium members and eligible costs incurred by companies sub-contracted to the Applicant or consortium members as defined in the application or subsequent agreements between the successful Applicant and the Department.

Non-sterling costs: Costs must be denominated in GB pounds. If relevant, Applicants should indicate where conversion has been made to GB pounds from other currencies and indicate the conversion rate and assumptions used.

Research and development costs: Your application must have at least 50% of the Contract value attributed directly and exclusively to research and development services.

Eligible Costs:

Directly incurred costs:

These are costs that are specific to the project that will be charged to the project as the amount spent, fully supported by an audit record justification of a claim. They comprise:

- Labour costs for all those contributing to the project, broken down by individual
- Material costs (including consumables specific to the project)
- Capital equipment costs*
- Sub-contract costs
- Travel and subsistence

*Under SBRI rules, the Department will only pay full capital equipment costs for equipment that is specialised and bespoke enough that it only has a value for the

duration of the project. For capital equipment that has a value at the end of the contract, the Department will only pay depreciation costs for the duration of the project, in line with your accounting policy for depreciation. For example, if a project budget includes the cost of purchasing six new laptops, it is highly likely that these will still have value at the end of the project. As such, the Department would only pay depreciation costs on these laptops across the duration of the project.

Indirect costs:

Indirect costs should be charged in proportion to the amount of effort deployed on the project. Applicants should calculate them, using their own cost rates. They may include:

- General office and basic laboratory consumables
- Library services / learning resources
- Typing / secretarial
- Finance, personnel, public relations and departmental services
- Central and distributed computing
- Overheads

the Department will not normally pay overheads of over 50%, and any overheads above this amount will need to be fully justified.

Ineligible Costs:

Under no circumstances can costs for the following items be claimed:

- Commercialisation activities
- Profit (i.e. Applicants should not include profit for themselves or the other project team members within indirect costs or include it as a separate project cost)
- Profit on contractors (i.e., where contractors are used in key posts, these contractors should be paid at the standard market rate)
- Contingency / Contingent costs
- Protection of IPR (including patent costs)
- For activities of a political or exclusively religious nature
- In respect of costs reimbursed or to be reimbursed by funding from other public authorities or from the private sector
- In connection with the receipt of contributions in kind (a contribution in goods or services as opposed to money)

- To cover interest payments (including service charge payments for finance leases)
- For the giving of gifts to individuals, other than promotional items with a value no more than £10 a year to any one individual
- For entertaining (entertaining for this purpose means anything that would be a taxable benefit to the person being entertained, according to current UK tax regulations)
- To pay statutory fines, criminal fines or penalties
- In respect of VAT that you are able to claim from HM Revenue and Customs.

Appendix 3 - Exclusion Grounds

Mandatory Exclusion Grounds

Listed in Public Contract Regulations 2015 (as amended) R57(1), (2) and (3) and the Public Contract Directives 2014/24/EU Article 57(1).

Participation in a criminal organisation

- Participation offence as defined by section 45 of the Serious Crime Act 2015
- Conspiracy within the meaning of:
 - section 1 or 1A of the Criminal Law Act 1977; or
 - article 9 or 9A of the Criminal Attempts and Conspiracy (Northern Ireland) Order 1983,

where that conspiracy relates to participation in a criminal organisation as defined in Article 2 of Council Framework Decision 2008/841/JHA on the fight against organised crime.

Corruption

- Corruption within the meaning of section 1(2) of the Public Bodies Corrupt Practices Act 1889 or section 1 of the Prevention of Corruption Act 1906;
- The common law offence of bribery;
- Bribery within the meaning of sections 1, 2 or 6 of the Bribery Act 2010, or section 113 of the Representation of the People Act 1983.

Terrorist offences or offences linked to terrorist activities

- Any offence:
 - listed in section 41 of the Counter Terrorism Act 2008;
 - listed in schedule 2 to that Act where the court has determined that there is a terrorist connection;
- under sections 44 to 46 of the Serious Crime Act 2007 which relates to an offence covered by the previous two points.

Money laundering or terrorist financing

- Money laundering within the meaning of sections 340(11) and 415 of the Proceeds of Crime Act 2002
- An offence in connection with the proceeds of criminal conduct within the meaning of section 93A, 93B or 93C of the Criminal Justice Act 1988 or article 45, 46 or 47 of the Proceeds of Crime (Northern Ireland) Order 1996.

Child labour and other forms of trafficking human beings

- An offence under section 4 of the Asylum and Immigration (Treatment of Claimants etc.) Act 2004;
- An offence under section 59A of the Sexual Offences Act 2003
- An offence under section 71 of the Coroners and Justice Act 2009;
- An offence in connection with the proceeds of drug trafficking within the meaning of section 49, 50 or 51 of the Drug Trafficking Act 1994
- An offence under section 1, 2 or section 4 of the Modern Slavery Act 2015.

Non-payment of tax and social security contributions

- Breach of obligations relating to the payment of taxes or social security contributions that has been established by a judicial or administrative decision.
- Where any tax returns submitted on or after 1 October 2012 have been found to be incorrect as a result of:
- HMRC successfully challenging the potential supplier under the General Anti – Abuse Rule (GAAR) or the “Halifax” abuse principle; or
- a tax authority in a jurisdiction in which the potential supplier is established successfully challenging it under any tax rules or legislation that have an effect equivalent or similar to the GAAR or “Halifax” abuse principle;
- a failure to notify, or failure of an avoidance scheme which the supplier is or was involved in, under the Disclosure of Tax Avoidance Scheme rules (DOTAS) or any equivalent or similar regime in a jurisdiction in which the supplier is established.

Other offences

- Any other offence within the meaning of Article 57(1) of the Directive as defined by the law of any jurisdiction outside England, Wales and Northern Ireland.
- Any other offence within the meaning of Article 57(1) of the Directive created after 26th February 2015 in England, Wales or Northern Ireland.

Discretionary Exclusions Grounds

Listed in Public Contract Regulations 2015 (as amended) R57(8) and the Public Contract Directives 2014/24/EU Article 57(4).

Obligations in the field of environment, social and labour law.

- Where an organisation has violated applicable obligations in the fields of environmental, social and labour law established by EU law, national law, collective agreements or by the international environmental, social and labour law provisions listed in Annex X to the Directive (see copy below) as amended from time to time; including, but not limited to, the following:-
- In the last 3 years, where the organisation or any of its Directors or Executive Officers has been in receipt of enforcement/remedial orders in relation to the Health and Safety Executive (or equivalent body).
- In the last three years, where the organisation has had a complaint upheld following an investigation by the Equality and Human Rights Commission or its predecessors (or a comparable body in any jurisdiction other than the UK), on grounds of alleged unlawful discrimination.
- In the last three years where the organisation has been convicted of a breach of the Health and Safety legislation.
- In the last three years, where any finding of unlawful discrimination has been made against the organisation by an Employment Tribunal, an Employment Appeal Tribunal or any other court (or incomparable proceedings in any jurisdiction other than the UK).
- Where the organisation has been in breach of section 15 of the Immigration, Asylum, and Nationality Act 2006;
- Where the organisation has a conviction under section 21 of the Immigration, Asylum, and Nationality Act 2006;
- Where the organisation has been in breach of the National Minimum Wage Act 1998.

Bankruptcy, insolvency

- Bankrupt or is the subject of insolvency or winding-up proceedings, where the organisation's assets are being administered by a liquidator or by the court, where it is in an arrangement with creditors, where its business activities are suspended or it is in any analogous situation arising from a similar procedure under the laws and regulations of any State.

Grave professional misconduct

- Guilty of grave professional misconduct

Distortion of competition

- Entered into agreements with other economic operators aimed at distorting competition.

Conflict of interest

- Aware of any conflict of interest within the meaning of regulation 24 due to the participation in the procurement procedure

Been involved in the preparation of the procurement procedure.

- Advised the contracting authority or contracting entity or otherwise been involved in the preparation of the procurement procedure.

Prior performance issues

- Shown significant or persistent deficiencies in the performance of a substantive requirement under a prior public contract, a prior contract with a contracting entity, or a prior concession contract, which led to early termination of that prior contract, damages or other comparable sanctions.

Misrepresentation and undue influence

- The organisation has influenced the decision-making process of the contracting authority to obtain confidential information that may confer upon the organisation undue advantages in the procurement procedure, or negligently provided misleading information that may have a material influence on decisions concerning exclusion, selection or award, or withheld such information or is not able to submit supporting documents required under regulation 59.

Breach of obligations relating to the payment of taxes or social security contributions.

- The contracting authority reserves the right to use its discretion to exclude a potential supplier where it can demonstrate by any appropriate means that the potential supplier is in breach of its obligations relating to the non-payment of taxes or social security contributions.

Additional grounds

ANNEX X Extract from Public Procurement Directive 2014/24/EU

LIST OF INTERNATIONAL SOCIAL AND ENVIRONMENTAL CONVENTIONS REFERRED TO IN ARTICLE 18(2) —

- ILO Convention 87 on Freedom of Association and the Protection of the Right to Organise;
- ILO Convention 98 on the Right to Organise and Collective Bargaining;
- ILO Convention 29 on Forced Labour;
- ILO Convention 105 on the Abolition of Forced Labour;
- ILO Convention 138 on Minimum Age;

- ILO Convention 111 on Discrimination (Employment and Occupation);
- ILO Convention 100 on Equal Remuneration;
- ILO Convention 182 on Worst Forms of Child Labour;
- Vienna Convention for the protection of the Ozone Layer and its Montreal Protocol on substances that deplete the Ozone Layer;
- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention);
- Stockholm Convention on Persistent Organic Pollutants (Stockholm POPs Convention)
- Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (UNEP/FAO) (The PIC Convention) Rotterdam, 10 September 1998, and its 3 regional Protocols.

Consequences of misrepresentation

A serious misrepresentation which induces a contracting authority to enter into a contract may have the following consequences for the signatory that made the misrepresentation:-

- The potential supplier may be excluded from bidding for contracts for three years, under regulation 57(8)(h)(i) of the PCR 2015;
- The contracting authority may sue the supplier for damages and may rescind the contract under the Misrepresentation Act 1967.
- If fraud, or fraudulent intent, can be proved, the potential supplier or the responsible officers of the potential supplier may be prosecuted and convicted of the offence of fraud by false representation under s.2 of the Fraud Act 2006, which can carry a sentence of up to 10 years or a fine (or both).
- If there is a conviction, then the company must be excluded from procurement for five years under reg. 57(1) of the PCR (subject to self-cleaning).

Appendix 4 – Completion of Project Cost Breakdown Form

Overview

The Department Project Cost Breakdown Form is a standard template used to capture costs and overheads to inform multiple procurement competitions of varying size and scope. As a result, whilst it contains multiple green input tabs, not all will require completing, particularly for lower value or less complex procurements.

Flex Markets Unlocked Programme: Phase 1 Feasibility– Mandatory input tabs for all Applicants

Based on project requirements as detailed at **Section 2 and 3**, Applicants must **as a minimum**, complete the following tabs:

Labour & Overhead Costs tab

For all project team members for whom the Applicant wishes to recover costs or overheads they must complete all light blue input cells (columns C,E,G,I and M) following the example format provided at Row 18.

Project Quarterly Breakdown tab

At columns H and I Applicants should provide a quarterly profile for each Cost or Overhead category where £ amounts have been entered. Please note the FY22-23 totals at column L must equal the equivalent total on the 'Summary' tab – Thus the 'Total Labour costs' figure at cell L10 of the Project Quarterly Breakdown tab must equal the 'Total Labour Costs, exc Overheads' figure at cell E17 of the 'Summary' tab.

Flex Markets Unlocked Programme: Phase 1 Feasibility – Other potential input tabs

Applicants intending to claim eligible Travel and Subsistence Costs must complete the relevant blue input fields in the **Travel & Subsistence tab**. Applicants intending to utilise one or more Sub-Contractors must complete the relevant blue input fields in the **Sub-Contract Costs tab**. For consortia applications, each Partner must complete the relevant light blue input cells in the **Partner Breakdown tab**.

Applicants intending to claim for other costs should complete the relevant light blue input cells in either the **Material Costs, Capital Equipment or Other Costs tab**. Given the anticipated desktop nature of work associated with production of the Feasibility Reports, this should include full justification for costs being claimed.

Appendix 5 – Monthly Project Update Report Example

Project Progress			
<i>Please provide a commentary on the work completed during this month. What milestones/key deliverables are you working towards? Include any technical achievements. If some of the work has been done by subcontractors, please make clear who did what.</i>			
RAG Status		Path to Green <i>Please include a summary of what actions have been taken or need to be taken for the project to be back on track.</i>	
Highlights			
<i>Please include any project highlights from this month providing a brief description.</i>			
Time			
<i>Please comment on whether you are on track to meet your goals. If your schedule has changed, please comment on the reasons for this and provide an updated schedule.</i>			
Cost			
<i>Do your costs match what you had forecasted? Please comment on reasons for spend variance if applicable.</i>			
Key Risks			
<i>Please provide a short summary of your key risks.</i>			

Deliverables

Please comment on the progress of the relevant deliverable(s) within this reporting period for each work package, whether this is in line with the most recently approved milestone schedule. For the avoidance of doubt, please provide itemised comments against each individual deliverable which has been worked on over the reporting period, or for which there has been a significant programme change using the table below. Additional rows/tables should be added as required.

Work Package 1						
What has been done in this reporting period <i>Discuss summary of progress as relevant to key activities – such as described in your WP description and aligned with the change in % progress you report against tasks below.</i>						
What will be done in coming reporting period <i>Discuss summary of work to commence in the next reporting period.</i>						
Deliverable ID	Description	Notes on Deliverables Progress	% Complete	Estimated completion date	Issues	Actions to be taken
	<i>Provide a brief summary of deliverable.</i>	<i>Please provide a concise update on progress against each deliverable, including an update on where specific deliverables have been delayed compared to the project schedule. Specify if completed.</i>	<i>Please provide a % complete value.</i>	<i>Please provide estimated completion data.</i>	<i>Please use this section to raise any issues that have arisen regarding this specific deliverable. Here you can include comments about the quality of the deliverable.</i>	<i>Please use this section to highlight any actions that need to be taken regarding specific deliverables.</i>

Risks and Issues

Risks

Please fill out the table below. Attach your risk register if available.

Include relevant risks from previous months.

Risk Title	Risk Event <i>Include description of event, its causes and impact.</i>	Mitigation Actions <i>Include action owner.</i>	Progress Update <i>Provide a brief progress update.</i>	RAG Rating	
				<i>Before mitigation</i>	<i>Current Risk</i>

Issues

Please fill out the table below. Attach your issue register if available.

Include relevant issues from previous months.

Issue Title	Issue Description <i>Include a description of the issue.</i>	Response <i>Include action owner and target date.</i>	Progress Update <i>Provide a brief progress update.</i>

Finance Update

Please provide an update on invoices. Here you should include all the invoices that were submitted in the last month, and all the invoices that are due in the next three months.

Payment milestone ID	Invoice Due Date	Invoice Status	Comment on the invoice status	Deliverables	Forecast Cost	Invoice Amount	FY Work Done
		<i>Select from on track, at risk, late, claim submitted.</i>	<i>Please provide a commentary on the status on the invoices.</i>	<i>Please provide a list of all deliverables relative to the invoice.</i>		<i>Please provide if the invoice has already been submitted.</i>	<i>Please select from FY 21/22, FY 22/23, FY 23/24, FY 24/25.</i>

Change Control

Please comment on whether there have been significant changes to the project. Are these within the agreed tolerance (5%)? Or will you need to complete a formal change request?

(copy table from the report of the previous month and add rows to add more changes)

Date <i>(Calendar date and relevant month)</i>	Description <i>Please describe the change.</i>	Within Tolerance level?	Type of Variance <i>Spend/time/scope.</i>	Value <i>Cost/time/or related milestone.</i>	Reason for Variance	Actions to be taken

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