



UK Research
and Innovation

Industrial Strategy Challenge Fund (ISCF) Evaluation pre-market engagement

24th June, 1400-1600



Agenda

1 Introductions

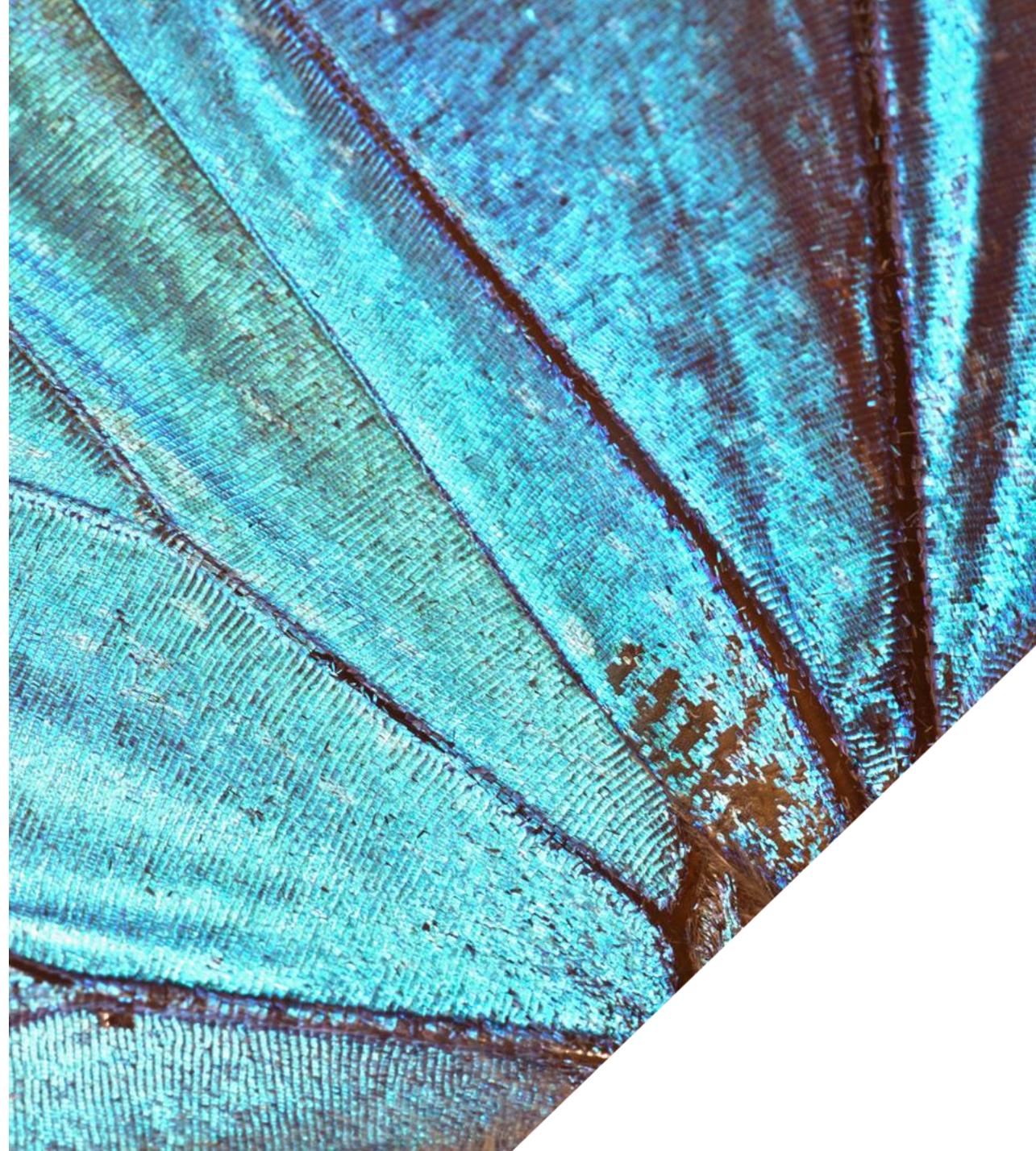
2 Overview of the ISCF

3 Evaluation Expectations

Coffee Break 5 minutes

4 Procurement Overview

5 Discussion



Introductions

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Innovate UK, UKRI

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ISCF Evaluation Lead
UKRI Analysis

[UK SBS rep]

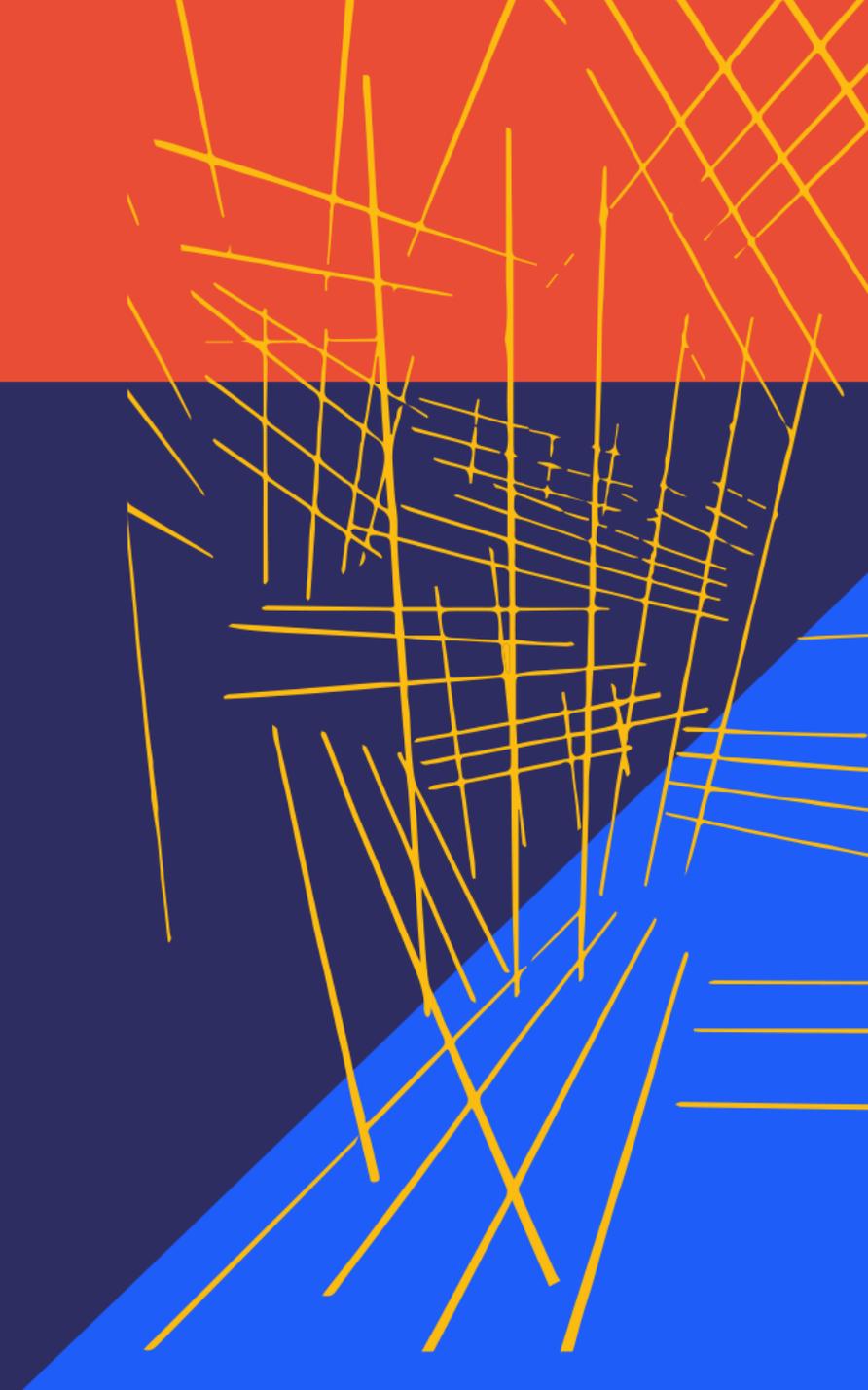
Category Manager – Research Procurement
UK Shared Business Services





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Overview of the ISCF



Introduction

- UK Research and Innovation (UKRI) is a non-departmental public body sponsored by the UK Department of Business, Energy and Industrial Strategy. UKRI funds and works in partnerships with universities, research organisations, businesses, charities, and government to create the best possible environment for research and innovation to flourish.
- The Industrial Strategy Challenge Fund (ISCF) is a flagship programme of UKRI and is part of the UK's National Productivity Investment Fund (NPIF).
- The ISCF is a mission-oriented* innovation funding programme that brings research and innovation to solve the major industrial and societal challenges facing the UK.

Overview of the ISCF

- The ISCF consists of 22 programmes that are called Challenges, three non-Challenge programmes and some blue list investments (Wave 1a). The ISCF currently has a combined total of £2.6bn in Government funding and are delivered through multiple Waves (1-3)
- The Challenges are delivered with a combination of research (funded through UKRI Research Councils) and business focussed, competitive innovations (funded through UKRI Innovate UK) to develop UK industry-led solutions in challenge areas.
- The ISCF has borrowed from the US Defence Advanced Research Projects Agency (DARPA) model by placing the responsibility for delivering a 'Challenge' in the hands of a 'Challenge Director'. Challenge Directors are leading experts in the area and will coordinate across different delivery organisations to make the Challenge a success.
- The ISCF supports the broader Industrial Strategy policies including the Grand Challenges (i.e. ageing society, clean energy, artificial intelligence and future of mobility) and Sector Deals.

The ISCF objectives

- The ISCF has five overarching objectives:
 - Increase UK businesses' investment in R&D and improve R&D capability and capacity.
 - Increase multi- and interdisciplinary research around the challenge areas.
 - Increase business-academic engagement on innovation activities relating to the challenge areas.
 - Increase collaboration between younger, smaller companies and larger, more established companies up the value chain.
 - Increase overseas investment in R&D in the UK
- Individual Challenges also have Challenge specific objectives which align with the overarching objectives.

ISCF Challenges and alignment (Wave 1b-2)

| Grand Challenge | Artificial Intelligence & Data | Ageing Society | Clean Growth | Future of Mobility | Other |
|------------------|---|--|---|--|--|
| ISCF Wave | | | | | |
| Wave 1b | Robotics and Artificial Intelligence in Extreme Environment [Sector Deal: AI & Nuclear] | Medicines Manufacturing [Sector Deal: Life Science] | | Faraday Battery Challenge Self-driving Vehicles | National Satellite Test Facility Next Generation Aero Materials |
| Wave 2 | Data to Early Diagnosis and Precision Medicine [Sector Deal: Life Sciences] Next Generation Services [Sector Deal: AI] Quantum Technologies | Healthy Ageing | Prospering from the Energy Revolution Transforming Construction [Sector Deal: Construction] Transforming Food Production | | Audience of the Future [Sector Deal: Creative Industries] |

ISCF Challenges and alignment continued

| Grand Challenge | Artificial Intelligence & Data | Ageing Society | Clean Growth | Future of Mobility | Other |
|------------------|---|----------------|---|---|-------|
| ISCF Wave | | | | | |
| Wave 3 | Accelerating Detection of Disease [Sector Deal: Life Science] Commercialising Quantum Technologies Digital Security by Design Manufacturing Made Smarter [Sector Deal: Life Science, Auto, Aero and construction] | | Industrial Decarbonisation Transforming Food Industries Smart Sustainable Plastic Packaging Low Cost Nuclear | Driving the Electric Revolution [Sector Deal: Auto] Future Flight | |
| Wave 1a | These are fast start projects that were funded prior to Wave 1b and are not delivered through the Challenge-led approach. It should be noted the Creative Clusters programme (Wave 1a) however is closely aligned with the Wave 2 Audience of the Future programme. Both programmes are being evaluated independently as two separate programmes. | | | | |



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Evaluation expectations



Purpose of the evaluation

- To build an evidence base to assess the success and overall impact of the Industrial Strategy Challenge Fund in order to:
 - inform ongoing and future improvements to the ISCF to maximise the value of public funding
 - to demonstrate the return on investment to taxpayers
 - build the evidence base on the impact of mission-oriented and Challenge-focused R&I support as part of UKRI's wider efforts to understand 'what works' in R&I policy and delivery.

Overview of the evaluation requirements

- This evaluation requires both process and impact evaluation of the ISCF. The evaluation questions for three different audiences and purposes have been developed and are detailed in the specification.
- This evaluation requires **multi-disciplinary** and **multi-sector** expertise. Hence bidders should demonstrate these or propose strategies to access the expertise (including forming a consortium) in order to deliver this evaluation.

| Type | Audience | Purpose |
|---|---------------|--|
| Appropriateness – process evaluation questions | UKRI and BEIS | To understand whether the approach of the ISCF ‘worked’, to help UKRI to learn lessons for the future (i.e. challenge-led approach, funding approach, mission-orientated approach, governance & operations) |
| Effectiveness - impact evaluation questions | HMT and BEIS | To understand to what extent the ISCF: <ul style="list-style-type: none">- meets its objectives- demonstrates accountability (including for broader purposes such as spending review and audit)- support government priorities |
| | Tax payers | <ul style="list-style-type: none">- To understand the wider impact of the ISCF in terms of knowledge, society and economy- To demonstrate the return to the tax payer and understand if ISCF represents value for money |

Scope and existing work

- All the ISCF Challenges will have independently commissioned evaluations available near the end of programme.
- This evaluation is at the portfolio-level and requires the use of both challenge-level evaluation evidence and additional evidence as required.

ISCF-wide evaluation

Challenge A
evaluation

Challenge B
evaluation

Challenge C
evaluation

...

Project
A1

Project
A2

Project
A3

Project
B1

Project
B2

Project
B3

Project
C1

Project
C2

...

Data / evidence provision

Example data collected at Challenge-level:

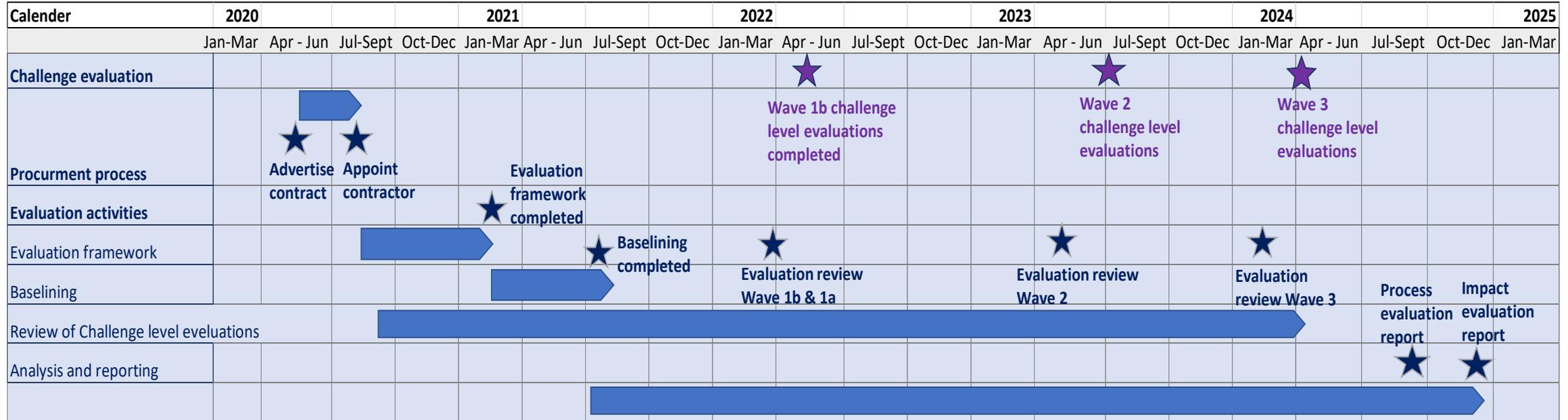
- No. of acad. publications/other outputs by discipline, geog. and HEI
- TRL & MRL levels associated with on-going R&D projects
- Increased value of R&D investments for sub-sector specific to the Challenge
- Number of new partnerships for participating enterprises, organisation and researchers

Evaluation phase and deliverables

| Phase* | Purpose and key aspects |
|---|---|
| 1. Evaluation framework development (Feb 2021) | To set out evaluation approach in detail, including data collection and analysis methods. Key aspects include: <ul style="list-style-type: none">- Literature review on mission orientated R&D policy- Scope of evaluation, way(s) to segment and sum up challenge-level evaluation- Primary data research and analysis on broader research questions such as productivity lift- Project plan |
| 2. Baseline measurement (Aug 2021) | To establish baseline to be used as counterfactual of ISCF impacts |
| 3. Review Challenge level evaluation findings (2022-2024) | To review the Challenge-level evaluation findings, to identify any key gaps in findings or data in order to answer the impact and process evaluations questions in Phase 4. The gaps are likely to include additional primary or secondary research |
| 4. Analysis and reporting (Dec 2024) | To produce process and impact evaluation findings by answering the proposed evaluation questions |

Timeline and budget

Timeline & approach



Budget: Expected £500K (excl. VAT) with a possibility to go up to £750K (excl VAT)

Coffee break 5 minutes



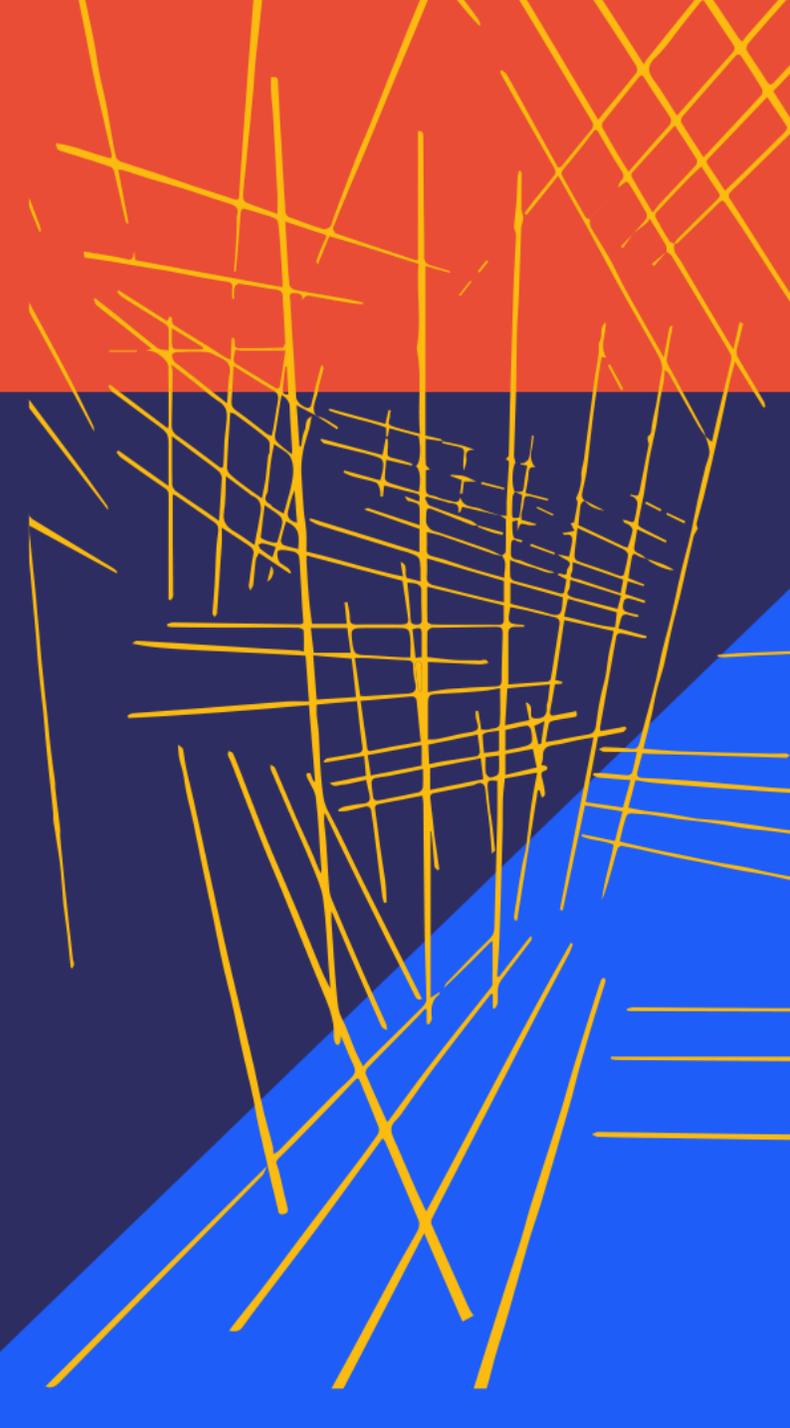
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Procurement overview & Next steps



Timescales

| Procurement process | Week commencing in 2020 |
|--|--|
| Pre-market engagement event | 22 nd June 2020 (event 24 th June) |
| Issue of competition to all bidders | 29 th June 2020 |
| Deadline for clarification questions | 20 th July (week 4 of tender) 2020 |
| Deadline for Bid to be submitted through Delta | 17 th August 2020 |
| Selection and de-selection of Bids | 24 th August – 11 th Sept (tbc) 2020 |
| Anticipated Award Date | 14 th Sept 2020 (tbc) |
| Anticipated Contract start date | 5 th Oct 2020 |
| Anticipated Contract end date | December 2024 |



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Questions?





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Thank you



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