





UK Space Agency

Growing Your Business & Space Services 'Secure by Design'









Towards a Safe and Secure Space Sector

Fiona Stone, Head of CNI & the Space resilience programme



- 1. Risks facing the Space industry and Space services
- 2. How the UK Space Agency can help
- 3. Your responsibilities



What are the threats?

(Cyber and physical attacks)
Espionage
Sabotage



Between July 2015 and February 2019, three Iranian hackers impersonated US citizens working in the satellite and aerospace fields, registering several email addresses in the names of targeted individuals, and fraudulently purchased various domains and hacking tools.

Using these methods, the hackers successfully compromised multiple victim networks, resulting in the theft of sensitive commercial information, intellectual property, and personal data from victim companies, including a satellite-tracking company and a satellite voice and data communication company.

They possessed a target list of over 1,800 online accounts, including accounts belonging to organisations and companies involved in aerospace or satellite technology in Australia, Israel, Singapore, the United States, and the United Kingdom.



In 2021, a senior NASA scientist pleaded guilty to lying about his ties to a program that encourages researchers to develop relationships with China in exchange for grants.

Meyya Meyyappan participated in the Thousand Talents Program, a Chinese government program to recruit people familiar with foreign technology and intellectual property. Meyyappan held a trusted

position at NASA, with access to valuable intellectual property.

In the four years up to May 2021 cyber bad actors hit NASA with more than 6,000 attacks. Incidents were perpetrated by a range of insiders, third-parties and nation-states where the attackers successfully introduced malware into agency systems.

Included in these was the event in 2019 where two Chinese nationals, members of a hacking group operating in China, were indicted on criminal charges for gaining unauthorised access to a NASA computer to steal data and in 2018 where an account belonging to an external user was compromised and used to steal approximately 500 megabytes of data from a major mission system.



In February 2022 there was a multifaceted and deliberate attack against Viasat's satellite network resulting in a partial interruption of their satellite broadband service. Military, government and public communications were affected by the incident, impacting several thousand customers located in Ukraine and tens of thousands of other fixed broadband customers across Europe.

Western intelligence agencies placed a Russian state-backed group at the heart of hacking incident with direct intent to cause disruption to the ongoing conflict.



Everyone needs to protect assets and services from adversaries, incorporating Secure by Design principles as projects, processes and systems are developed.

Demonstrating a commitment to security is critical to the ongoing success of any business. Ensuring secure, robust and recoverable services and services can provide a competitive advantage in the marketplace and avoid unnecessary costly retrofitting.



Any questions?

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Exotopic

Defining Economic & Societal Benefits of Your Business







SOCIAL AND

ENVIRONMENTAL BENEFITS

OF YOUR BUSINESS



GovBridge Bootcamp, October 9

Rob Adlard







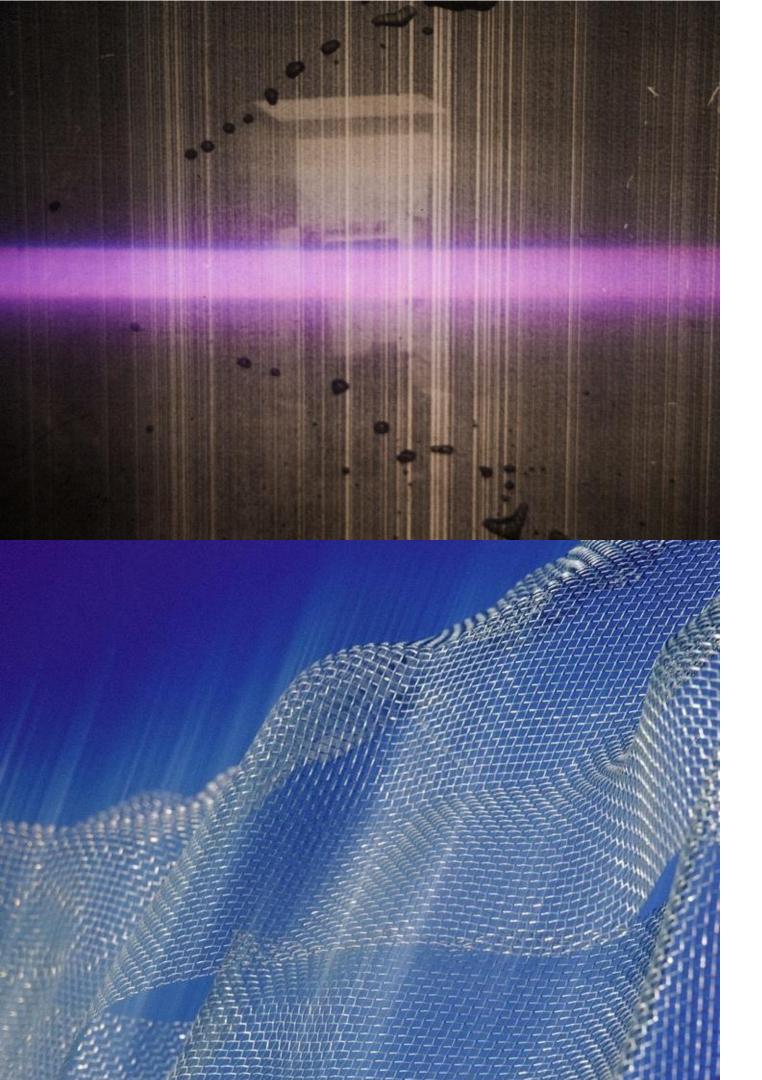












Session Outline



O1 Introduction to the Social Value
The Act and Social Value Model

Easy Wins and How to Score Well

O3 Action Plan
Self-assessment now; track your progress by
the end of the programme







O1 Introduction to Social Value





Social Value Act 2012 L

Social Value Model

- New guidance from 2021 applies to all public tenders
- Minimum of 10% scoring









2. Background – what lies behind

United Nations Sustainable Development Goals

Goal 1: No poverty

Goal 3: Good health and wellbeing

Goal 4: Quality education

Goal 5: Gender equality

Goal 8: Decent work and economic growth

Goal 9: Industry, innovation and infrastructure

Goal 10: Reduced inequalities

Goal 11: Sustainable cities and communities

Goal 12: Responsible consumption and production







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SOCIAL VALUE MODEL

5 Themes 8 Policy Outcomes, underpinned by 24 Model Award Criteria (MAC)

- Covid Recovery (pending update)
 - Help local communities to manage and recover from the impact of COVID-19
- Tackling Economic Inequality
 - Create new businesses, new jobs and new skills
 - Increase supply chain resilience and capacity
- Fighting Climate Change
 - Effective stewardship of the environment
- Equal Opportunities
 - Reduce the disability employment gap
 - Tackle workforce inequality
- Wellbeing
 - Improve health and wellbeing
 - Improve community integration









SOCIAL VALUE MODEL (Themes)

- 1.COVID 19
- 2. Tackling economic inequality
- 3. Fighting climate change
- 4. Equal opportunity
- 5. Wellbeing









Example

No 2. Tackling Economic Inequality

Social Value	Requirement	Objective
SR019 Tackling inequality	Supplier must demonstrate how they: Support entrepreneurship and create diverse supply chains	The awarded supplier would be expected to promote and highlight through monthly/quarterly reporting engagement activities for potential new suppliers to the contract supply chain — by advertising upcoming opportunities and raising awareness of future
	Relates to Method Statement	opportunities to target audiences. The supplier would report on the number of engagement activities, number of advertised opportunities and number of suppliers onboarded through these activities.









The Policy Outcomes Are Considered

2 of the 8 Policy Outcomes

- Create new businesses, new jobs and new skills
- Increase supply chain resilience and capacity



Model Award Criteria



Sub-Criteria for Assessment









Policy Outcome: Create new businesses, new jobs and new skills

Model Award Criteria

- MAC2.1: Create opportunities for entrepreneurship and help new organisations to grow, supporting economic growth and business creation
- MAC2.2: Create employment and training opportunities
 particularly for those who face barriers to employment and/or
 who are located in deprived areas, and for people in industries
 with known skills shortages or in high growth sectors
- MAC2.3: Support educational attainment relevant to the contract, including training schemes that address skills gaps and result in recognised qualifications.









Policy Outcome: Create new businesses, new jobs and new skills

Response Sub-Criteria

MAC 2.1: Entrepreneurship, growth and business creation

MAC 2.2: Employment

MAC 2.3: Education and training

Reporting Metrics

- FTE jobs created
- Apprenticeships created or retained
- Training opportunities created or retained
- People-hours of learning interventions







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Policy Outcome: Create new businesses, new jobs and new skills

Response Sub-Criteria

MAC 2.1: Entrepreneurship, growth and business creation

Activities that demonstrate and describe the tenderer's existing or planned:

- Understanding of the level of Small, Medium and Large organisations and Voluntary community and Social Enterprises and Mutuals participation in the contract supply chain.
- Identification of opportunities to grow supplier diversity in the contract supply chain or in the location/community where the contract is
 performed, including SME and VCSE participation and new business creation.
- Engagement activities for potential new suppliers to the contract supply chain, prior to awarding subcontracts. Illustrative examples: advertising upcoming opportunities in accessible media; raising awareness of future opportunities to target audiences; meet the buyer events; awareness raising by guidance or events of how to tender effectively for public supply chain contracts.
- Measures to make the supply chain working environment conducive to a diverse range of suppliers and growing businesses, including but not limited to:
- structuring the supply chain selection process in a way that ensures fairness (e.g. anti-corruption) and encourages participation by new and growing businesses.
- advertising supply chain opportunities openly and to ensure they are accessible to new and growing businesses, including advertising subcontracting opportunities on Contracts Finder.
- ensuring accessibility for disabled business owners and employees.
- prompt payment.
- Illustrative examples: co-design and co-creation of services; collaborative performance management; appropriate commercial arrangements; inclusive working methods and use of inclusive technology; creating opportunities for entrepreneurship and helping new, small organisations to grow.









O2 Easy Wins & How To Score Well





How Can SME's Compete?







Small change, big impact

Agile and fastmoving **Local and Connected**







Relevant and Proportionate

Slow start – Big finish

Focused on the future and not on the past

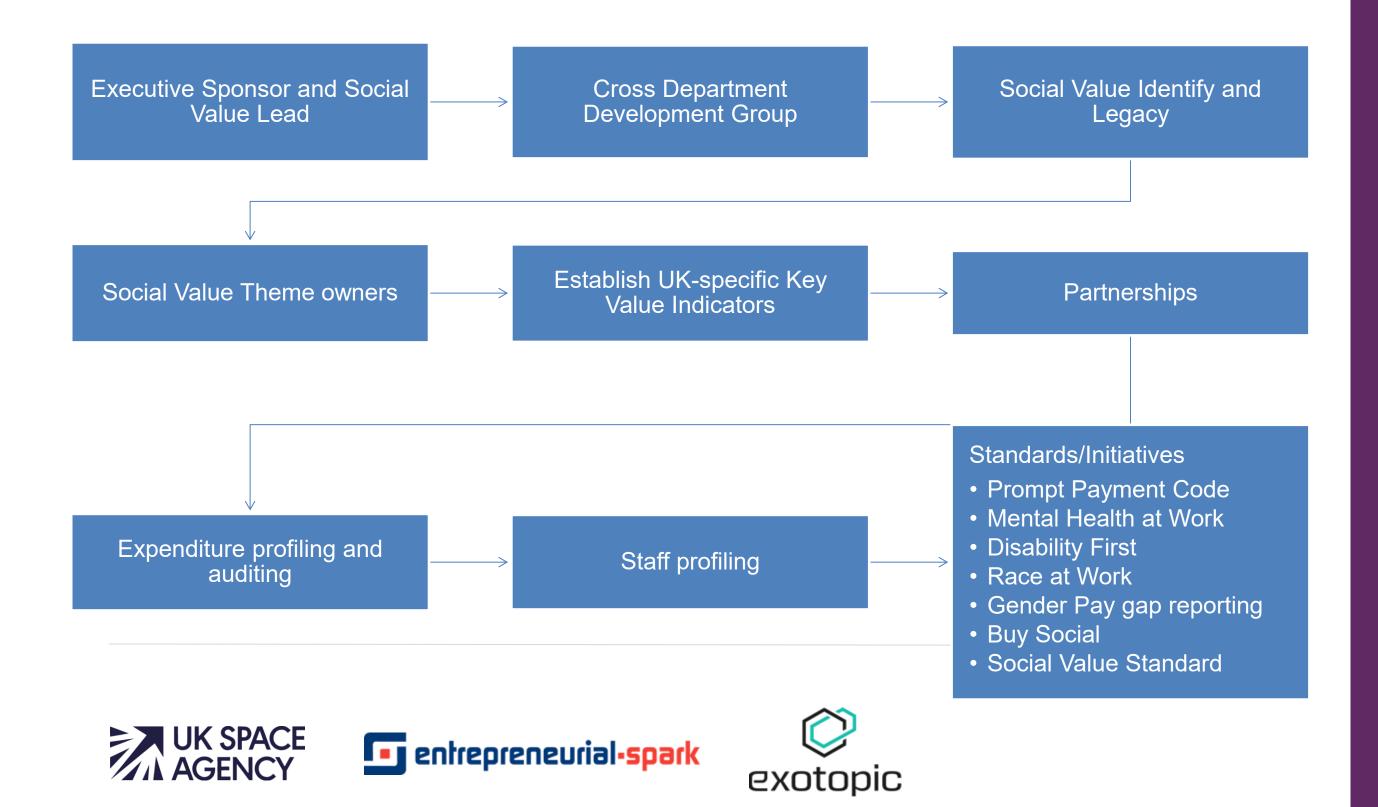






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Quick Wins





Prepare Your Method Statement

- 'Method Statement', stating how you will achieve this and how your commitment meets the Award Criteria.
- How will you manage your performance, including under performance and partners.
- A timed project plan and process, including how you will implement your commitment and by when
- How you will monitor, measure and report on your commitments/the impact of your proposals.
 - timed action plan
 - use of metrics
 - tools/processes used to gather data
 - reporting
 - feedback and improvement
 - transparency







UK SPACE AGENCY ACCELERATOR



Crown Commercial Service

Space Technology Solutions













GovBridge Presentation

Crown Commercial Service (CCS)

- CCS is the UK's biggest public procurement organisation and an executive agency of the Cabinet Office.
- With our expertise, we can help public sector customers:
 - stay compliant with procurement regulations
 - save time
 - get better value for money
 - reach social value goals
- In 2023/24, our customers achieved commercial benefits equal to £4.9 billion
- Our Priorities:

Maximising commercial benefits

Focused on customers

Strengthening the UK economy through effective policy implementation

RM6235

Space Enabled & Geospatial Services

Sat Comms

- Voice & Data Services
- •PNT
- Broadcast

UAV

- Short Range/Low Payload
- Long Range/ Heavy Payload

Geospatial & Remote Sensing

- Geospatial
- Locational Data
- Earth Observation (RAR & SAR)
- Data Services

Professional Services (Launch & Manufacture)

- Satellites
- Spaceports/Space Operations
- Launch Facilities/Services
- Propulsion Systems
- Antennas
- Hardware
- Software
- Subsystems

RM6370 Space Technology Solutions

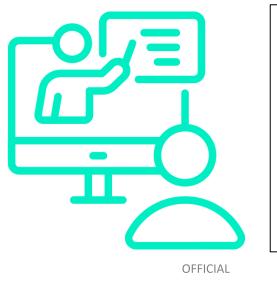


Take the opportunity to get involved in pre tender market engagement

- bookmark the <u>CCS upcoming agreements page</u>
- get involved in <u>pre tender market engagement</u> to:
 - understand needs and requirements
 - challenge assumptions and help shape the scope
 - raise any concerns re what is proposed and potential barriers to bidding
 - make suggestions about the innovation you can offer
 - ask questions
- read slides and Q&A issued after each PTME session, even if you couldn't attend

Boost your understanding of what's required

- take up offers of supplier 121s from the contracting authority's commercial team
- refer to guidance and training links provided by the contracting authority that explain the procurement policy notes that apply to each tender
- pose clarification questions during the clarification period when the tender first opens to clarify anything that isn't clear



Top tip: Review the terms and conditions early to ensure you have sufficient time to pose any clarification questions you may have

Refer to guidance and training

- refer to guidance and training links provided by the contracting authority that explain the applicable procurement policy notes (PPNs) e.g.
 - PPN 02/23 Tackling Modern Slavery in Government Supply Chains and Information and Guidance on the Modern Slavery Act
 - PPN 06/20 taking account of social value in the award of central government contracts and Information and guidance on the Social Value Act
 - EFS and FVRA guidance and the FVRA tool and the Sourcing Playbook
 - PPN 10/23 Prompt Payment Guidance
- look out for CCS' supplier specifics series of articles that guide you through PPNs and provide top tips for success

Refer to guidance and training cont'd

- <u>CCS Carbon Reduction Plan Training for Suppliers</u> on measuring emissions and implementing solutions
- Annex A of the official publication of PPN 06/21 includes a CRP template. This gives a clear framework to help lay out your plans and save you time
- Carbon Calculator

The Cabinet Office resources for meeting CRP standards:

- specific guidance for adopting and applying the requirements and the criteria used to judge compliance in the procurement process
- further information on the standard of carbon emissions data required as part of the plan
- answers to some of the most common questions posed about CRP requirements

Plan ahead

- plan who needs to be involved in responding and when they will be available
- plan enough time to submit your tender to reduce last minute panic
- plan to upload your tender to the required e platform well before the deadline
- plan availability post tender submission to answer any CCS clarification questions
- ensure you respond in a timely manner, adhering to deadlines



Top tip: understand how CCS will request any additional information and which mailboxes to monitor

Break down the ask

example requirement:

"Please provide your strategy for sourcing and recruiting subcontractors and for ensuring that you can effectively monitor, measure and exercise executive control"

- you should respond by providing your strategy for:
 - sourcing subcontractors
 - recruiting subcontractors
 - ensuring effective monitoring
 - ensuring effective measuring
 - exercising executive control



Top tip: You MUST address every aspect of the response guidance or you will lose marks

Structure your response

- use spacing, headings and bullets to guide
- adhere to the character and word limits
- if there are no bullet points in the question, break down the different elements of the question to help structure your answer in a reader friendly way
- address each of the points in the same order as they appear within the question



Top tip: make evaluators' lives easier by structuring your response logically and clearly

Ensure legibility

- keep sentences and paragraphs short
- make every word count e.g. use
 - 'enough' instead of 'a sufficient amount of'; '
 - 'is' instead of 'has been proved to be'
- don't waste words addressing points that aren't in the response guidance of the question or the relevant part of the specification



Top tip: each component part of a question should link to the relevant part of the specification

Use firm, positive language that shows your commitment to your proposal:

- 'we will' instead of 'we could'
- 'we know' instead of 'we believe'
- 'we have' or 'we know' instead of 'we aspire to'
- 'we will meet' instead of 'we aim to'

Consider your reader and be clear

- don't assume prior knowledge and ensure you explain key concepts
- minimise use of jargons and acronyms evaluators need context for understanding



'Our hand-held petrol chainsaw has a 50cc engine, operating at 9000 RPMs, with an 18 inch bar, and a power output of 3.4kw.'

'Our chainsaw is easy to start, has great safety features, an easy to replace chain, and is ideal for cutting large trees with a diameter of 10 to 20 inches.'

Understand that some duplication may be required

- the same evaluators may not score every question, so some repetition of core content may be required
- don't refer to your website or external links. Unless attachments are permitted,
 evaluators can only review the responses in the text boxes

Ensure you proof read your responses before submitting. Check you have:

- fully addressed each of the component parts and the requirement of each of the award questions and aspects of the specification referred to within the question
- explained your proposition clearly
- addressed the "how" as well as the "what"
- provided relevant evidence where requested to demonstrate a competency



Top tip: Cite evidence in your bid. If you say your system will show or do something, prove it: include a screen shot of how it works or other tangible evidence



Frazer Nash Consultancy

Business Development Plan Insights









Creating a Business Development Plan for Defence

Business Manager, Defence Space – Frazer-Nash Consultancy

Agenda



- 1. Introduction
- 2. Aims of the Session
- 3. Understanding the market
- 4. Creating an opportunity pipeline
- 5. Creating a plan and measuring success
- 6. Investment

Introduction



Who am I? Why am I talking to you today?

Frazer-Nash and space



Aims of the Session



How to assess the market

How to create an opportunity pipeline

What investment options there are

How to measure success

Every business
development plan will
look different – these
are tools that can help
you to create yours



Understanding the Market





The big context



Customers, funding and procurement



Total vs. addressable market



Creating an Opportunity Pipeline



GO

Early discussion and intelligence gathering

Intended opportunity – 'Capture'

Live opportunity **GET**

What is the 'PWin'

Track record (including partners)

Assessing the competition

Creating a plan and measuring success



Scope and objectives (short and medium term)

SWOT

Plan for Growth – engagement, offering

Responsibilities and resource requirements

Profile and Publicity

Action log

Investment



Some things to consider:

- Percentage of pipeline
- Dedicated resource
- Timescales
- Bidding can be expensive
- Conferences and events attendance/exhibition/travel
- Need to be flexible





Government Digital Service

Introduction to Strategic Command Opportunities











Strategic Command, Defence Digital and SKYNET 6

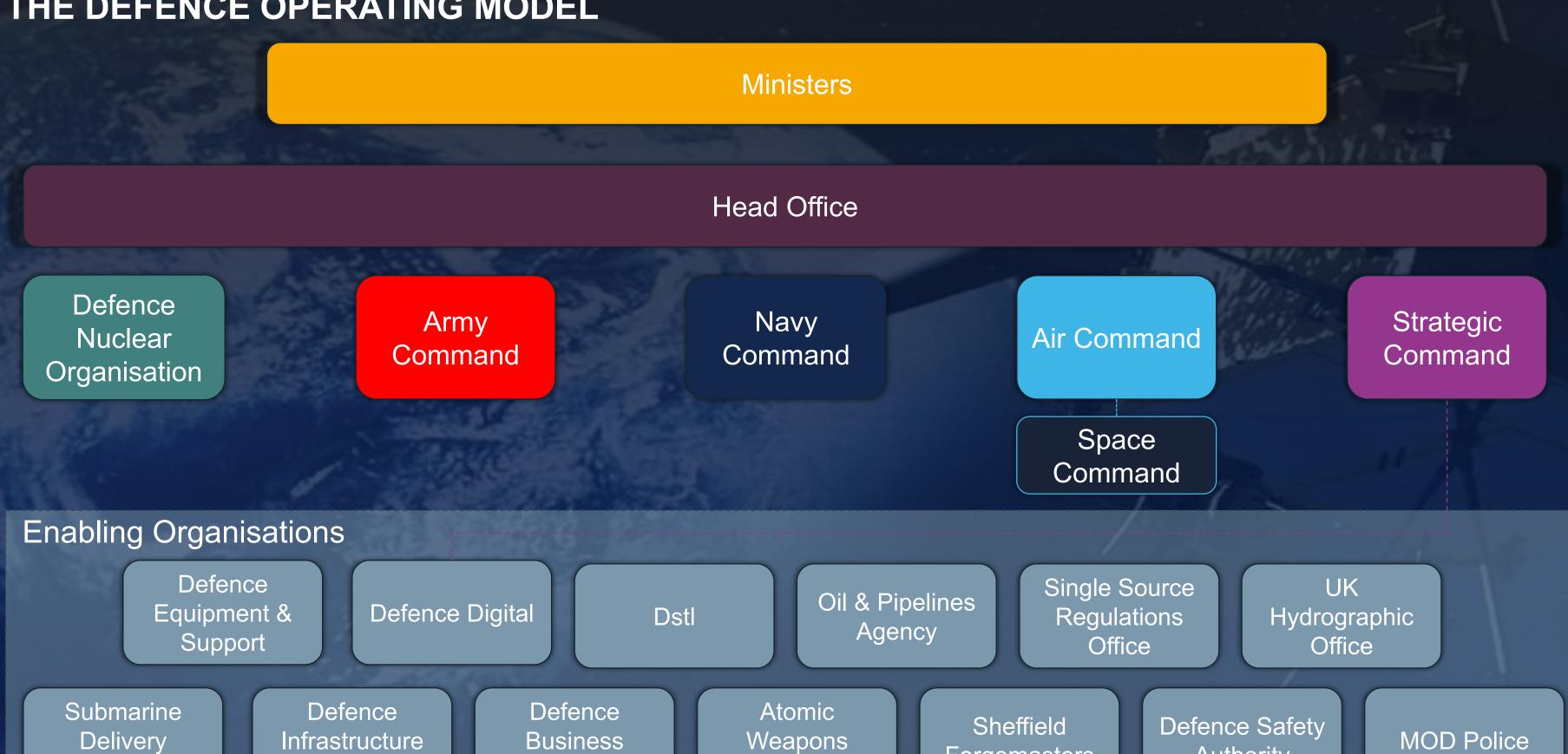
Topics

- 1 The Defence Operating Model & Procurement
- 2 Strategic Command & Defence Digital
- 3 Capability Requirement Generation
- 4 SKYNET and Space Priorities for Defence
- 5 Enterprise Space Category





THE DEFENCE OPERATING MODEL



Agency

Organisation

Services

Establishment

Forgemasters

Authority



STRATEGIC COMMAND

- ☐ Acts as Capability Sponsor and Integrated User for joint and enabling strategic military capabilities.
 - l. Develop, Deliver and Generate joint strategic war-fighting capabilities.
 - II. Lead Development and Generation of an Integrated Joint Force.
 - III. Lead on the Cyber Domain for Defence.
 - IV. Take responsibility for strategic and operational integration across the five warfighting domains.

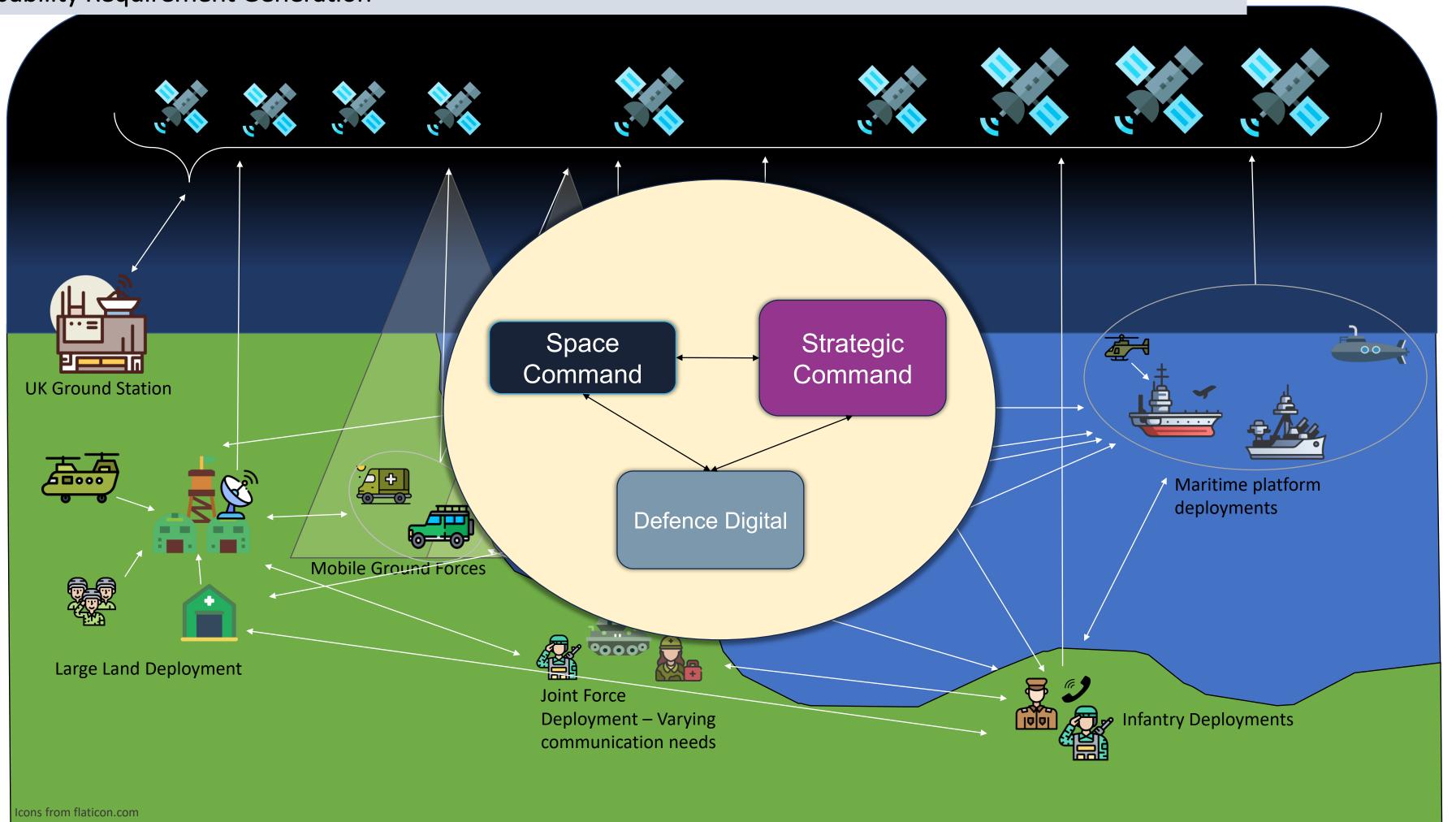


DEFENCE DIGITAL

- ☐ Enabling organisation for the delivery of Digital services and capabilities.
 - I. Provides direction and coherence in development and exploitation of Digital technologies for Defence.
 - II. Primary delivery agent for Defence core digital systems and services (c.£2bn-£3bn annual spend).

Digital Categories Space Networks Hardware & Software Services Services

Capability Requirement Generation



SPACE Segment

design life.

Space Segment c. 30% of SK6 programme Whole Life Cost

SKYNET 5 ('*AS-IS*')

- Capability consists of 4 satellites (5A-5D).
- Super High Frequency (SHF) strategic long haul communications.
- Ultra High Frequency (UHF) tactical communications.
- 3 out of 4 SK5 satellites are beyond the original 12-year

SKYNET 6A ('INTERIM')

• SK6A contract with Airbus Defence and Space (ADS)

SK6A satellite will **mitigate** UK SatCom capability decline by providing **replacement services** as 5A and 5B retire/fail.

SKYNET Enduring Capability (EC) ('*TO-BE*')

• • • EC stage

• 1 single-payload UHF satellite (NSS).

Under development

• Up to 3 dual-payload wideband satellites (WSS).

Remaining SKYNET 4 satellites provide limited capability whilst occupying UK SatCom satellite filings.

Target PASE Target PASE Target PASE Target PASE NSS WSS PASE 2028-2030 WSS PASE 2028-2030 WSS PASE 2028-2030 SCALABLE PROGRAMME TO MEET INCREASING DEMAND AS IT ARISES TARGET PASE SCALABLE PROGRAMME TO MEET INCREASING DEMAND AS IT ARISES





- NATO Critical Satcom Services MOU
- 3rd Party Sales
- Maintenance of critical UK military capability

 International collaboration and enhancement to MOD's reputation.

GROUND & SERVICES Segment

SKYNET GROUND & SERVICE SEGMENT SKYNET 5 ('AS-WAS')

- Since 2003, Service Delivery arrangements were provided under the PFI with Airbus.
- PFI expired on 31 Aug 2022.

SKYNET Service Continuity Contract ('BRIDGE')

- SSCC ensured continuity of SATCOM service from Sep 2022 to Apr 2024.
- SKYNET Service Delivery Wrap (SDW) ('TRANSITION')
- SDW continues provision of space
 Awarded Mar 23 for a 6-year operations and ground duration.
 infrastructure post-SSCC.

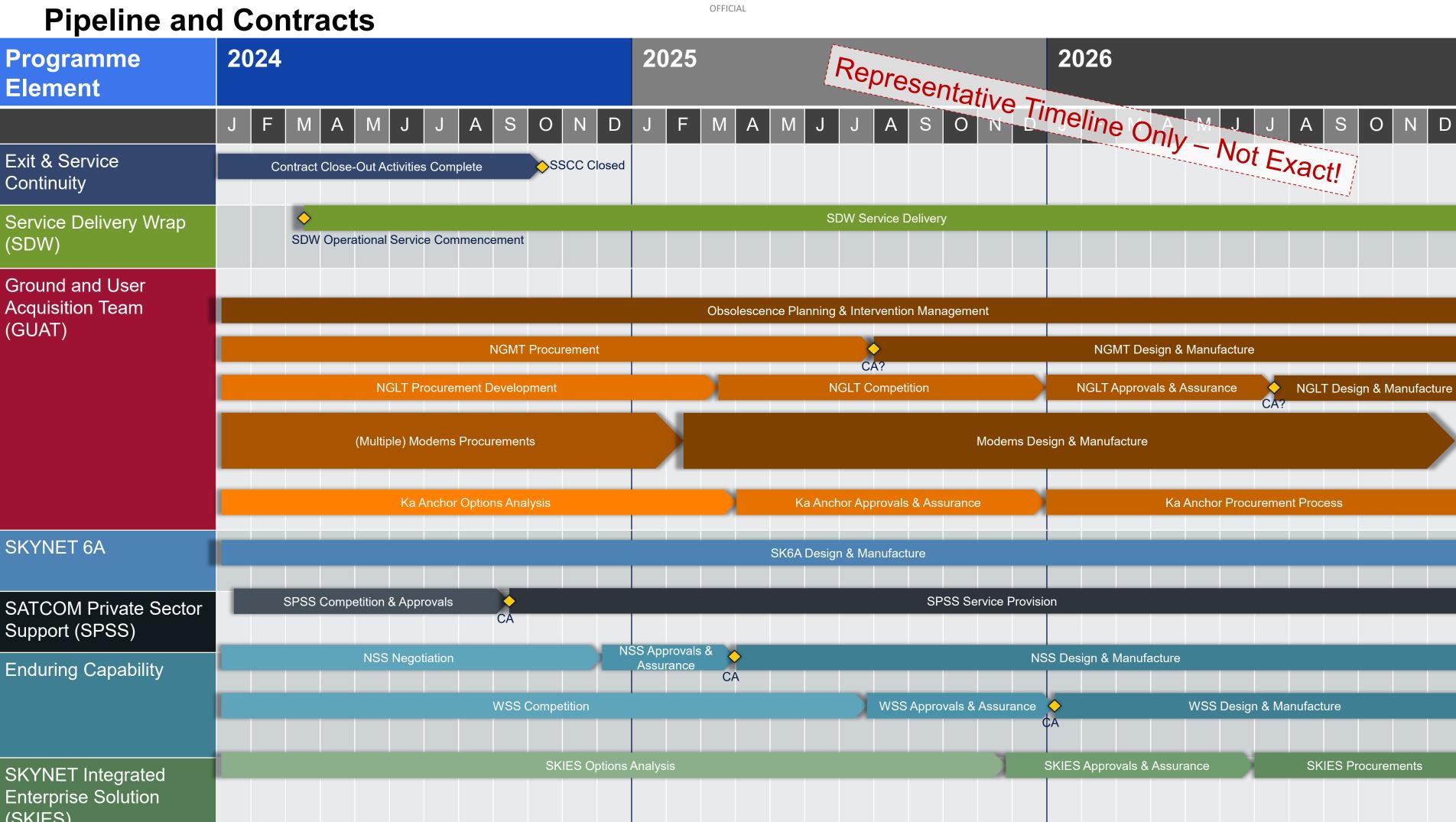
SKYNET Integrated Enterprise Solution (SKIES) (*'TO-BE'*).

• **SKIES** is establishing a future collaborative Operating Model with industry to deliver the SATCOM programme into the 2030s.

Phase 1 – System & Service Integrator

Phase 2 – Ground & User Acquisition Team (GUAT). Upgrades to existing core ground infrastructure, and introduction of next generation capabilities to user segment (FPM, NGMT, NGLT)

Ground & Service Segment c. 70% of SK6 programme Whole Life Cost



Supply Chain Priorities





Defence Space Strategy:

Operationalising the Space Domain

February 2022





The National Space Strategy in Action





Space Industrial Plan

From ambition to action – advancing UK Space Industry

Defence in Space – Key Areas of Focus



Secure SATCOM



Navigation & **Timing**



Observation



Space Domain Awareness



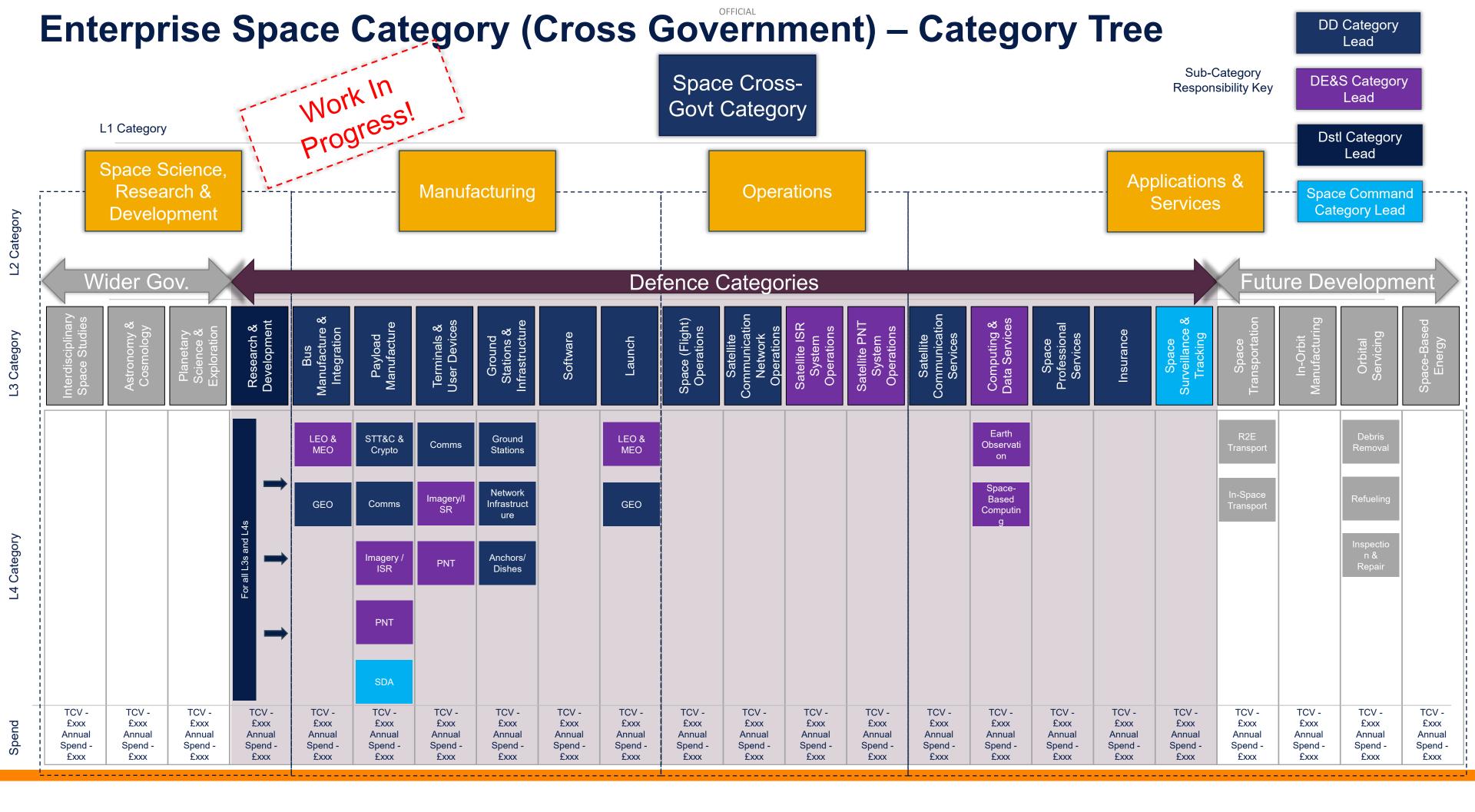
Launch



Space C2



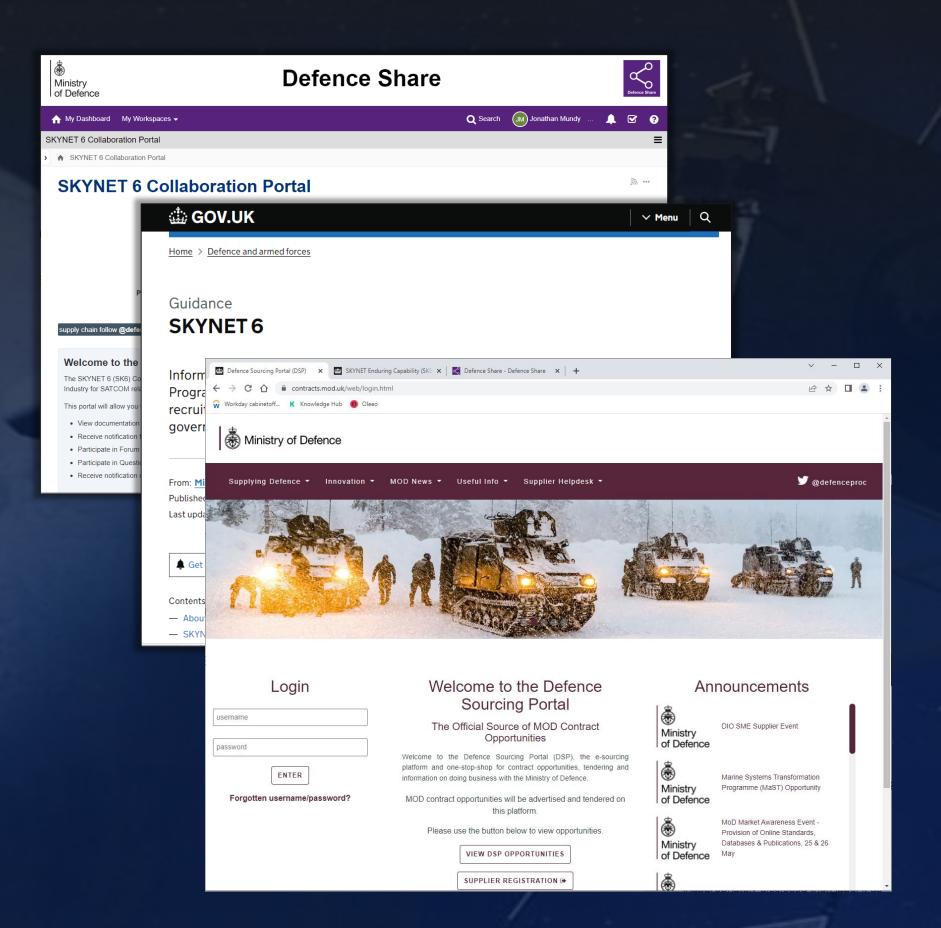
Space Control





Communication Methods

- The Defence Sourcing Portal (DSP) is the primary method of engaging with industry.
- Industry Days, Round Tables etc. will be announced on DSP, as well as Contracts Finder.
- We also use Defence Share for sharing information with industry up to Official-Sensitive.
- See gov.uk for more general information on SKYNET
 6.

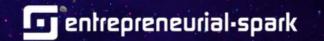




Exotopic

MoD Portal Practicalities







In principle, tendering aspects of MOD procurement is very straight forward.

- Defence has to align with government drive for transparency and accessibility expected of public procurement
- As a result, new direct tender and contract opportunities valued over £10,000 are required to be listed on the main MOD procurement portal
- Accessible to any size of company

That sounds easy.... Right?











Main Portal: Defence Sourcing Portal www.contracts.mod.uk

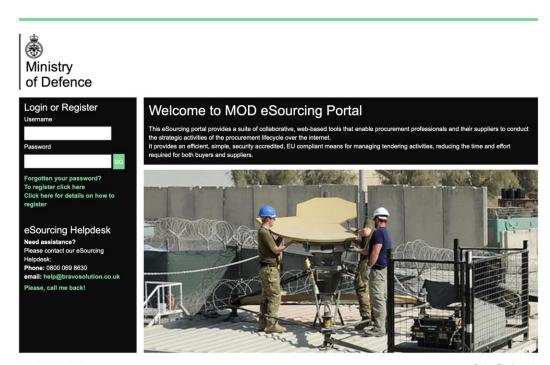
Portal summary

- Went live 15 Feb 2021
- All public opportunities valued over £10,000
- Requires one-time registration as long as you have some key requirements in place
 - Company registration
 - DUNS number (Dun & Bradstreet)
 - Cyber Essentials (more on this later)
 - •



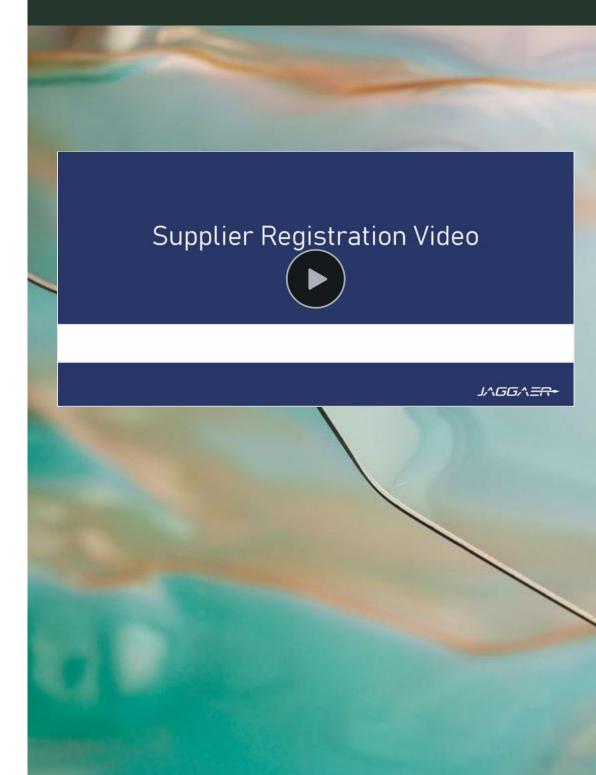


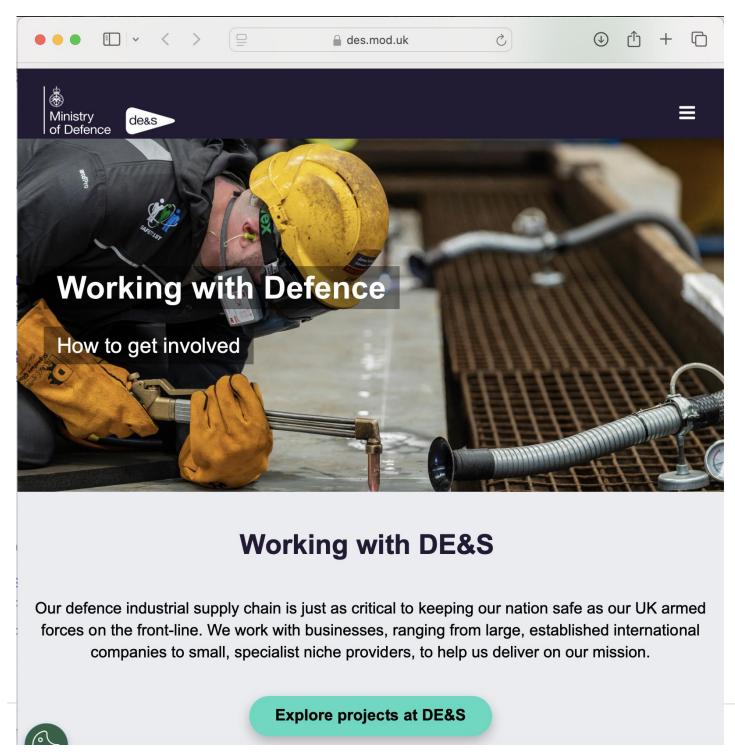




System Requirements







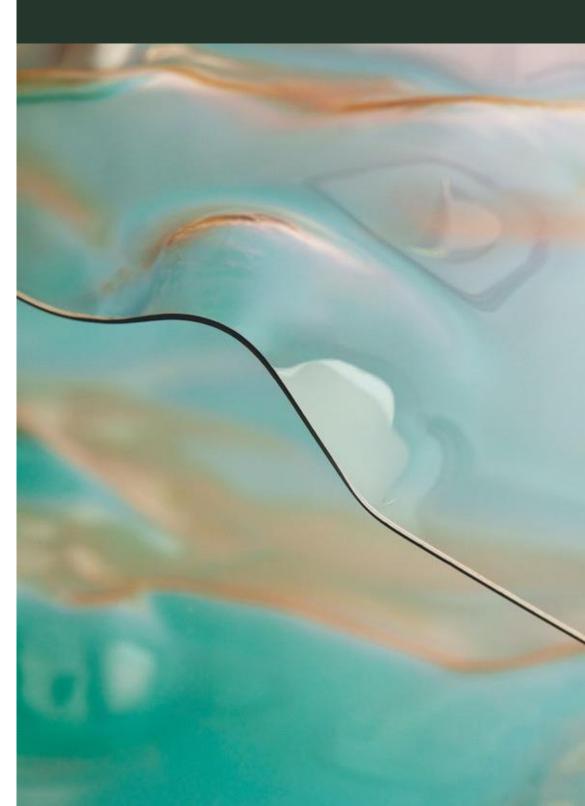
DE&S (Defence Equipment and Support) tells you how to work with them

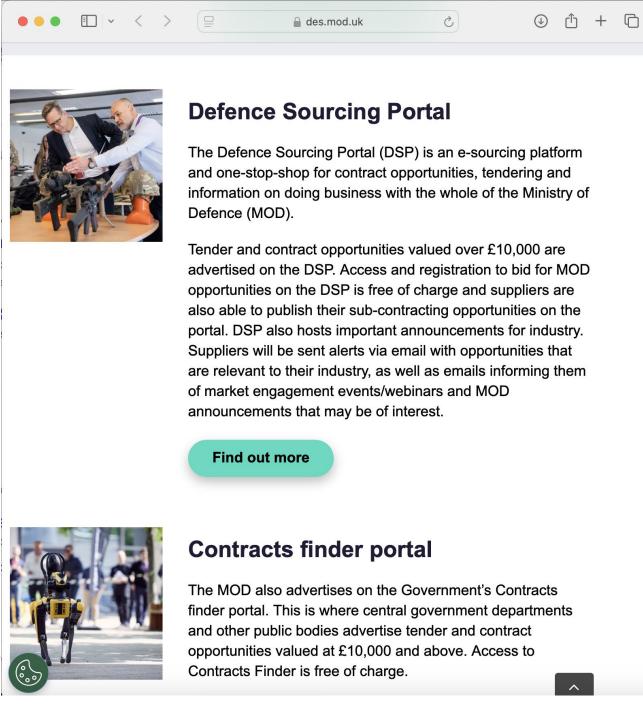




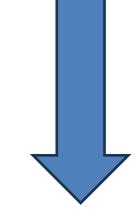








DE&S (Defence Equipment and Support) tells you how to work with them.



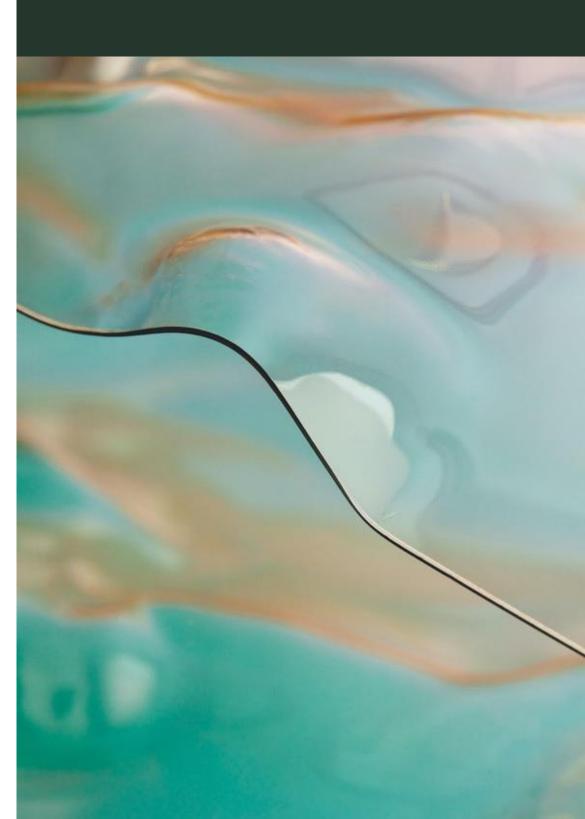
They tell you: go to the Defence Sourcing Portal and Contracts finder portal.













<u>Home</u> > <u>Defence</u> and armed forces > <u>Military</u> equipment, logistics and technology

> MOD Procurement: an overview



Ministry of Defence

MOD guide on how to work with them.

Guidance

Doing Business with Defence

Updated 10 April 2024

Contents

Who we are

How we procure

The areas we work in

Opportunities for business

Innovation in the defence supply chain

Other useful information

Useful links

Who we are

We are one of the biggest public procurement organisations in Europe and the single largest customer for UK industry. Over the next decade we are committed to spending over £190 billion on equipment and support. Our customers include both the armed forces and national security agencies, and we have a diverse range of requirements, including:

- military fighting vehicles
- education services











Contents

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Our major suppliers

Services

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Opportunities for business

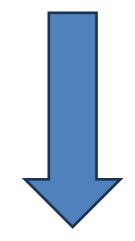
There are exciting opportunities for new, non-traditional and adjacent sectors to do business directly with the MOD, and indirectly with our major suppliers at sub-contract level. The programmes we support are detailed in the <u>defence equipment</u> <u>plan</u>, which includes equipment, infrastructure and the defence estate.

Defence Sourcing Portal

The <u>Defence Sourcing Portal</u> (DSP) is an e-sourcing platform for contract opportunities, tendering, and information on doing business with the MOD.

We advertise tender and contract opportunities valued over £10,000 on the DSP. Access and registration to bid for MOD opportunities on the DSP is free of charge, and suppliers are also able to publish their sub-contracting opportunities on the portal. DSP also hosts important announcements for industry. Suppliers will be sent alerts via email with opportunities that are relevant to their industry, as well as emails informing them of market engagement events, webinars and MOD announcements that may be of interest.

MOD guide on how to work with them.



They tell you: go to the Defence Sourcing Portal











BUT, this is not the sole resource you're going to need to explore to access opportunities.....

And how can you approach the tendering system and process in a practical way as an SME?







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MOD Procurement Portals – R-Cloud

Dstl centric portal for contract research

Access R-Cloud (Version 4)

Research Cloud (R-Cloud) is the Ministry of Defence (MOD) dynamic gateway for contracting science and technology research.

Managed by the Defence Science and Technology Laboratory (Dstl), R-Cloud offers an efficient and effective route to access the latest research opportunities in UK government defence and security.

If you are a supplier of research, whether a sole trader, small to medium-sized enterprise, academic institute or large defence organisation, applying to R-Cloud is your first step to accessing opportunities.

Use this service to:

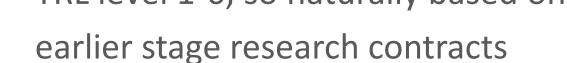
- create a supplier account with R-Cloud
- access the latest research opportunities offered by the MOD (from 1st December 2020)

Start now

https://rcloud.dstl.gov.uk

Portal summary

- Strongly Dstl focused/centric
- TRL level 1-6, so naturally based on
- As of Oct 2023, there's an extension



to this: R-Cloud+









Expansion - Introducing R-Cloud+

R-Cloud+ is a brand new optional addition to R-Cloud launched in October 2023. R-Cloud+ allows access to even more opportunities to engage with UK government defence and security research

Buyers can use R-Cloud (via R-Cloud+) to contract research requirements where it is necessary for some or all of the IPR generated to vest in the Crown. This means suppliers, who choose to apply, will be eligible to participate in even more R-Cloud tasks than

R-Cloud+ will use a new Annex to the R-Cloud Conditions of Contract (Schedule 3). This can be found at Annex B (Schedule 3) IPR Vesting in the Crown. This Annex will only apply to contracts awarded under R-

The Tasking Form will show which deliverables require Annex B, whether that is all or just some of those to be contracted.

Further information can be found in the R-Cloud Guidance for

MOD Procurement Portals – Serapis

[dstl]

Serapis framework
Updated 12 July 2024

A *framework* running to July 2025. Broken into "lots" managed by different industry primes. Front line commands, rapid exploitation of technologies.

Lot	Lead	Focus
Lot 1: Collect	Roke Manor	New ISTAR "collect" technology and techniques. Sensing focus.
Lot 2: Space	BAE Systems Applied Intelligence	Underpinning, fundamental applied space research, operations, boradly any space applications.
Lot 3: Decide	Qinetiq	Command and control (C2).
Lot 4: Assured information infrastructure	Qinetiq	Communication infrastructure and technology, assured information.
Lot 5: Simulation and synthetic environments	NSC	Tools and processes for any simulation activity within defence.
Lot 6: Understand	Frazer-Nash	Data analytics and information processing tools and techniques.











Realities of Portals

Many opportunities likely to be large, well-developed, and suitable for larger primes (as lead bidders).

So why sign up for portals and keep an eye on them?

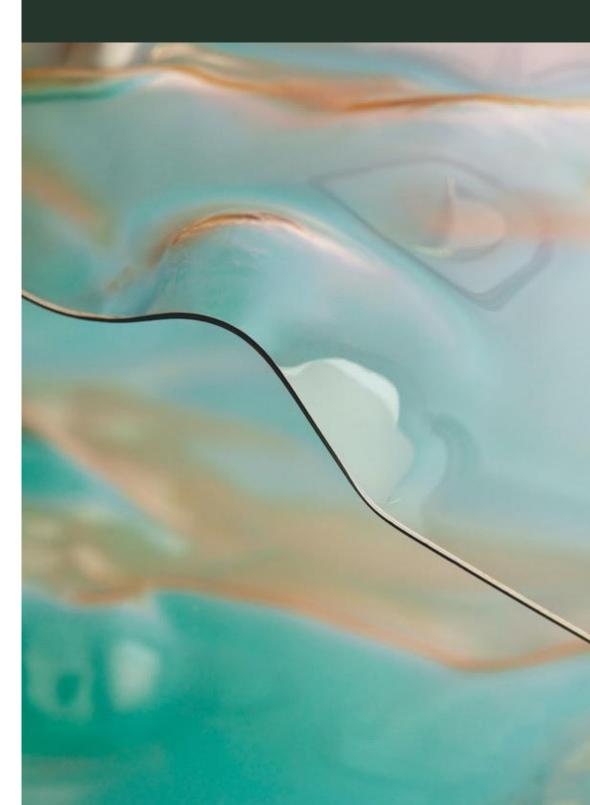
- Your window into defence procurement priorities
- Your opportunity to understand opportunities -> primes leading them
- Guide your tech strategy (is your product current or future)
- Some opportunities will be more suitable for start-ups and you'll be aware
- So you know where to dig to find sub-contracts











What Opportunities Show Up on Portals?

1. RFIs (Request for Information)

- Not contracts, but information returns
- Scoping out market and suppliers, shaping future tender

2. PQQs (Pre-Qualification Questionnaires)

- Initial qualification stage of a tender
- Preliminary information and broad outlines
- Weed out unqualified bidders, save everyone time

3. ITTs (Invitations to Tender)

- Formal tendering competition
- Scored categories, full information (mostly)
- Can be significant amounts of work



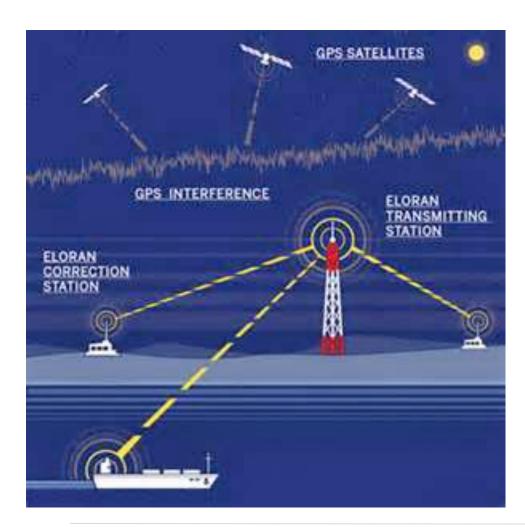


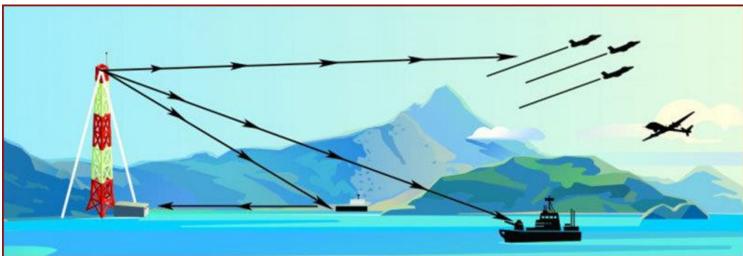




RFI Example: eLoran – What is it?

A ground based version of GPS/GNSS – a position and timing system based on terrestrial antennas broadcasting signal to receivers. Receivers triangulate signals to determine position.

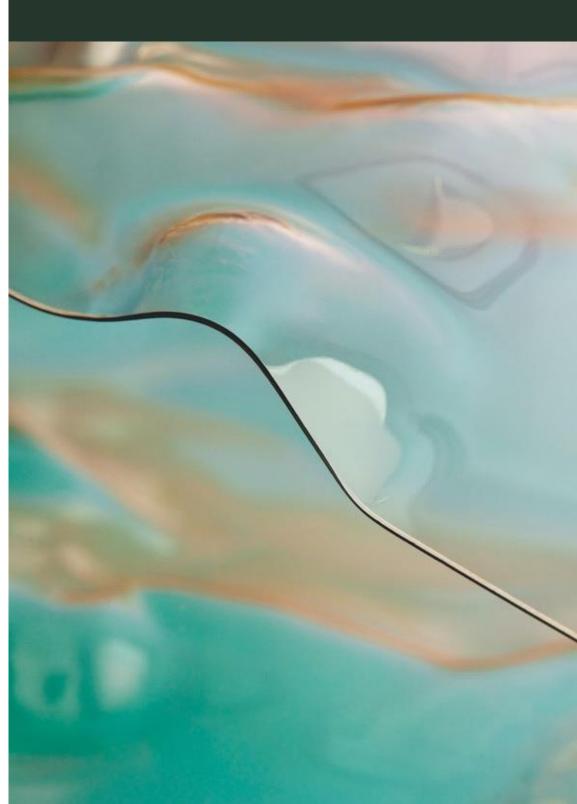












RFI Example eLoran – Why is it relevant?

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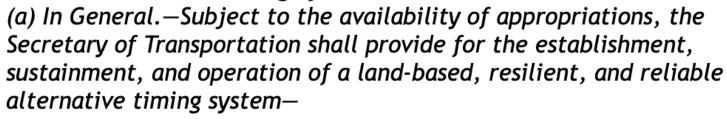
National Timing Resilience and Security Act of 2018



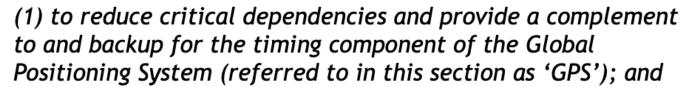
On December 4, 2018, President Trump signed the Frank LoBiondo Coast Guard Authorization Act of 2018 (P.L. 115-282), which includes as Section 514 the National Timing Resilience and Security Act of 2018.

The act amends Title 49 of the U.S. Code to include the following language:

§ 312. Alternative timing system







(2) to ensure the availability of uncorrupted and non-degraded timing signals for military and civilian users in the event that GPS timing signals are corrupted, degraded, unreliable, or otherwise unavailable.



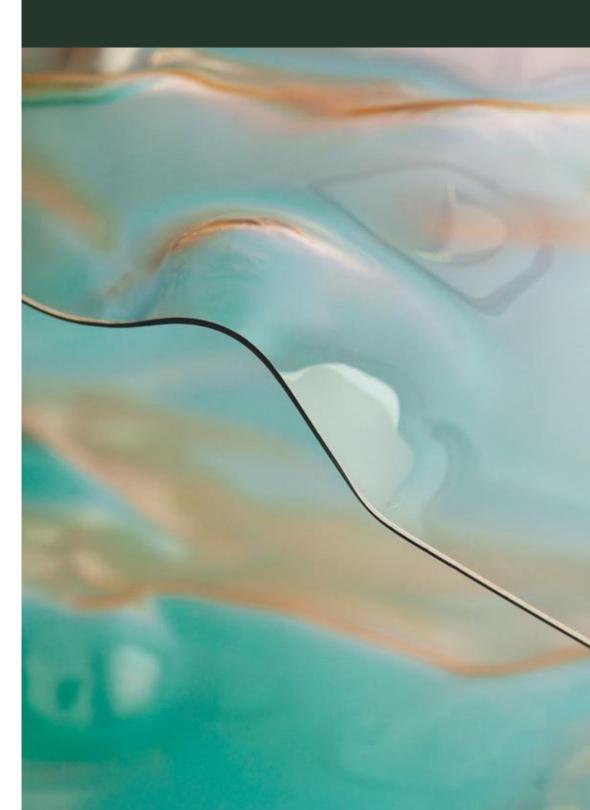
The act goes or to provide specific direction regarding: establishment of requirements; implementation plan; LORAN facilities; and agreement authority.





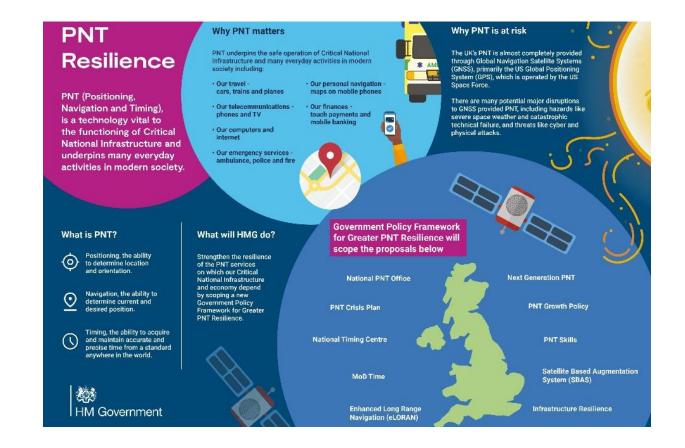






RFI Example: eLoran context in UK

Context: in 2023 UK Government published a 10 point framework for PNT Resilience (Position, Navigation, Timing)













PNT Resilience

PNT (Positioning, Navigation and Timing), is a technology vital to the functioning of Critical National Infrastructure and underpins many everyday activities in modern society.

Why PNT matters

PNT underpins the safe operation of Critical National Infrastructure and many everyday activities in modern society including:

- Our travel cars, trains and planes
- Our telecommunications phones and TV
- Our computers and internet
- Our emergency services ambulance, police and fire

- Our personal navigation maps on mobile phones
- Our finances touch payments and mobile banking



Why PNT is at risk

The UK's PNT is almost completely provided through Global Navigation Satellite Systems (GNSS), primarily the US Global Positioning System (GPS), which is operated by the US Space Force.

There are many potential major disruptions to GNSS provided PNT, including hazards like severe space weather and catastrophic technical failure, and threats like cyber and physical attacks.

What is PNT?



Positioning, the ability to determine location and orientation.



Navigation, the ability to determine current and desired position.



Timing, the ability to acquire and maintain accurate and precise time from a standard anywhere in the world.

What will HMG do?

Strengthen the resilience of the PNT services on which our Critical National Infrastructure and economy depend by scoping a new Government Policy Framework for Greater PNT Resilience. Government Policy Framework for Greater PNT Resilience will scope the proposals below

National PNT Office

PNT Crisis Plan

National Timing Centre

MoD Time

Enhanced Long Range Navigation (eLORAN)



PNT Growth Policy

PNT Skills

Satellite Based Augmentation System (SBAS)

Infrastructure Resilience



Home > 710338451 ALT PNT RFI

710338451 ALT PNT RFI

Ministry of Defence

Published date: 20 September 2024 Last edited date: 1 October 2024

Open future opportunity - This means that the buyer is not yet ready to invite bid applications but early notification has been provided and some dialogue may be possible.

Contract summary

Industry

• Global navigation and positioning systems (GPS or equivalent) - 38112100

https://www.contractsfinder.service.gov.uk/Notice/7acdd127-28b5-4047-8582-c2d1323faa15?







Watch this notice

Print this notice

Approach to market date: 1 April 2025





Value of contract

£52,000,000 to £70,000,000

Procurement reference

tender_407935/1403654

Published date

20 September 2024

Approach to market date

1 April 2025

Contract start date

17 November 2025

Contract end date

31 December 2026

Contract is suitable for SMEs?

Yes

Contract is suitable for VCSEs?

Yes











Description

Following on from our recent Industry Day on 1st March 2024, and subsequent update provided in June 2024, we thank you again for the engagement and RFI information provided, this has helped to steer our planning for the next stage of the Alt PNT project. The requirements for ALT PNT is still evolving, we have decided as we want to progress activities we are taking a measured approach at this stage, and focusing on Deployable eLoran technologies only at this time, we therefore are seeking RFI responses to support us in progressing this project.

Please see attachment associated with this notice.









Deployable eLoran

Background:

- The DF&S Alt PNT Programme assessment phase is focused on maturing diverse and complementary alternative PNT (non-GNSS) technologies, in order to develop a suite of information & options to inform subsequent exploitation by the UK MOD. In particular, the project is intending to mature technologies that are currently in prototype form, through to a stage where representative demonstrators & supporting information exists.
- As part of achieving the aims for the project, a deployable eLoran infrastructure (transmitter network) has been identified as a capability that the project is keen to mature to meet MOD's needs.
- The high-level aim for our development of deployable eLoran is to establish and demonstrate what is required to enable a practical network of deployable eLoran transmitters to provide time and position information to compatible eLoran receivers, within a GNSS denied environment.

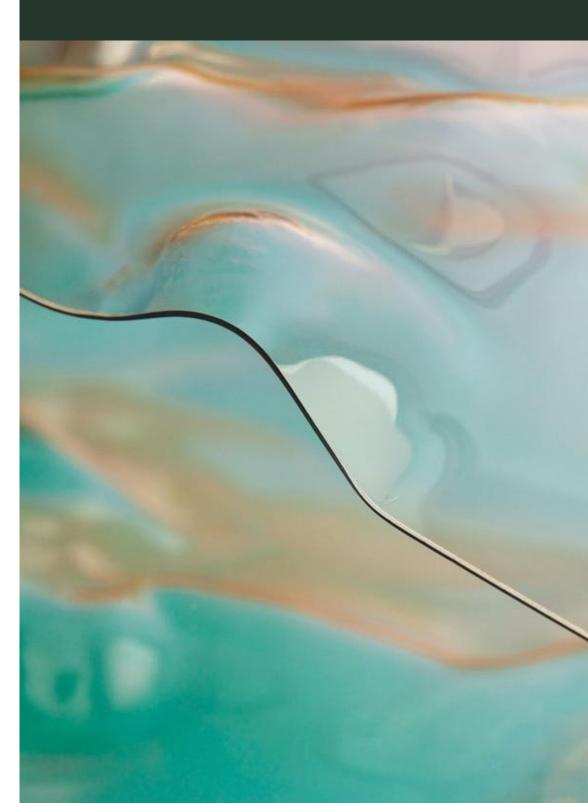
Aims:

- eLoran transmitter network that will meet UK MOD requirements (currently unavailable to share).
- Alongside the development of the deployable eLoran infrastructure, the MOD aims to simultaneously generate:
 - The necessary assurance evidence to enable any subsequent exploitation of the design.
 - A modelling capability, which will allow for theoretical analysis of capabilities and informing the concept of employment.
 - o An assured capability within the Loran Data Channel
 - o Information and demonstration of the resulting capability to stakeholders

Intended outcomes:

The key intent is to meet all of the above sime. To do this, an indicative work-breakdown structure is shown in Figure 1 and supporting outcomes are listed below:

Design and development of deployable eLoran transmitters, including the manufacture of representative prototypes. The resulting prototypes are expected to be of sufficient maturity, that they allow for physical testing & demonstration to be the primary method of verification against the requirements listed below. The design shall be such that changes to the transmitted waveform can be achieved via software modifications only.



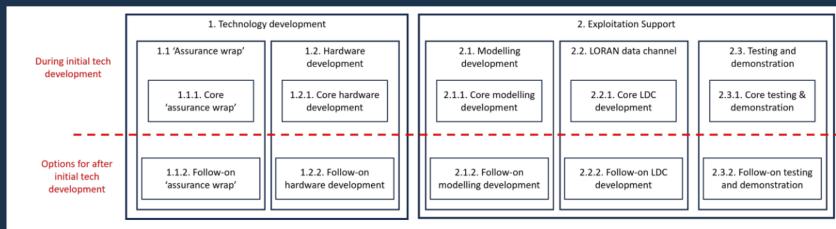


Figure 1 - Indicative work-breakdown structure

Summary of high-level requirements:

In support of this request for information, the MOD has included a number of high-level requirements that are intended to provide context to suppliers. The letting of this contract will follow the typical MOD process of being support by an Invitation to Tender and subsequent down-selection. During those stages, further detail on the requirements will be provided by the MOD.

ID	Requirement	Supporting detail
1	All development is to comply with MOD policies and standards, including but not limited to:	Compliance with the activities required by the Acquisition Safety and Environmental Management System. Compliance with activities required by policy for Secure by Design. Compliance with activities required by policy for exportability and capability protection Def Stan 00-056 (Safety Management Requirements for Defence Systems) Def Stan 00-055 (Requirements for Safety of Programmable Elements (PE) in Defence Systems) Def Stan 00-600 (Integrated Logistic Support Requirements for MOD Projects)



Questionnaire

- 1. Brief overview of company
- 2. What is your company's heritage in providing eLoran?
- 3. Estimate of time/cost to solutionise the above?
- 4. High Level concept to meet the technical requirements.











Submission guidelines

Please submit your response by 18th October to DESSpace-Comrcl@mod.gov.uk. Responses received after this deadline will not be considered.

Note: This is very much an information gathering exercise, the time allocated for responses is being driven by internal approval processes, as such please provide whatever information you can within the aforementioned time in the most convenient format.

For the procurement of this requirement, a Contract Notice will be published in the future (date TBC but the aim is to release an ITT in April 2025). The Contract Notice will request expressions of interest for provision of the requirement, if no further interest is received an ITT will be issued to only those who have responded to this RFI.











RFI Example: eLoran – how an SME might respond

1. Is the opportunity worthwhile persuing?

- Relevant to my business even tangentially?
- Can I help with any aspect of it?
- Can I think of any way for my product/service being useful?

2. Could I prime if I wanted?

- Yes probably should submit an RFI
- No you've got some options
 - Submit an RFI anyway
 - Visibility, keeping in the comms loop, why not?
 - Find out who is interested
 - What primes are bidding? What other SMEs might be relevant?









RFI Example: eLoran – how an SME might respond

3. Do I want to invest more time digging?

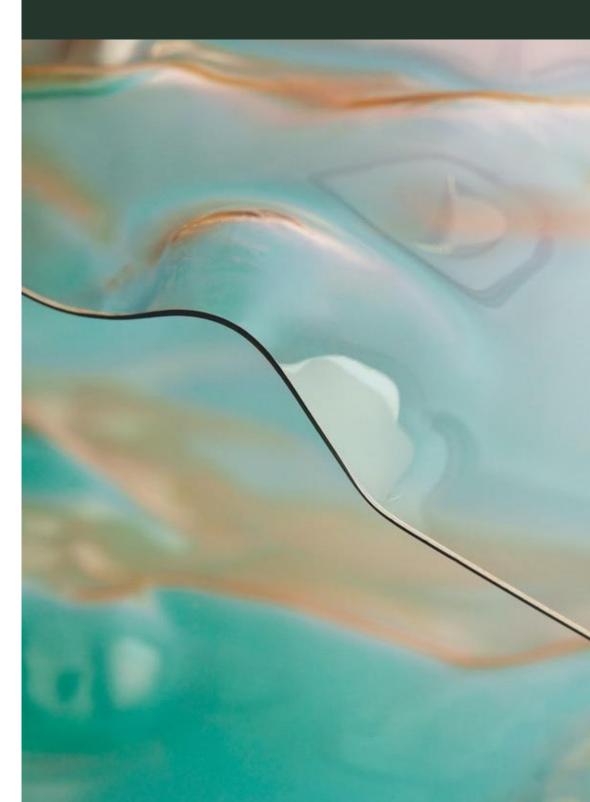
- Note any industry days, suppliers information sessions, email addresses where you can ask questions
 - You can ask if there is a list of interested bidders you can join
- Use it as an excuse to build your network
 - Much easier to reach out to people saying "Hey, are you looking at this opportunity?" than a usual cold reach out to new contacts
- Excuse to map out a specific area
 - Who are the players? What is the need?
 - How is this programme being funded?
 - What's likely to come in future related to this?











What about PQQs and ITTs? The Basics

Contract requirements are *flowed down*, you can't get away from them as a sub-contractor even if you have a small role down the food chain

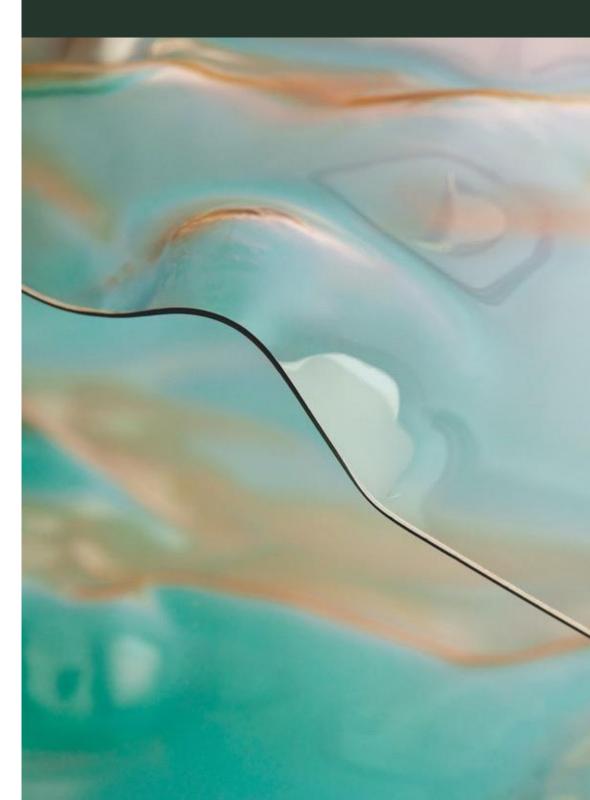
- Essential bidding requirements
 - Cybersecurity (i.e. Cyber Essentials)
 - Understand document security classifications
 - Understand security clearance requirements (often less strict than you might think)
 - Understand Security Aspects Letters
 - Audited accounts and turnover figures
 - Evidence of Quality Management, Sub-contractor management policies if applicable











PQQ/ITT: What's in it?

Buyer documents (either Word or PDF):

- 1. PQQ/ITT Guidance and Summary document
- 2. Relevant Annexes (i.e. slides from industry day)
- 3. PQQ: Contract Notice ITT: Draft Contract
- 4. Draft User Requirements Summary
- 5. Draft Capability Requirements Statement
- 6. Marking Criteria for questions
- 7. Explanatory document for questions
- 8. Draft or final security aspects letter
- 9. Draft or final security requirements









PQQ/ITT Example

Things you have to return:

- 1. Every single tick box and requirement filled in on the platform
- 2. All relevant attachments (examples)
 - 1. Modern slavery statements (and similar)
 - 2. Signed agreements
 - 3. Audited account statements
- 3. Examples case studies of past projects
- 4. Statements on capability, staffing, capacity
- 5. Statements on your ability to meet *technical* aspects of bid with evidence
- 6. Statements on your ability to meet *security* aspects of bid with evidence









PQQ/ITT Response: What if you're an SME?

- The prime will be asking sub-contracts for information to support them in meeting all the essential requirements.
- All Primes have restrictions (available resource, capability gaps, requirement for something novel to input to bid, lack of case studies in relevant areas) and they need an ecosystem of sub-contracts to help them create a compelling and full bid
- You can try to engage at any stage with primes/others in the food chain: RFI, PQQ, ITT, post ITT (during contract negotiation), postcontract award. If they don't know you exist, they can't find you!











Key Takeaways Related to Portals

- They're your window into what is happening in your field
- For SMEs, often they're most useful as the starting point for actioning a BD engagement plan (rather than directly bidding)
- Make a system! Lots of noise with tenders, organize your life so it's not overwhelming
- If you've never pursued an RFI or PQQ, just have a go! See the process, iterate and become better.











Additional Resources Worth Looking At

- MOD drafted overview on how to work with them:
 - https://www.gov.uk/government/publications/mod-procurement-anoverview/doing-business-with-defence
 - Major suppliers
 - Lots of further links to relevant policies, guides on procurement
 - Facilities and security aspects
 - Accreditations (Cyber and other)
 - Contact details within MOD for people to help
- Understanding security aspects:
 - https://www.gov.uk/government/collections/government-security
- HMG drafted overview of how SMEs can work with government:
 - https://www.gov.uk/government/publications/smes-a-guide-toworking-with-government













Exotopic

Bidding - Key Tendering Gaps and Actions







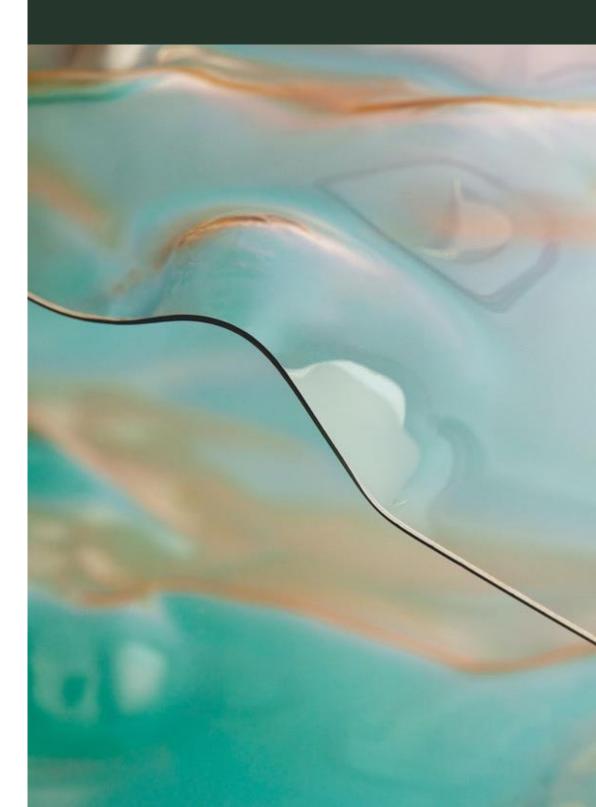
Tender Readiness: Essential Company Requirements

Security Clearance	Handling Sensitive Documents	Cyber Essentials/+ Certification
Company Registration	Understand Security Aspects Letters	Finances in order (audited accounts)
Dun & Bradstreet D-U-N-S Number	Understand Security Aspects Questionnaire	Company Overview
Excellent governance related to employee vetting (e.g. BPSS check) from start of employement and kept up to date	Full understanding of employee nationality/ies, right to work, clearance status, etc.	IT systems in good shape – best practice understood, options for future upgrades understood (working with partners in secure way, handling things internally)
Good working practice for physical security (find out what's required – start doing it regardless)	Any optional requirements which pop up (supplier codes of conduct)	









Tender Readiness: Commercial and Finance

Day rates – your own, understanding of what's normal/expected	Strategy on margins for different contract types	Clean books (VAT up to date, audited, etc)
Full understanding/documentat ion of ownership, shareholding	Full understanding of <i>any</i> associations with countries under embargo, sanctions, and restrictions	Understanding of your value compared to overall project and budget
Clear negotiation strategy with prime/partners/sub-contractors	Full understanding /strategy of when you can charge for day rates versus delivery of milestones, services, deliverables	Templates for project costing
System/process of invoicing	NDA template (if needed)	Advisors to hand for legal: contracts review, security questions, etc.









Tender Readiness: Project Management and Delivery Capability

Full understanding of your supply chain	Full understanding of good project management practice	Full understanding of background strategy and context to a tender
Strong delivery methodology which you will reuse over and over	Strong work logic which you will reuse over and over	Templates for project plans
"Ready to go" partnerships (e.g. other friendly companies) you can pull in to help fill gaps	Company CVs for all staff, kept up to date, attractive. Likely multiple versions	1 paragraph bios of your company, all staff, all commonly used partners











Tender Readiness: Quality and Risk Management

Understand enough about DEFCONs (Defence Conditions)	Understand enough about DEFFORMS (Defence Forms)	Full understanding of normal quality frameworks (e.g. ISO9001) and how you can demonstrate equivalence (as you likely won't have it)
Good understanding of how to describe and assumptions and dependencies	Template for risk and issues register which you'll use over and over again	Develop a good list of standards risks you can use to start any risk register entry and modify
Quality Management processes internally you can document and use to show you're able to demonstrate QA	Clear understanding of skills in organization who can deliver, QA, provide oversight, escalation, etc.	











Thank You

Please don't forget to leave feedback!

• entrepreneurial-spar

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