

16th Suppliers' Event

23 April 2026

Welcome, Mission and Highlights

Tim Bestwick, Interim CEO

Housekeeping



No fire alarms are scheduled for today.



This is a hybrid session.

Virtual Attendees: Online presentations (only).

In-Person Attendees: Presentations will take place in the JALT, followed by lunch, exhibition booths, workshop and networking in the C7 building.



Presentation slides will be distributed after the event.



We will send out a feedback form post-event. Please fill this out and help us improve our engagement activities.

Agenda

10:30 to 12:40 | Presentations

Welcome, Mission and Highlights, Tim Bestwick - Interim CEO

Culham Campus Updates, Keith Fraser - Head of Infrastructure and Development

Updates on LiBRTI, Blankets, Research & Materials, Amanda Quadling - Executive Director of Materials, Blankets and Research

Strengthening Cyber Security, Justin Kingsford - COO

Supply Chain Cyber Security, Andrew Hynes - Director of Computing Operations

Updates on UK Fusion Energy Ltd., Sho Dutta - Commercial and Supply Chain Director

Updates on Health & Safety, Suzie Melvin - Head of Safety, Health and Environment

Updates on JET Decommissioning & Repurposing (JDR), Zac Scott - Director of JET Decommissioning and Repurposing

Updates on Robotics and Artificial Intelligence Collaboration (RAICo), Pete Gillham, Head of Operations

Commercial Updates and Closing Remarks, Paula Barham - Director of Commercial

12:40 to 14:10 | Networking Lunch

12:40 to 15:00 | Exhibition Booths

13:30 to 14:15 | Workshop: New ways to work with UKAEA on Research and Development projects

13:30 to 14:30 | Quick Talks – Commercial Edition

15:00 to 15:30 / 15:40 to 16:10 | JET Site Tours

UKAEA Group: Mission, Roles and Strategic Goals

UKAEA National Fusion Laboratory's role

Deliver foundational research, technology and innovation in support of the UK fusion sector through world-leading fusion expertise and capability.

UK Fusion Energy's role

Deliver STEP and successive fusion power plants by acting as a national fusion systems integrator and working with industrial partners to develop and deploy the technologies and capabilities required.

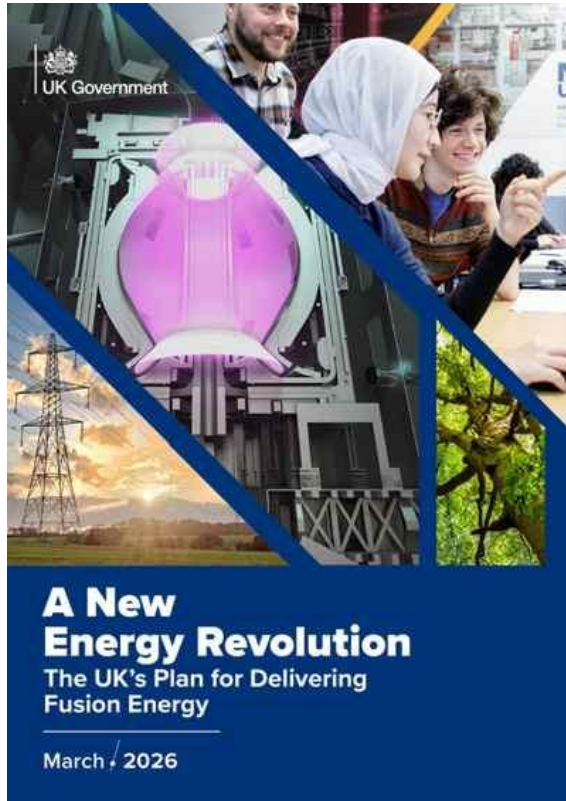


Colour key

- UKAEA primary goal
- UKFE primary goal
- UKAEA and UKFE supporting goals

The UK's Plan for Delivering Fusion Energy

UK Government



Published on 16 March, the Government's UK Fusion Strategy sets out a clear plan for how the UK will continue to build an industry to remain at the cutting edge of fusion development, supported by the £2.5 billion fusion settlement to 2030:

- **A world-first fusion market framework**, including the development of a new Fusion National Policy Statement.
- **Development of the STEP prototype fusion power plant**, £1.3 billion of funding, including a £200m construction partner contract.
- **Investment in advanced computing for fusion**, including the £45 million Sunrise fusion-dedicated AI supercomputer, as part of the wider Culham AI Growth Zone.
- **Strengthened international collaboration**, including new partnerships linked to the H3AT tritium fuel cycle facility.
- **Support for fusion skills worth £50 million**, supporting training for over 2,000 people and **the launch of a UK fusion investment prospectus**.

UKAEA National Fusion Laboratory:

Our strategy sets out flagship activities and objectives through to 2030, based on our technical capabilities and structured around four strategic themes:



RESEARCH

High-impact science underpinning fusion delivery



COMMERCIALISATION

Turning UKAEA innovation into UK economic value



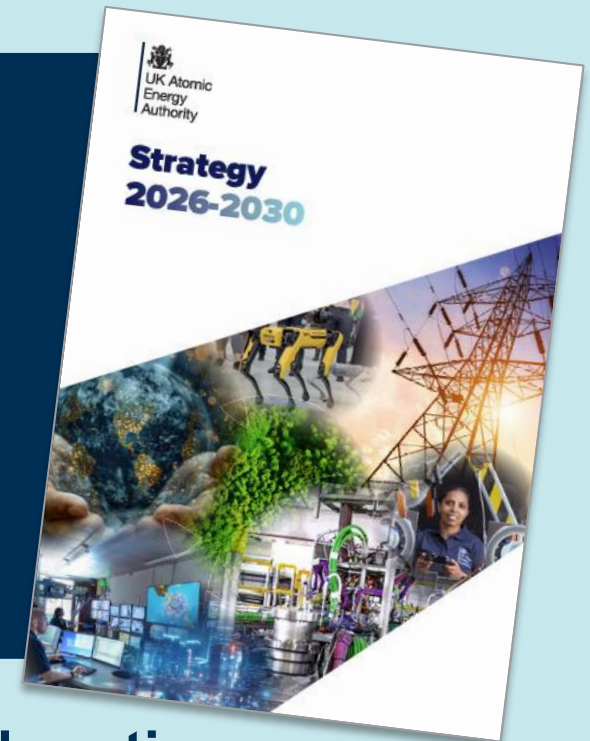
INTERNATIONAL

Global collaboration to share risk and expertise



INDUSTRY

Growing UK supply chain and industrial capability



Delivering this will require **sustained focus, strong collaboration and disciplined execution** - with **clear priorities** guiding how we work over the coming years.

**CULHAM
CAMPUS**

Culham Campus Updates

Keith Fraser, Head of Infrastructure and
Development



WELCOME TO CULHAM CAMPUS

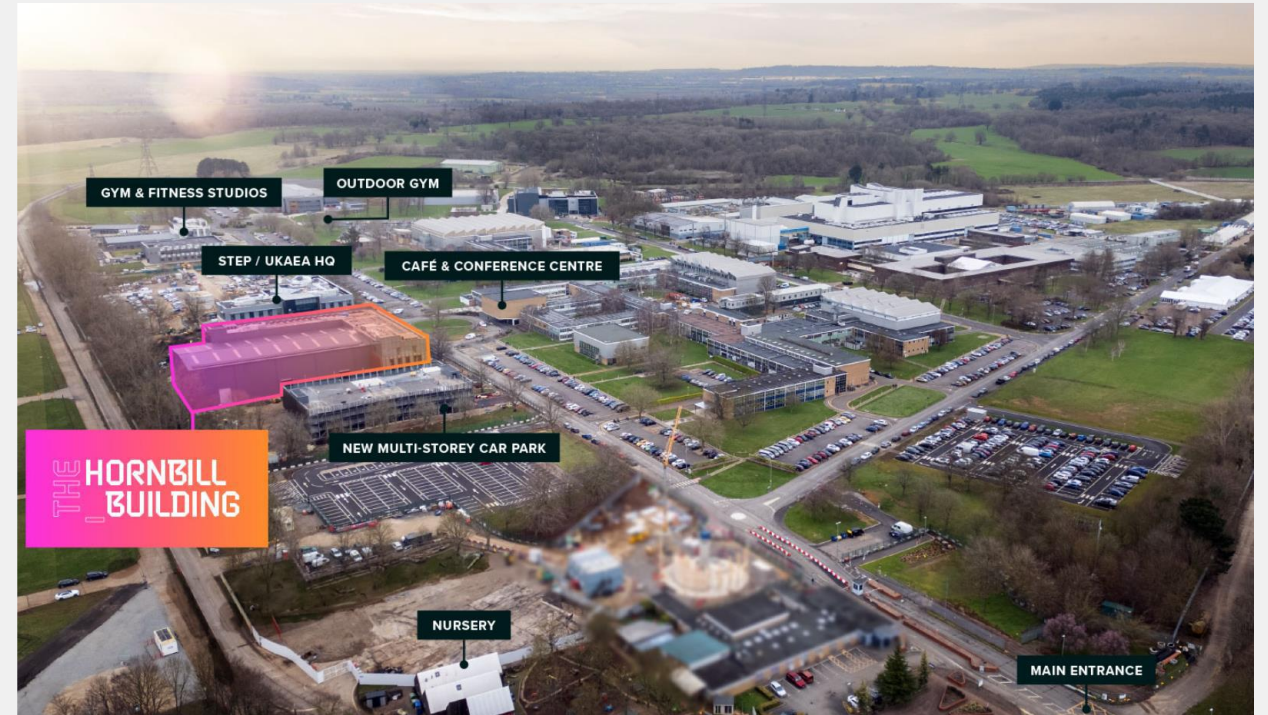
A HUB OF COLLABORATION, INNOVATION AND SCIENTIFIC PASSION

Culham Campus is at the heart of the **UK's fusion energy** and **AI** innovation sector. As it continues to grow, there's a significant opportunity for forward-thinking suppliers to establish a presence here and collaborate with cutting-edge industries



CULHAM CAMPUS

- UKAEA owns freehold; 77ha/190 acres
- Established **centre for Fusion and AI** with an **international reputation**
- Strong industry connections
- **Growing cluster** of advanced tech companies; ca 40 tenants employing over 1000 people in over 200,000 sq ft of space
- Significant **established amenity**; restaurants, creche, cafes, sports facilities and conferencing
- **Secure site**



OVERVIEW

Location and Accessibility

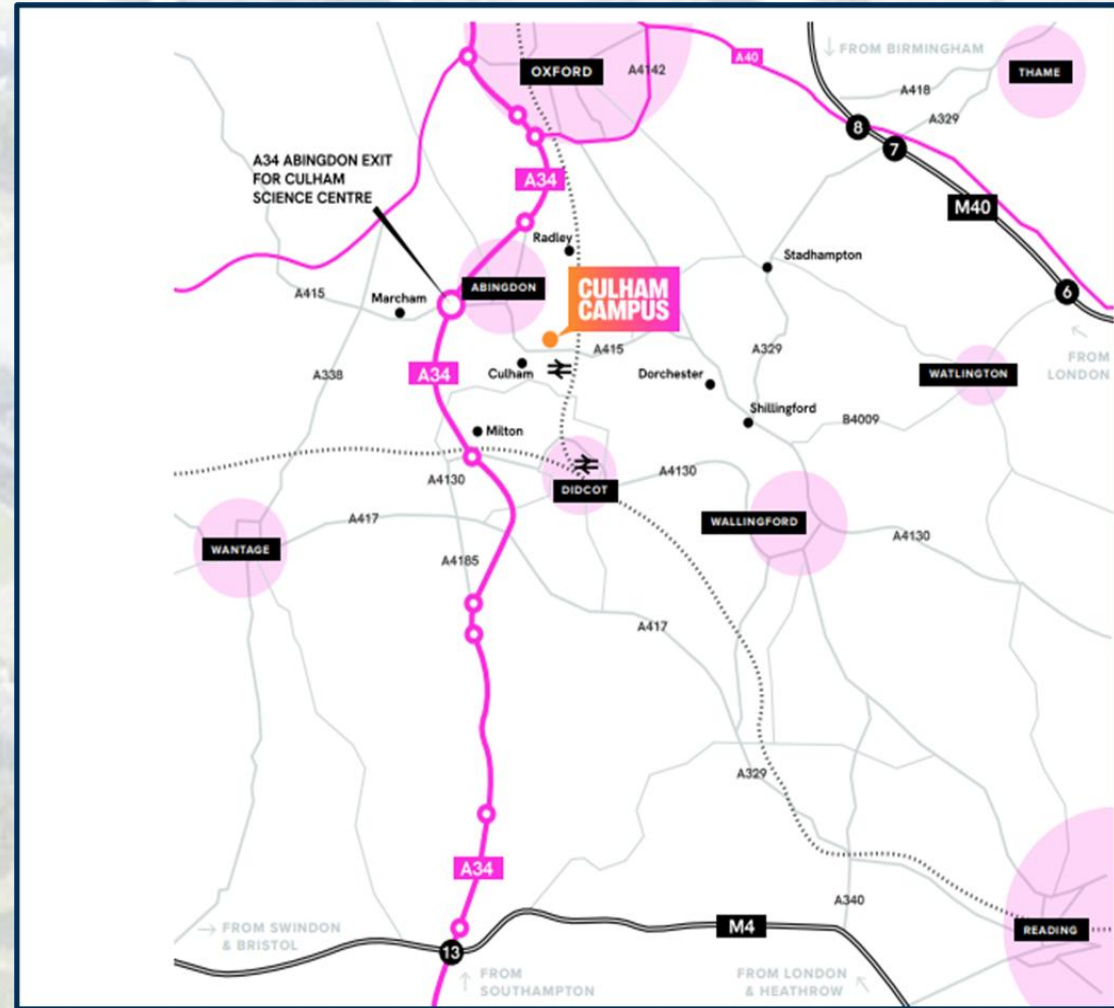
- Excellent public transport links and easy access to the train station
- Will have immediate proximity to the new bypass, making connections even easier

Unique features

- Home to Fusion Research & Facilities (MAST-U and ongoing experiments – Plasma & advanced materials)
- Hub for high tech business with facilities supporting startups and research collaborations
- Home to Robotics and Remote Handling
- Deeply focused on sustainability and Green Innovation
- UKAEA is deeply integrated into international research
- Secure, safe site

Community

- OFSTED rated Excellent, Nursery
- Collaboration areas
- Gym/nature walks/Restaurants/Car share
- 40 commercial businesses



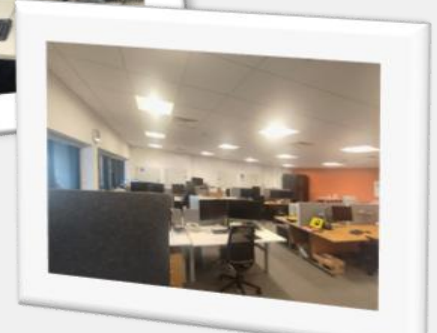
CULHAM AI GROWTH ZONE & STRATEGIC INVESTMENT PARTNER



**AI generated illustration*

- Culham AI Growth Zone will be an **AI & Fusion Centre of Excellence**:
- **AI Growth Zones (AIGZs)** are UK Government designated locations established to accelerate the deployment of largescale AI and advanced computing infrastructure.
- STRIDE (**S**trategic Investment and **D**evelopment for **E**nergy) is in the final stages of negotiating a strategic partnership to develop Culham Campus and generate a multi-£m inward investment

SPACE AVAILABILITY



Whether your business is looking for an accelerator hub or established space on the Campus, Culham has a range of space options ranging from 114 sq.ft/10.6sq.m to 3,000 sq.ft/279 sq.m.

- Rent for Culhams smallest spaces start from as little as £2,000 per Annum!
 - Range of lease lengths from TaW to 10+Years
- Office accommodation from 1,000 sq.ft – 3,000 sq.ft can be secured at annual rents ranging between £35,500 to £62,500.

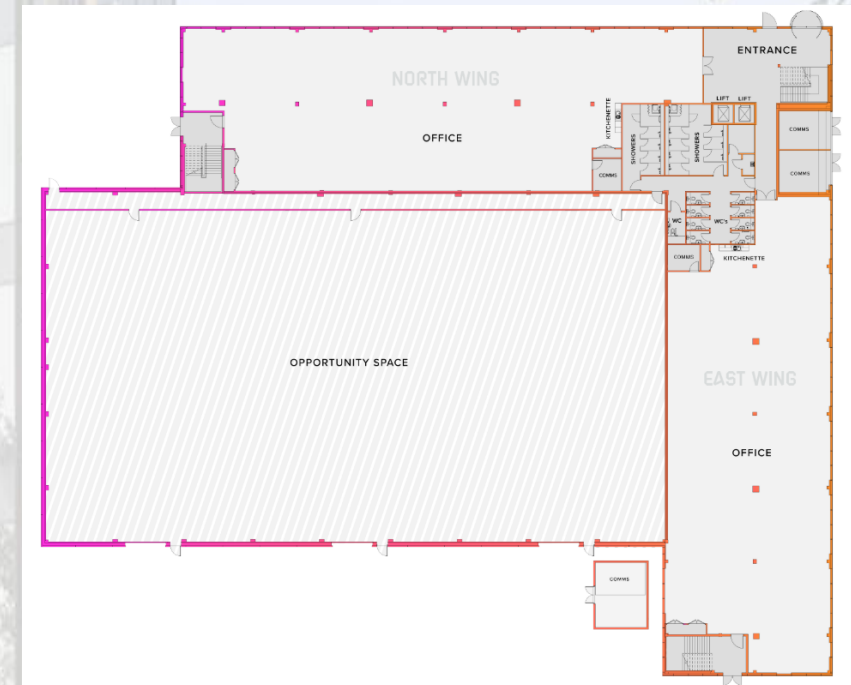
www.thehornbillbuilding.com

Grade A, L shaped office space (69,191 sq ft) wrapped around an industrial hall (22,812 sq ft), the building is split across four floors and focused on providing the best research and development space on Campus.



Outside offers a new shared 262 space multi-storey car park. The Hornbill Building has sustainability at its heart with the intention of driving lower running costs.

Floor	SQ FT (NIA)
Ground	15,625
First	Let
Second	Let
Third	18,032
Total	69,191



COLLABORATION SPACES

- **Flexible, modern workspaces** designed to support collaboration, innovation, and productivity, with adaptable layouts for teams of different sizes.



LAB SPACES

- Flexible lab types: wet, dry, and hybrid spaces for diverse R&D needs.
- Customisable layouts to suit changing projects and workflows.
- High-spec, scalable facilities built for innovation and growth.



K1 BUILDING

- Flexible Workspace – Modern, adaptable offices
- Great Amenities – Parking, café, shared facilities
- Flexible Terms – Designed to support business growth



F11 BUILDING

- Flexible workspace – 2,973 sq ft modular ground-floor office
- Move-in ready – meeting room, kitchen, parking
- Prime campus location – part of Culham's fusion



WHY CULHAM CAMPUS?

- **Strategic location & business growth potential**
- **Flexible** – cost effective **leasing**.
- Great opportunity for knowledge exchange and **collaboration** between tenants and to be part of the **Fusion Cluster** and **commercial opportunities**.
- Access to world – leading fusion research & facilities.
- **Government & Private Sector Investment.**
- High tech talent pool & recruitment benefits
- Access to communal facilities - Coffee Lounge, restaurants, gym and outdoor green spaces.





UKAEA

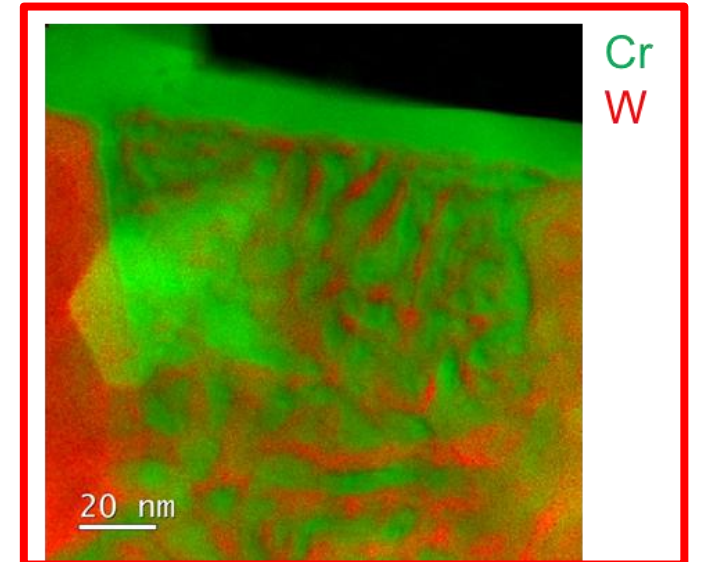
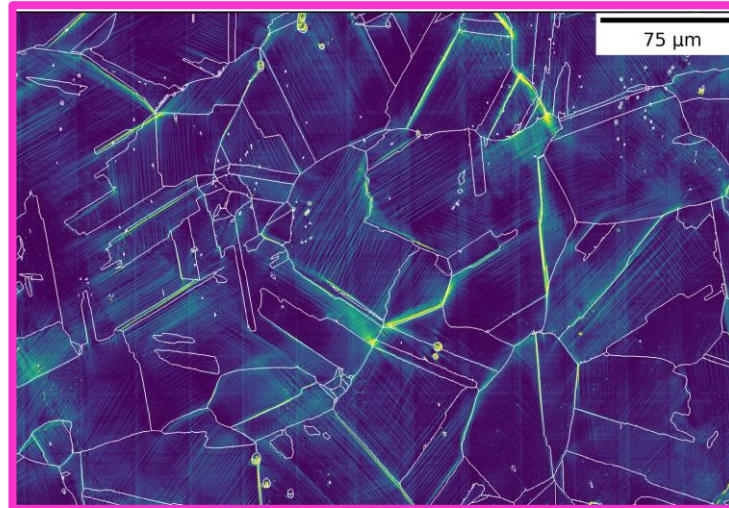
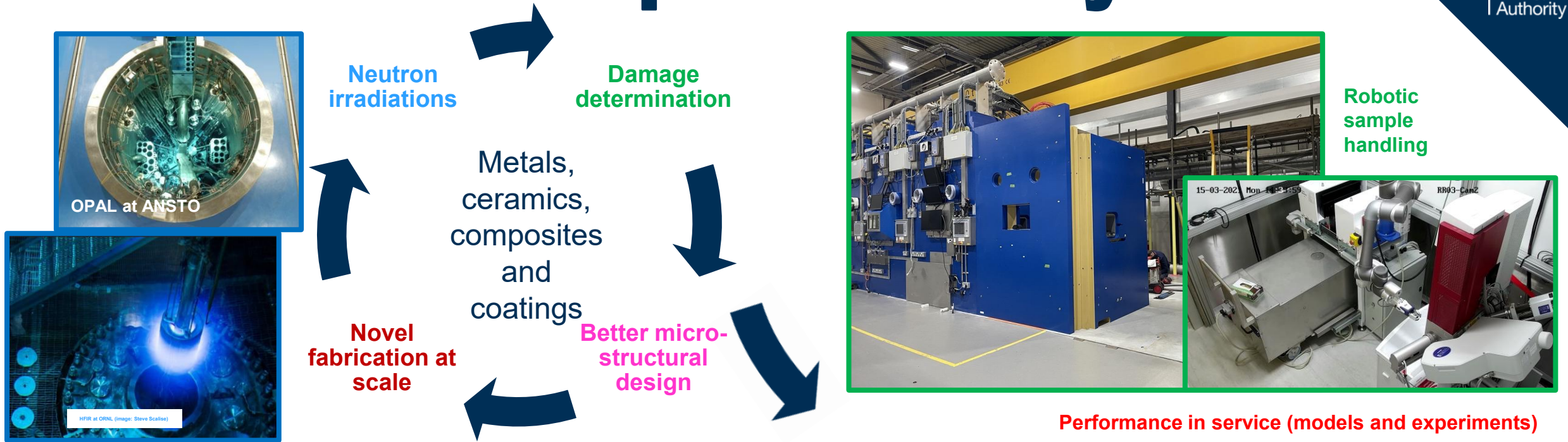
Materials Division

Suppliers Day Update – April 2026

Amanda Quadling, Exec Director – Materials, Blankets and Research



Reminder on scope of activity



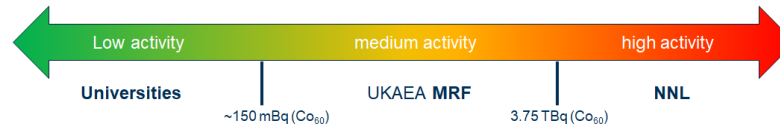
Materials Research Facility (MRF)

MRF has a new Full Economic Cost of Operation and NEW PRICING LIST

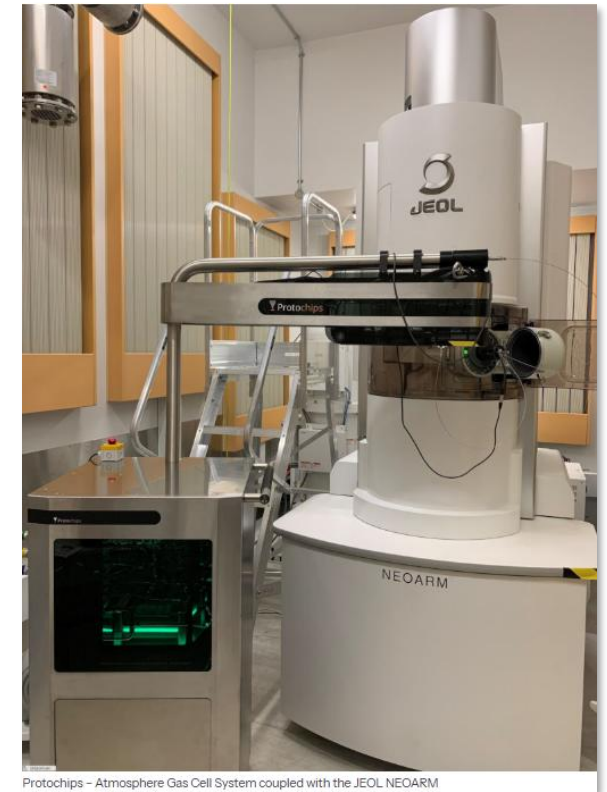
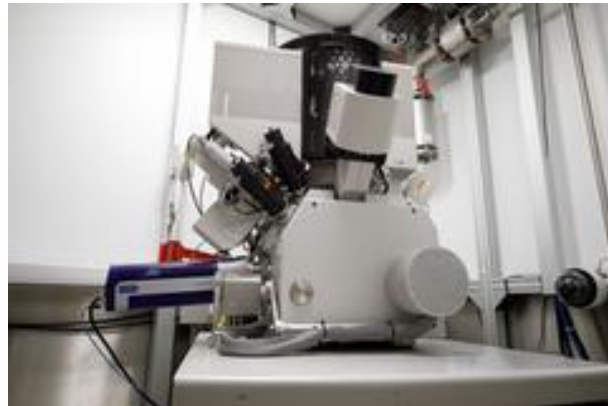
While Full Economic Cost is charged for radioactive samples, there is a 10-20% discount for non-active materials

NEW COMMERCIAL OFFERINGS: rental of shielded test rooms and bays in open lab areas for customer glovebox installations

- ❑ 4400m² of hot cell, research room, and office space for Industry and Academic users
- ❑ Voucher schemes are useful to subsidise access: watch for NNUF and Royce calls



Find a full list of instrumentation online at: [Materials Research Facility Archives | UKAEA Fusion Energy](#)



Generating irradiated materials

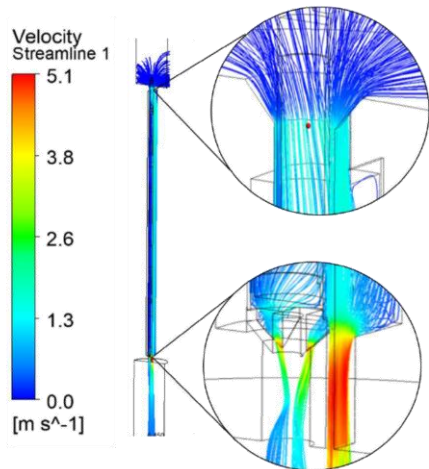
Materials design

Irradiations design

Post irradiation testing

Modelling pre- and post-experiments

Materials end of life



Calculating thermal profiles for reactor exposure times



Preparing coupons of materials to reactor specification



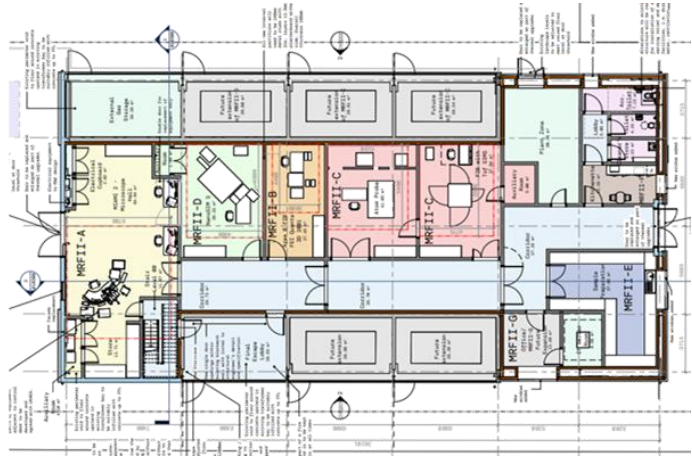
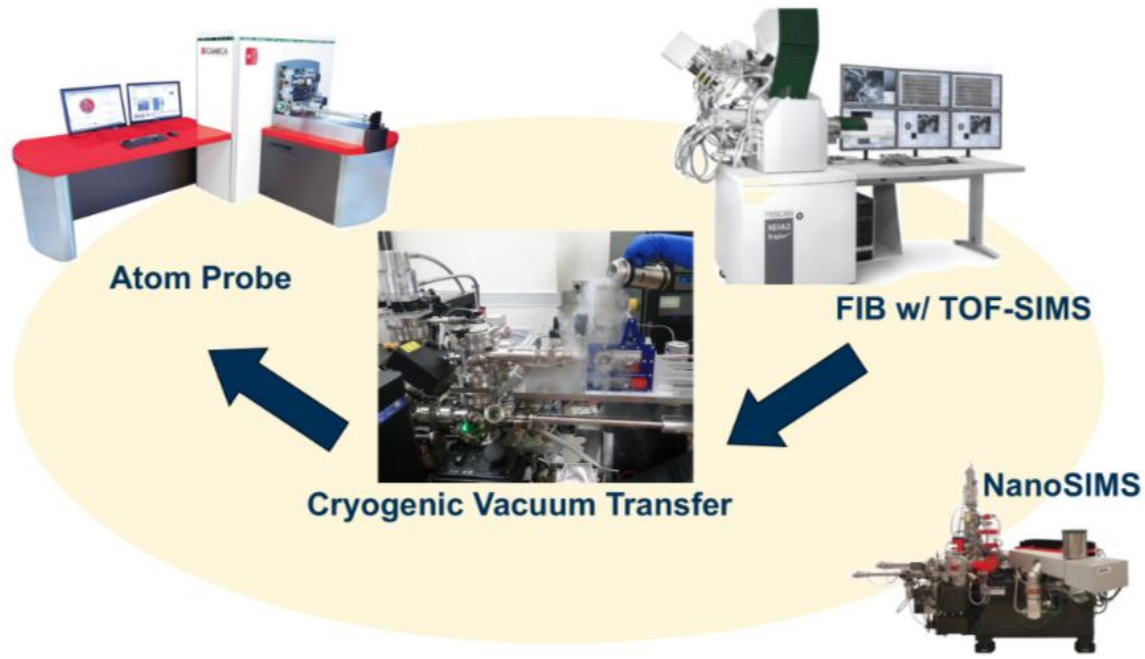
Designing bespoke sample holders for post irradiation testing



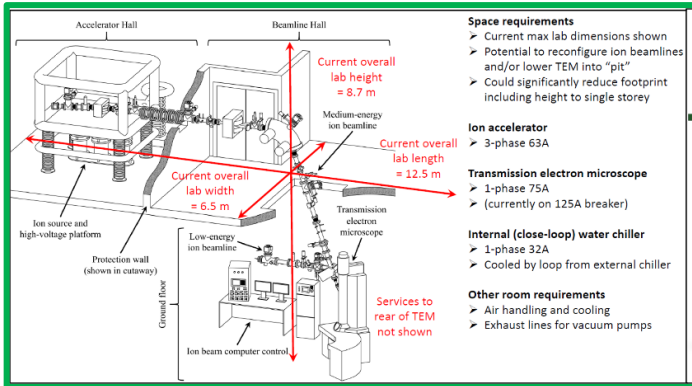
Designing remote control systems for handling active materials

Another MRF in the family

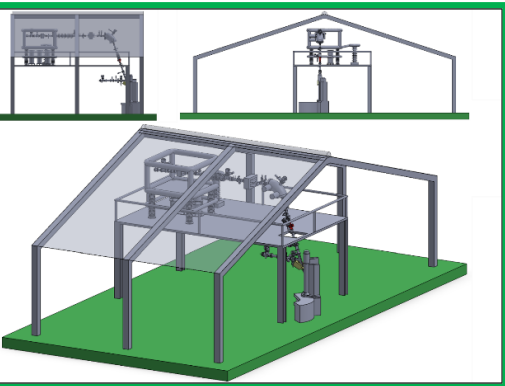
- Re-use of a JET estate asset, building J41
- Two key new pieces of kit going in: MIAMI-2 and TRITIMAP



Mapping tritium distribution in materials



- Space requirements**
- Current max lab dimensions shown
 - Potential to reconfigure ion beamlines and/or lower TEM into "pit"
 - Could significantly reduce footprint including height to single storey
- Ion accelerator**
- 3-phase 63A
- Transmission electron microscope**
- 1-phase 75A
 - (currently on 125A breaker)
- Internal (close-loop) water chiller**
- 1-phase 32A
 - Cooled by loop from external chiller
- Other room requirements**
- Air handling and cooling
 - Exhaust lines for vacuum pumps



UK Fusion Materials Roadmap 2025



Cross-cutting challenges

1. Regulation, codes and standards, assurance and qualification
2. People: skills, training, and developing UK capabilities
3. Waste management
4. Supply chain

Magnets and Shielding

For magnetic confinement fusion, high strength (> 17 T) magnetic fields are required to confine the fusion plasma (1). High Temperature Superconducting (HTS) magnets are considered an enabling technological priority for fusion. The USA company Commonwealth Fusion Systems (CFS) raised ~ \$2B in philanthropic investment and reported manufacturing magnets that achieved a HTS world-record field strength of 20 T (2). In the UK, Tokamak Energy reported delivery of HTS coils (3).

Despite these advances, many challenges must still be overcome to enable high neutron fluence and operational HTS magnets. HTS magnets have no experience with fusion, space, or defence (TRL) are low, e.g. 2 to 4 (4). Many free-market defaults in industrial HTS materials in tape, cable, and magnet form UK HTS materials development facility for HTS magnets, and furthermore, the impact of irradiation on HTS materials under operational conditions of a 17 T magnetic field, 20 K high (in-net) fusion flux is not known. The critical current and then severely degrades at high neutron fluence above capability to test tapes under fusion conditions (simultaneous conditions are particularly acute for the UK compact sphere Tokamak Energy designs where only small volumes are in central columns, and must comprise advanced shielding and maintenance of replaceable magnets. The figure below, the spherical tokamak design with the radial space available to

34 Materials Roadmap United Kingdom Atomic Energy Authority

MAGNETS AND SHIELDING

Shielding

Cemented and binderless tungsten borides (WB) and carbides (WC) are the current shielding materials of choice, with zirconium (ZrH₂) and hafnium hydrides (HfH₂) also being explored as strong neutron and gamma attenuators, alongside more traditional materials such as graphite and beryllium.

Tritium Breeding

A critical component of any self-sustaining fusion power station is the tritium breeder blanket. For commercial fusion, tritium will be produced (bred) in a region surrounding the fusion plasma, called the breeder blanket. Tritium breeding materials comprising lithium are proposed, as the absorption of a fusion neutron by lithium results in its transmutation to tritium and helium. In addition to tritium, the high heat deposited by the fusion neutrons will be extracted from the breeder blanket and used to generate energy.

There is currently no global consensus on the choice of tritium breeding material, and both liquid and solid concepts are under development. The UK program has aimed to test four blanket module concepts: ceramic breeder blanket (CEREB), helium-cooled ceramic breeder blanket (HCCB), and ceramic breeder blanket (CEREB) and ceramic breeder blanket (CEREB).

Transmission X-ray Diffraction (TRD) of cemented WB Hypertan (image provided by Dr M. ...)

38 Materials Roadmap United Kingdom Atomic Energy Authority

High temperature materials: plasma facing materials and blanket structure

Materials that are closest to the fusion plasma (e.g., the first wall, divertor and limiter), and structural materials that comprise the tritium breeder blanket will experience extreme heat and particle fluxes, simultaneously with variable thermo-mechanical loads and other environmental degradation effects. The precise operational conditions locally, and therefore materials requirements and the availability of those engineering components before their replacement or decommissioning, will vary significantly across the fusion power plant design. A recent publication from the Systems VVDS team (1) has provided valuable insights into the design of a potential prototype power plant. The table on page 12 describes current candidate structural materials and their properties, and the figure below shows a design (maximum outlet temperature of 600 °C, and for a temperature of 1000 °C) suitable for conduction of process heat.

Modelling and Simulation

The development of materials, their fabrication into components and the qualification of the systems constructed from these components, will require significant input from modelling and simulation-based research. In rapid qualification or co-qualification of materials is to be adopted, there is a role for modelling and simulation in defining the most important measurements to make on limited amounts of appropriately-qualified materials (according to the different modes of material degradation, etc), and in assessing demonstration power plant design, such that components and specimens can be removed for testing after limited operation. Drivers for a particularly prominent role for modelling and simulation in the case of fusion are:

- the rapid pace of progress required;
- the breadth of options currently under consideration;
- the lack of facilities for direct experimental testing in a fully representative environment;
- the high cost of experiment and testing;
- the need to design and qualify novel, highly radiation-tolerant materials for fusion;
- the need for integrated neutronics simulations with materials modelling.

Historically, modelling and simulation of materials have tended to focus on the following approaches:

- 1 exploring the behaviour and properties of materials to arrive at a mechanistic understanding;
- 2 predictions from first principles of properties at the small scale (most typically atomic);
- 3 predictions of material behaviour at larger scales based on empirical models.

These approaches remain relevant in the fusion context, but we also have a need for models with predictive capability at larger length and time scales. These models will need to work well beyond the limits of direct empirical validation and so must be largely physics based.

A note on **HTS**: Each of the preceding research areas specific chapters identify materials challenges in which modelling and simulation will implicitly play a role alongside experiment. Some of these chapters also explicitly identify particular modelling and simulation challenges. We do not duplicate the content here, instead identifying overarching challenges and solutions applicable across the range of fusion materials and systems.

In addition to modelling and simulation, we also include challenges related to the opportunities offered by artificial intelligence (many machine learning) and issues related to the collection, curation, storage and use of data in the development and deployment of materials for fusion.

39 Materials Roadmap United Kingdom Atomic Energy Authority

RADIATION HARDENED MATERIALS

A bird's eye view of rad-hard within Remote Applications in Challenging Environments (RACE) at UKAEA

Processing

- Now: Analogous and Distance
- Near: Analogous and analogue-to-digital
- Future: On board computing

Polymers

- Now: Polymers avoided
- Near: Characterised COTS Polymers
- Future: Specialty engineered polymers

Positioning

- Now: Resolver
- Near: Optical Encoder
- Future: Absolute Digital Encoder

Cabling

- Now: Copper cables
- Near: Rugged fibre optics
- Future: Wireless communications

Optics

- Now: Disposable Cameras
- Near: Rad hard Camera
- Future: Rad hard, readable 3D LIDAR

40 Materials Roadmap United Kingdom Atomic Energy Authority

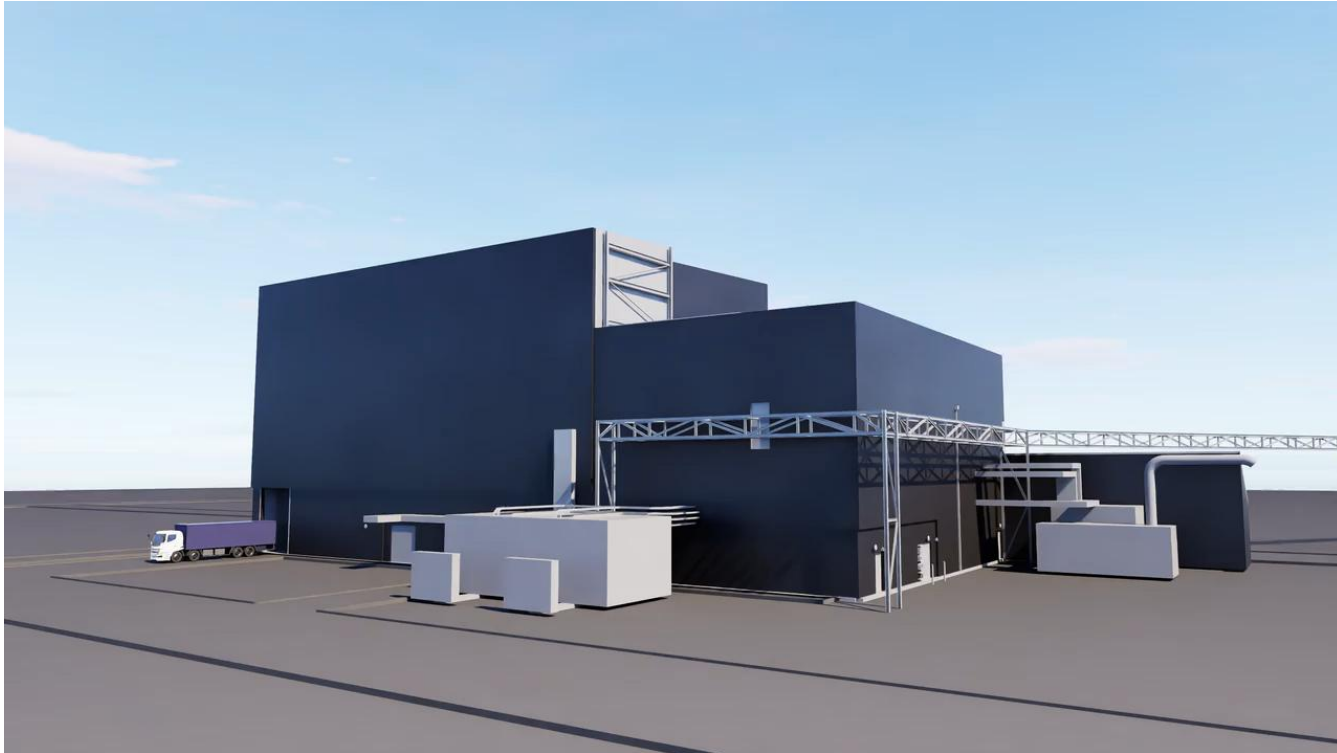
Available online: [uk-materials-roadmap-2-0.pdf](https://www.ukaea.uk/~/media/UKAEA/Files/2023/06/uk-materials-roadmap-2-0.pdf)



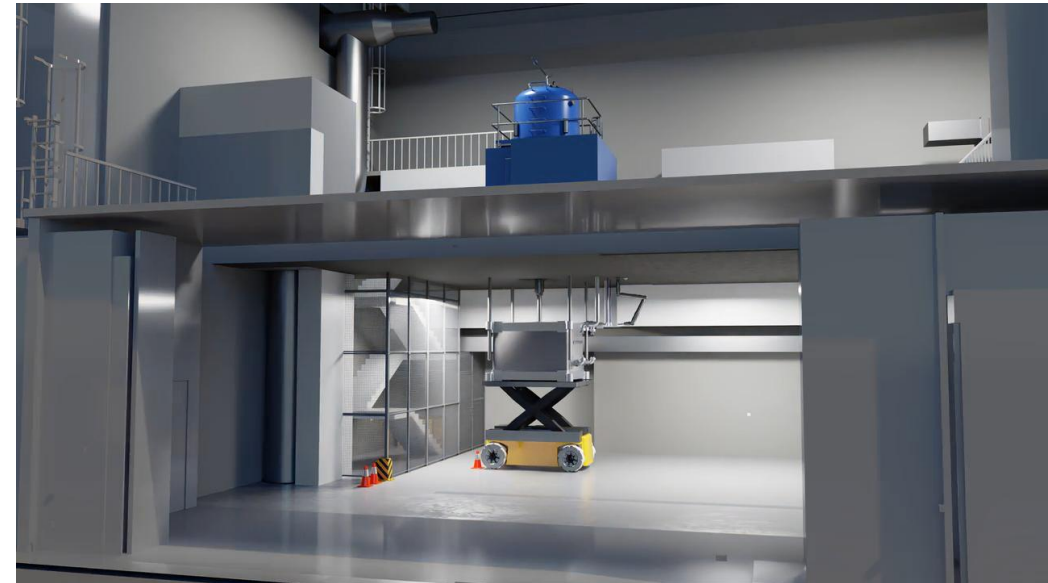
LIBRTI

Lithium Breeding Tritium Innovation

CONCEPTUAL OVERVIEW



Using Omniverse to envision, plan, design, optimise



DELIVERY PLAN

LIBRTI WORKSTREAMS

Facility

Research

Building

Neutron Source

Large Experiments

Feederstream work

Multiphysics Platform

Repurposed JET building on Culham Campus

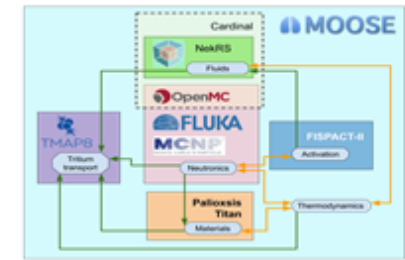
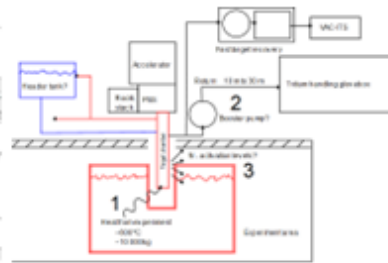
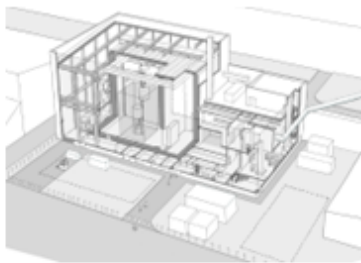
Balance of Plant: gas circuits, diagnostics, C&I, tritium abatement

14 MeV D-T high flux neutron generator with R&D to boost flux

Large breeder mock up designs for customers

Industry and academia projects - small breeder experiments and digital platforms

Tritium- and neutron-transport models, codes and code integration



LIBRTI OUTPUTS

LIBRTI: Building Capability and Growing the Supply Chain

Major Infrastructure Delivery

Capability Area	Value	Supplier
Construction and delivery of the LIBRTI facility	£34.1m	McLaughlin & Harvey Ltd

Technical & Equipment Contracts Awarded

Capability Area	Value	Supplier
Engineering & technical support	£49.9k	Amentum
Laboratory systems	£708.6k	Southern Scientific
Control & instrumentation systems	£518.2k	Underwoods Electrical Distributors
High-temperature materials testing	€460k	Copenhagen Atomics
Scientific equipment supply	£130k	Elemental Scientific Instruments Ltd
Instrument upgrade	£55k	Elemental Scientific Instruments Ltd

LIBRTI: Future Pipeline Opportunities

Workstream	Package Groups
EC&I	Control systems (DCS, ESD, fire & hazard); Facility networks and data systems; Monitoring, UPS and electrical distribution
Mechanical & Structural	Blockhouse structures and shielding; Mechanical handling and transport; Mock-up systems; Building equipment; External area design
Process & Diagnostics	Gas, vacuum and cryogenic systems; Cooling and water systems; Waste management (gas, liquid, solid); Safety diagnostics; Geometry mapping
Tritium Systems	Tritium and deuterium distribution; Detritiation and impurity treatment; Helium distribution; Fume hoods
Software & Other	Access control systems; Digital network; Control room; Miscellaneous equipment

Each package offers a distinct opportunity, from equipment supply through to full end-to-end delivery

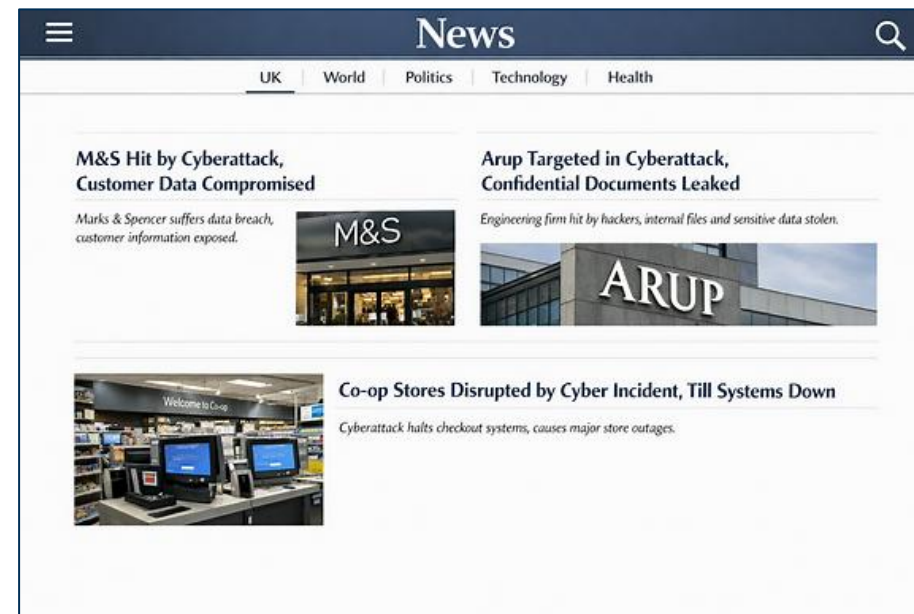
Strengthening Cyber Security

Justin Kingsford, COO

Strengthening Cyber Security

Why this matters

- High-profile cyber-attacks indicate c80% of cyber attacks originate via wider supply chain.
- This is a Team effort, UKAEA acknowledges that we all need to improve, and we are very keen to support and help enable your efforts, alongside our own.
- In conjunction with extant improvement initiatives, we have a Cyber Acceleration Programme that charts a course for UKAEA to achieve Cyber Essentials+ within 2 years, with shorter term improvements being introduced at pace.



Apr–Aug 2025	204 nationally significant cyberattacks handled by NCSC	Includes 18 “highly significant” cases affecting critical services
May 2025	Marks & Spencer suffers major breach	Customer data exposed, operations disrupted
June 2025	Arup targeted in deepfake-enabled cyber fraud	Internal documents leaked, \$25M lost
July 2025	Co-op Group hit by ransomware	Till systems down, £285M sales impact
Aug 2025	Jaguar Land Rover experiences cyber breach	Production delays and data compromise
Oct 2025	NCSC Annual Review warns of underestimated cyber risk	Urges FTSE 350 boards to prioritize cyber resilience



Supply Chain Cyber Security

Andrew Hynes, Director of Computing Operations

Cyber Essentials in Supply Chains



[Source: NCSC]

What is Cyber Essentials?



Cyber attacks are inevitable, and the consequences can be costly. That's why Cyber Essentials exists.

- Cyber Essentials is a UK government-backed certification that proves your organisation is protected against most common cyber threats.
- It is the minimum standard of security that the NCSC would recommend *every* organisation to achieve – regardless of size.
- The scheme is delivered by the NCSC – in partnership with DSIT – through the IASME Consortium, who manage a network of over 400 Cyber Essentials Certification Bodies.
- Implementing just five key controls **reduces risk, strengthens resilience**, and gives stakeholders **verified assurance** that an organisation prioritises cyber security and meets recognised baseline standards.



Cyber attacks come in many different forms, but the majority are basic in nature – the digital equivalent of a thief trying your front door to see if it's unlocked...

Cyber Essentials locks the door shut on these attacks.

Why Cyber Essentials?



- **Proven:** Cyber Essentials has been repeatedly proven effective against common, internet-based cyber threats.
- **Improve understanding:** Better understand and proactively manage the increased risks attached to digital growth with a clearer picture of your organisation's cyber security level – and the evidence required for the investment needed to improve it.
- **Confidence:** Gain confidence – for you and your customers – that your organisation is meeting the minimum baseline of technical cyber security standards, as defined by the National Cyber security Centre.
- **A good place to start:** 'A firm place to stand' when considering the complex and sometimes intimidating world of cyber security for the first time.
- **Free cyber liability insurance:** Cyber Essentials certification includes IASME's automatic cyber liability insurance for any UK organisation who certifies their whole organisation and has less than £20m annual turnover, including access to 24-hour crisis management and incident response helpline.
- **Continual Improvement:** Provides structure & motivation to understand, discuss (at board level) and continually improve cyber security defences. Cyber Breaches Survey found that organisations with CE are more likely to:
 - ✓ have board member or senior manager with specific cyber responsibilities
 - ✓ conduct training or awareness of cyber security
 - ✓ have a formal cyber security strategy and incident response plan in place

92%

fewer insurance claims are made by organisations with the Cyber Essentials controls in place

82%

are confident the controls protect against common cyber threats

85%

believe the scheme has directly improved their understanding of cyber security risks and (88%) the steps they can take to reduce them.

79%

believe it has a positive impact on customer confidence

71%

of Cyber Essentials users agree that the scheme has directly strengthened how seriously their organisation takes cyber security.

78%

would recommend certifying to other orgs like theirs

69%


believe Cyber Essentials has increased market competitiveness

95%

of customers would recertify to Cyber Essentials next year

Cyber Essentials in the supply chain



-  Cyber Essentials has been proven effective against common cyber attacks, including supply chain threats.
-  Cyber Essentials can play a significant role as an **assurance tool** and help address the challenges that many organisations face in securing and effectively managing their supply chain.
-  A new Supplier Check tool can help **quickly verify** whether all your suppliers have been certified (and to what level - Cyber Essentials or Cyber Essentials Plus).
-  Cyber Essentials provides a tangible way for organisations to **gain confidence** that their suppliers, or other third parties, have effectively implemented fundamental technical controls and that they are protected from the majority of untargeted, commodity attacks.
-  **Save time and reduce complexity** on cyber security due-diligence. Suppliers can also use Cyber Essentials as evidence across their customer base, reducing the time spent filling out duplicative questionnaires.
-  Any UK organisation with turnover under £20m that achieves Cyber Essentials (covering their whole organisation) is entitled to IASME's free Cyber Liability Insurance, giving assurance that suppliers have access to a **professional incident response capability** during an incident.

Case study: With the financial services sector facing an evolving cyber threat, one the UK's largest pensions & life companies asked its partnership network of over 2,800 independent business to certify to Cyber Essentials Plus.

In such a large supply chain this had its challenges, but the decision is already showing a positive impact.

“ Security incident numbers have significantly reduced... we have seen around 80% reduction in cyber security incidents, which directly correlates to controls and best practice implemented through Cyber Essentials. ”

“ We recognise the position we have within the supply chain in the UK, and the positive impact we have experienced with Cyber Essentials. ”

Matthew Smith, Divisional Director of Cyber Security, St James's Place

Resources

Cyber Essentials Scheme Documentation: [Cyber Essentials | National Cyber Security Centre - NCSC.GOV.UK](#)

IASME Website: [Cyber Essentials - Cyber Essentials](#)

Cyber Essentials Readiness Tool: [GetReadyForCyberEssentials](#)

Find a Cyber Advisor: [Free Advice - NCSC Cyber Advisor](#)

Why Supply Chain Cyber Security matters: [The 2026 Connected Supply Chain Cyber Threat \(Falcon Eye 360\)](#)

Coffee Break

See you back at 11:50

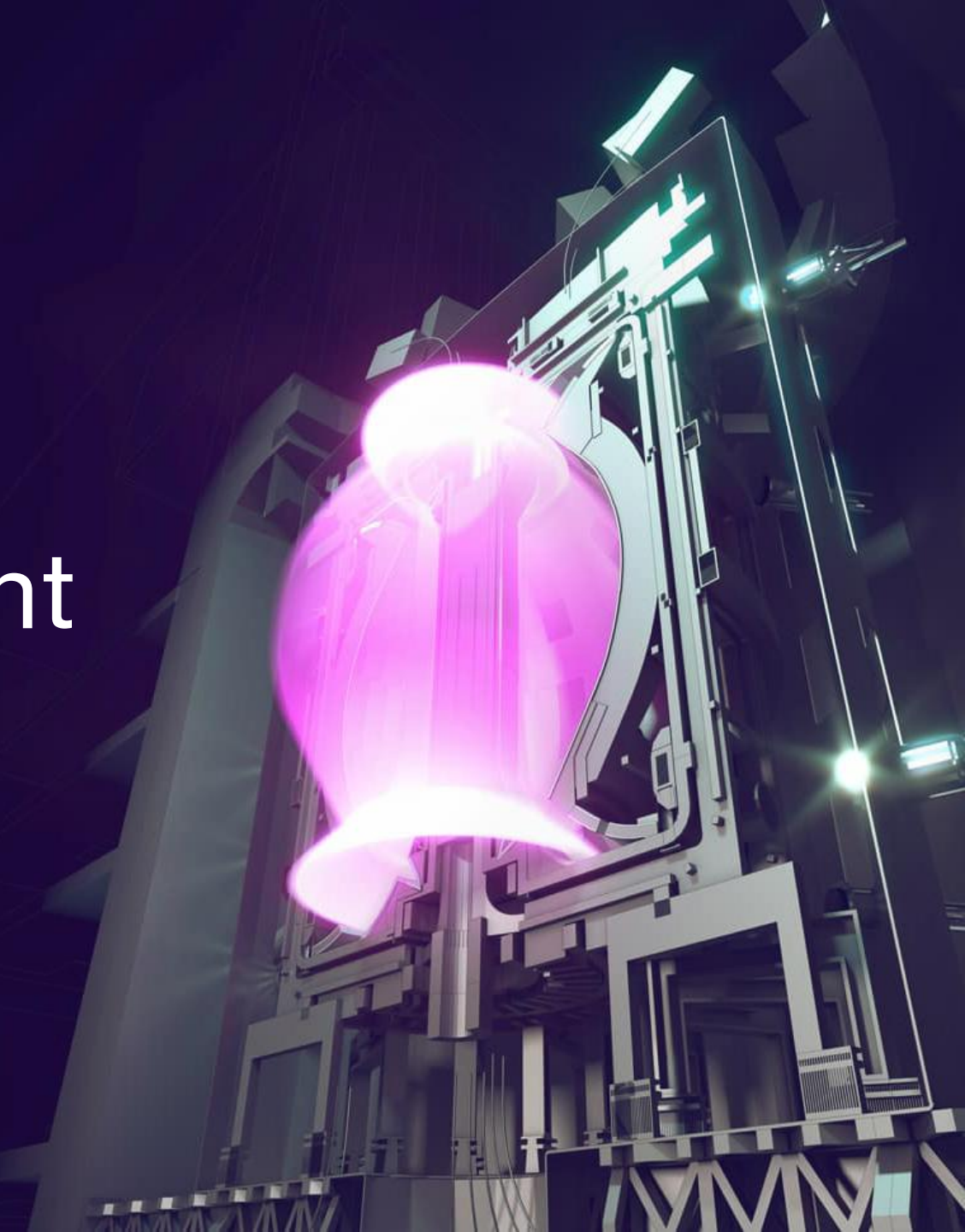


STEP Fusion: More Than A Power Plant

Possibility to Reality; A National Mission

Sho Dutta

Commercial Director, UKFE Ltd



MARCH 2026



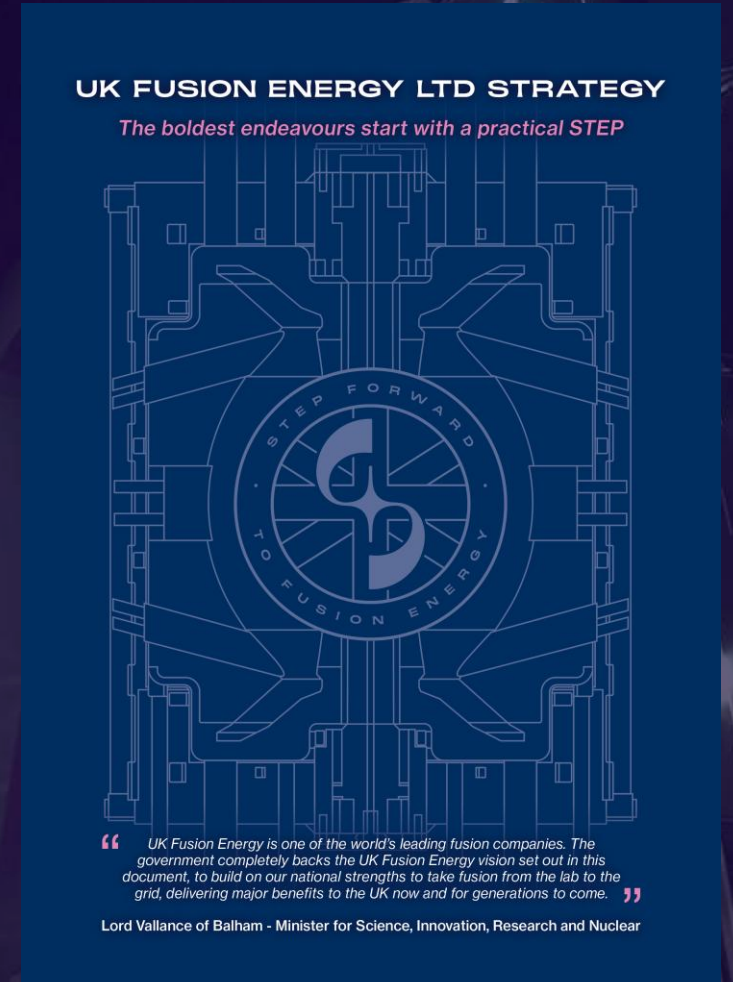
Delivery through 2030

APRIL 2026



2026-2030

APRIL 2026



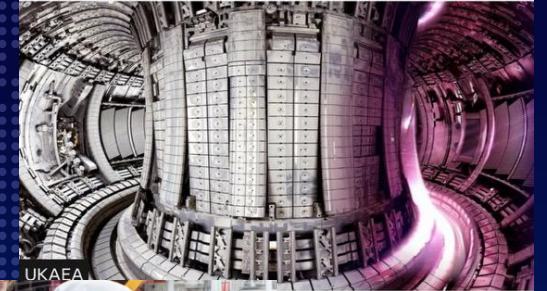
2026-2040

From Lab to Grid – Industrial Growth Focus

Increasing confidence and investment

- Increasing international focus (US, China, EU, UK, Korea, Japan) on energy market estimated at **£3-12 trillion**
- Private investment **c. £13 Bn**, most in recent years (over 50% US, 34% China and rest Europe and others).
- Significant mergers, public-traded companies and power-purchase agreements starting to emerge, with values in **£ hundred mullions**
- Key part of UK governments energy, R&D and industrial growth plans with **£2.5Bn** over 5-years in SR25.
- UK has many advantages, inc. lead on R&D, enabling regulatory regime and cross-party support. EA and HSE already engaged with STEP Fusion.
- New UK Fusion strategy – *Lab to Grid* - fusion is a priority industrial growth sector, accelerating commercialisation to secure value.
- From R&D possibility towards commercial reality at increasing pace.

Fusion energy industry gets **£2.5bn** funding boost



Director at Culham in
Commissioned last year

A New Energy Revolution

The UK's Plan for Delivering Fusion Energy

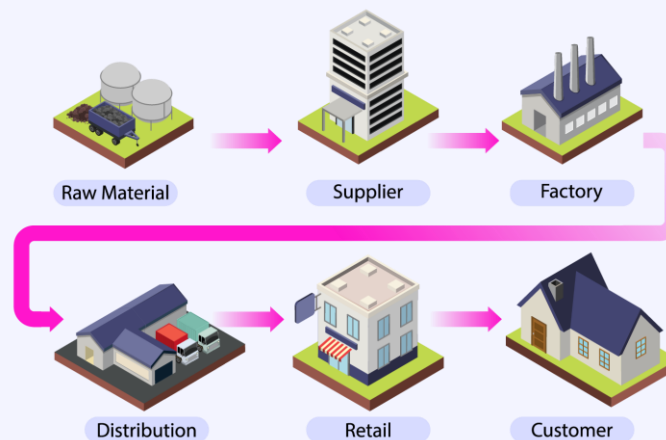
March 2026



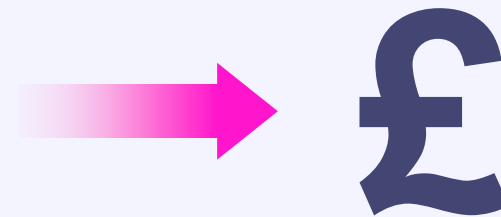
More than just a prototype...



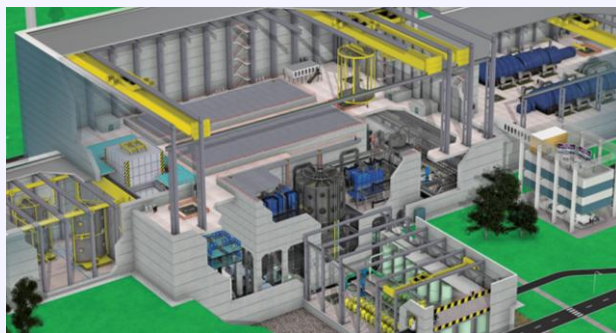
SOCIAL VALUE
Skills, jobs, investment,
regional infrastructure



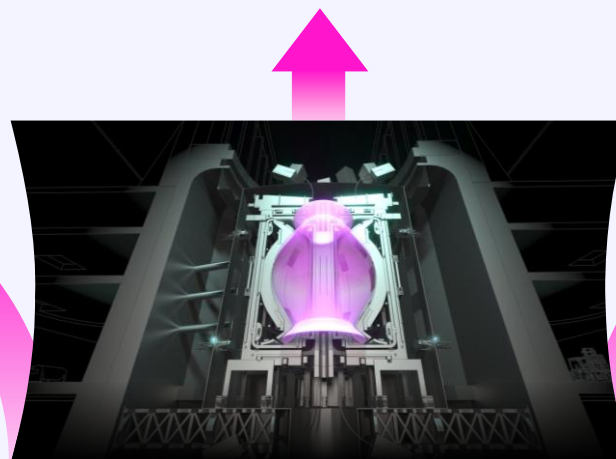
INDUSTRIAL STRATEGY
Supply Chain



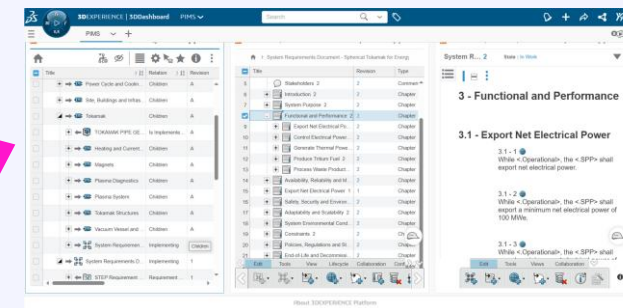
UK ECONOMIC VALUE
Exports, contracts, spin-offs



GLOBAL FUSION FACILITY



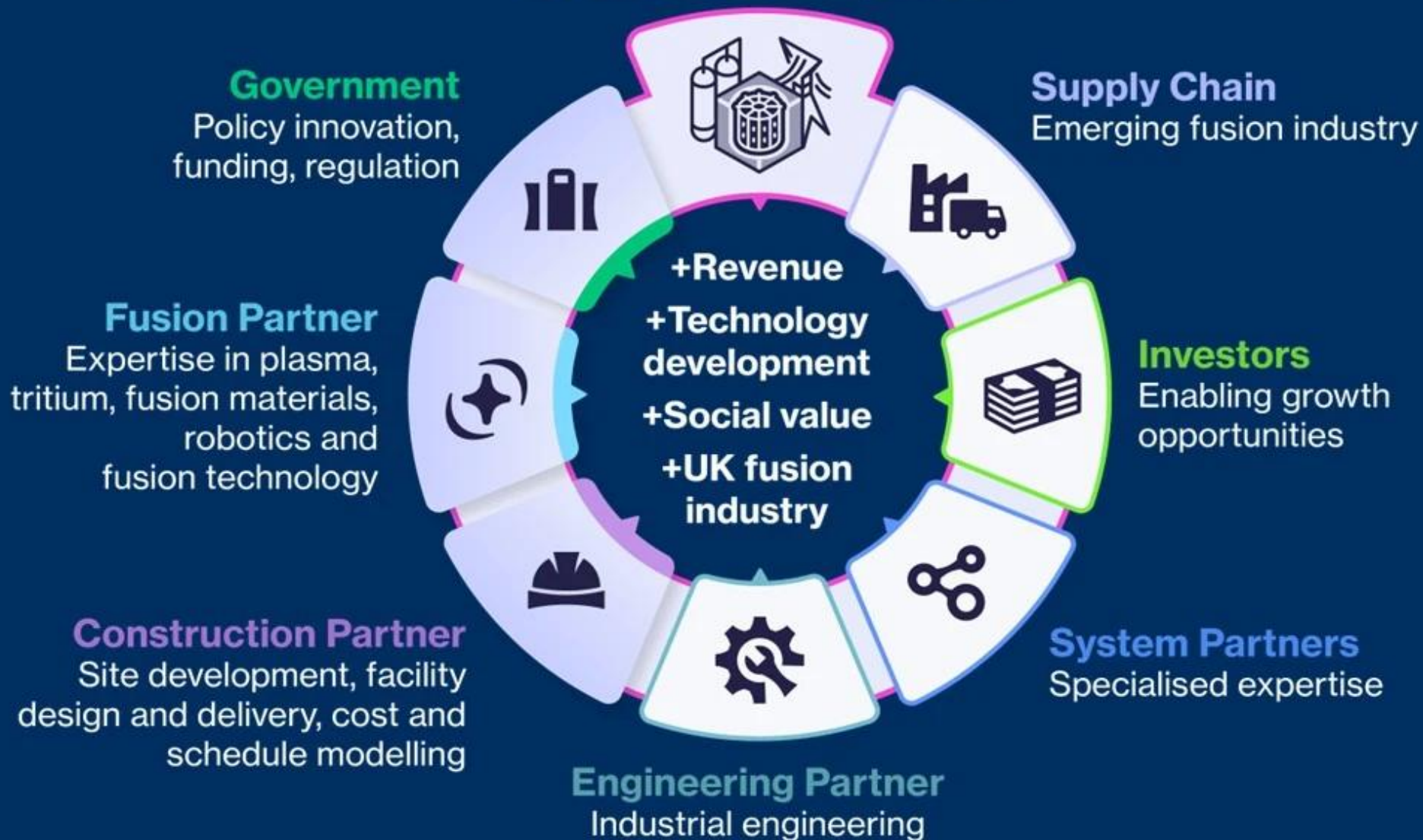
POWER PLANT DEMONSTRATION



INFORMATION BASELINE

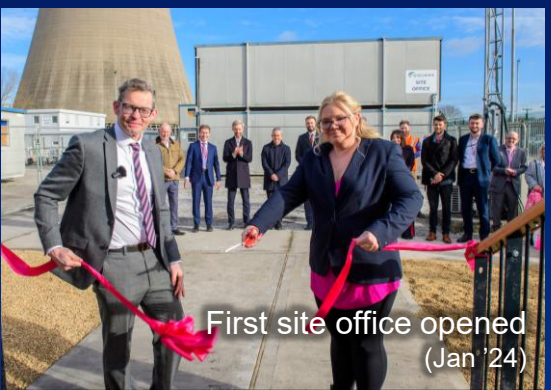
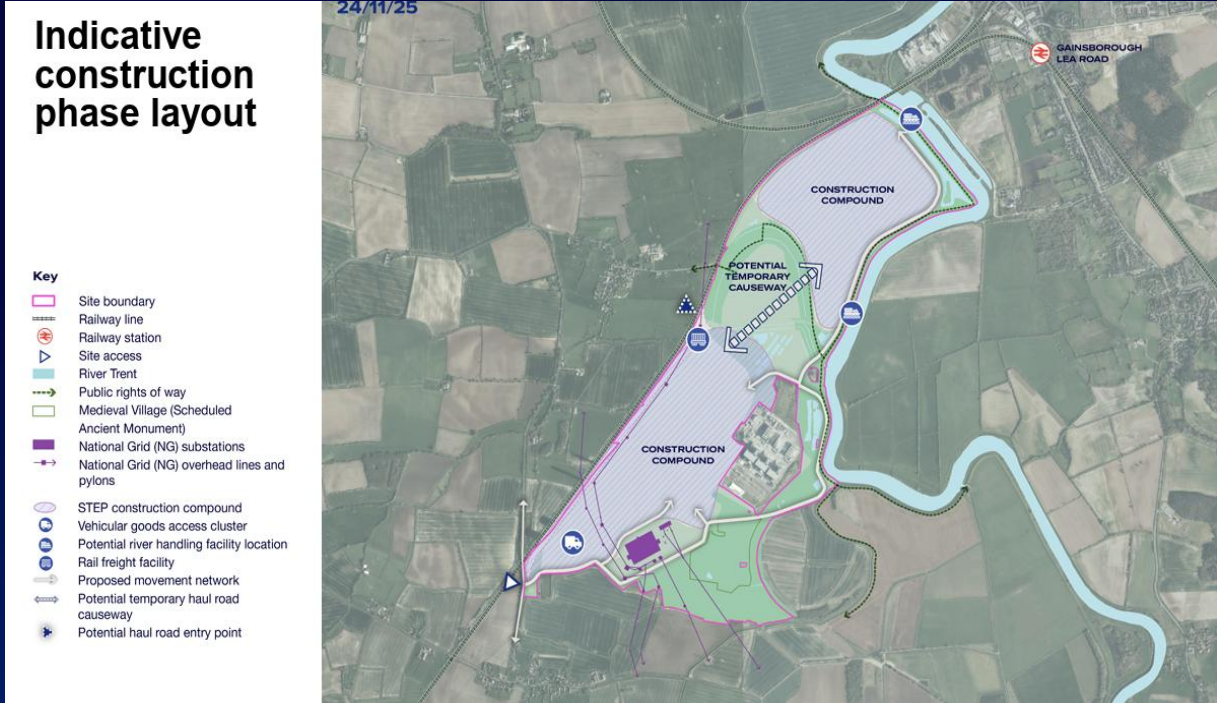
Whole Plant Integrator

Intelligent client co-ordinating innovation to deliver value for all partners



Developing the Site at West Burton

Fossil to Fusion in Action



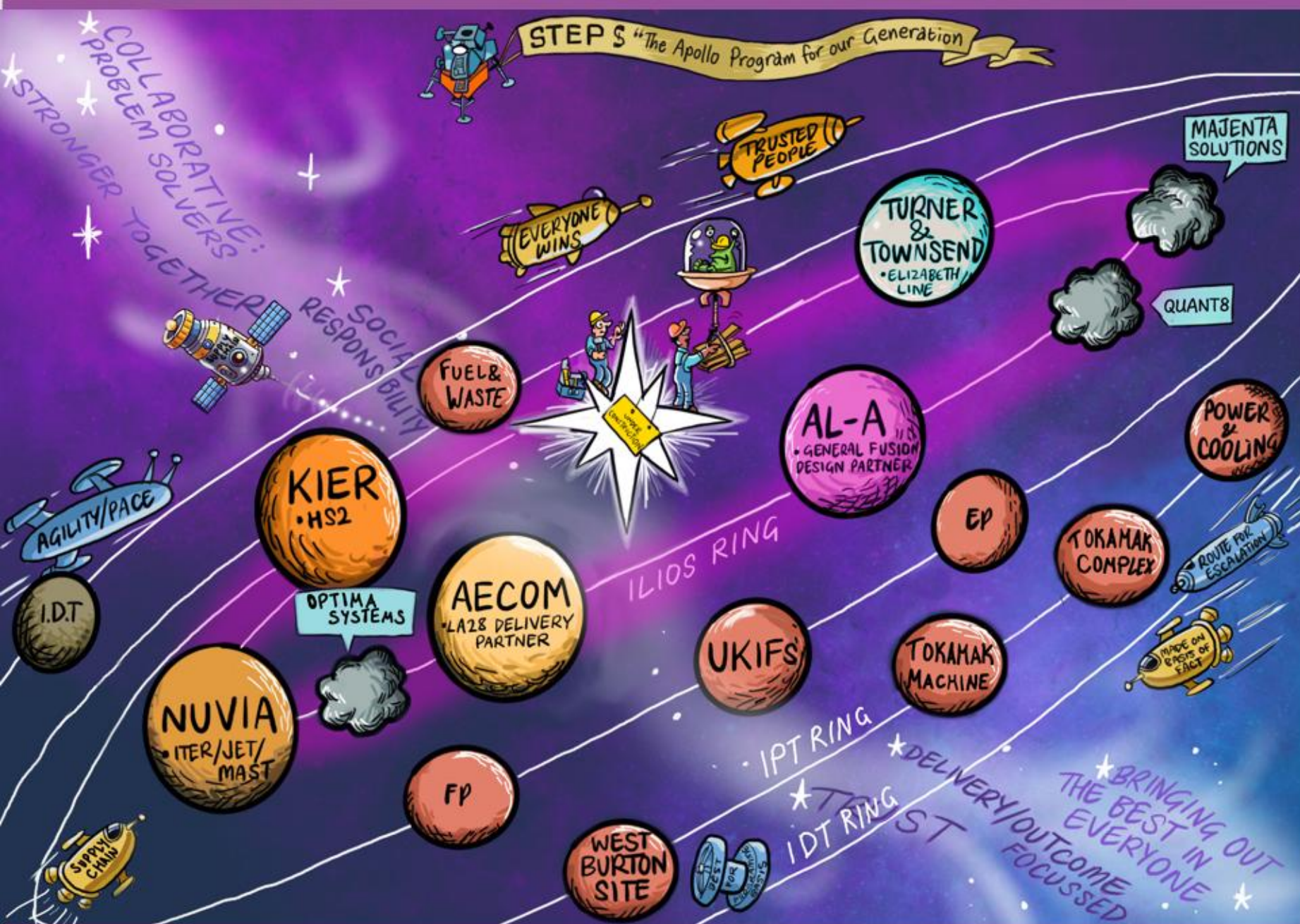
2024

1

2025

2026

2



ILIOS

(derived from Greek *hēlios*) primarily refers to the sun, representing the sun deity in ancient Greek religion.

Kier Nuvia (50/50) joint venture supported by consortium partners:

- AECOM
- AL_A
- Turner & Townsend

and strategic suppliers

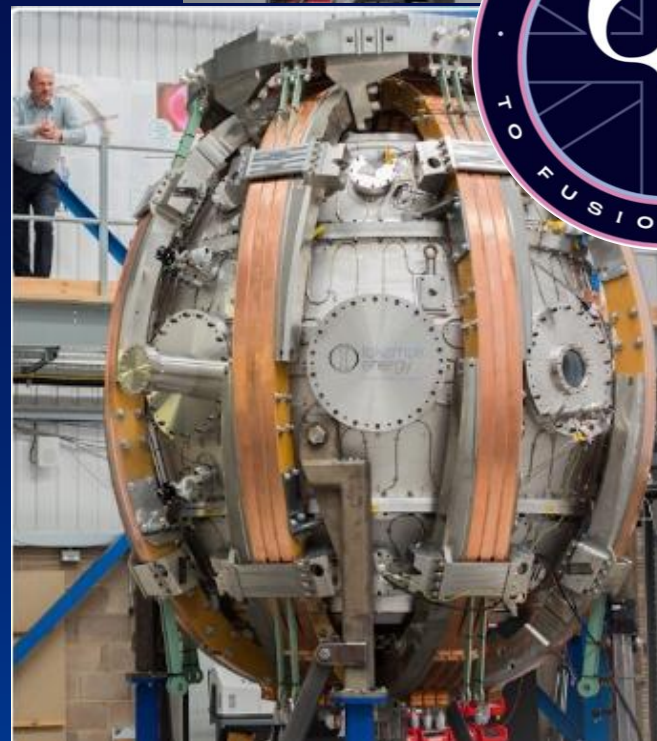


UKFE – Tokamak Energy STEP Magnets Partner

UKFE has partnered with Tokamak Energy to deliver critical HTS magnet development and testing for the STEP programme.

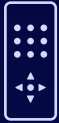
This is the first of a series of System Partner agreements, marking a key milestone for STEP and the UK fusion industry, establishing the foundation for future partnerships.

The contract will advance critical fusion technologies, support integrated system development, and drive UK capability and supply chain growth, strengthening the UK's position as a global leader in fusion energy.





System Partners -Forthcoming Opportunities



- **Controls**



- **Test Operations**



- **Digital (short and long term)**



- **Fuel Cycle**



- **Product Development**



- **Breeder Blankets**

- **Systems Engineering capability**

UK Fusion Energy will soon be engaging with the market to identify system partners – industry leaders who will work with UKFE, FP and CP teams to drive delivery of key systems, technologies or capabilities needed by the programme.

These opportunities offer organisations the chance to lead critical elements of the programme and play a central part delivering and shaping the UK's fusion future.

Those involved in developing STEP will be exceptionally well positioned to deliver the future fleet of commercial fusion plants.



Safety, Health Environment and Sustainability

**Suzie Melvin, Head of Safety, Health and
Environment**

Key UKAEA Safety and Health Priorities 26/27



SIMPLIFICATION
OF PROCEDURES



SHE COMPLIANCE
MONITORING



CONSTRUCTION
(DESIGN AND
MANAGEMENT)



CONTRACTOR
SAFETY FORUM



WORK RELATED
STRESS SURVEY

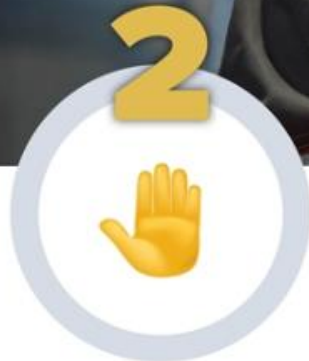
Working Safely Together



UKAEA Site 5 Golden Rules



Work safely at all times



Speak up if something doesn't look safe



Treat everyone with respect

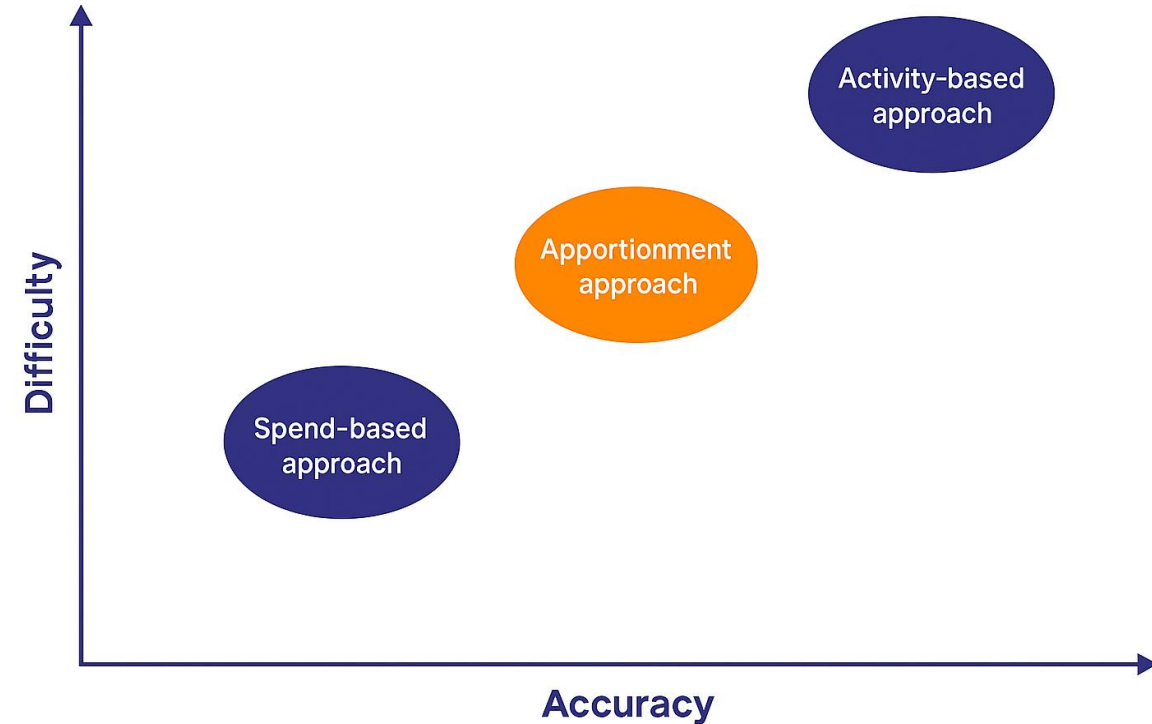


Drive, park, cycle and walk carefully



Stay home if you're unwell and may infect others

Carbon Reporting Tool



Spend-based approach:

Emission based on how much UKAEA spend on suppliers.

Activity based approach:

Emissions by using real data from suppliers about specific projects.

Apportionment approach: Supplier's actual emissions apportioned by Clients % of their turnover.

Carbon Reporting Tool

Carbon report

- Transport ✓
- Fossil fuels ✓
- Fugitive emissions ✓
- Electricity ✓
- Materials ✓
- Waste ✓
- Water ✓
- Remote working ✓
- Other Emissions ✓
- Policies/Strategies ✓
- Company information ✓

Please provide details of travel in company owned vehicles, public transport, and third party vehicles (where you do not directly pay for the fuel, including employee commuting). To avoid double counting, do not report any mileage data if you have already entered the corresponding fuel consumption data in the fossil fuels tab. All our emissions calculations use the UK Government greenhouse gas reporting conversion factors and are updated annually. We include well-to-tank and transmission and distribution emissions in these calculations.

Metric	Units	Value	Comments	N/A	Past data
▼ Company Transport					
Diesel Car (Miles)	Miles	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
Petrol Car (Miles)	Miles	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
Petrol Van (Miles)	Miles	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diesel Van (Miles)	Miles	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diesel HGV, average laden (miles)	Miles	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
▼ Do you have travel data to report for other types of company-owned vehicles?*	Yes	N/A	No	<input type="text" value="If 'YES' select the relevant forms of company transport"/>	
▼ Do you have any travel data to report in litres INSTEAD of km/miles for Company owned vehicles?	Yes	N/A	No	<input type="text"/>	
▼ Third Party Transport					
Diesel Car (Miles).	Miles	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
Petrol Car (Miles).	Miles	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diesel HGV, Average laden (miles).	Miles	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diesel Van (Miles).	Miles	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
Petrol Van (Miles).	Miles	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
▼ Do you have travel data to report for other types of third-party travel?*	Yes	N/A	No	<input type="text" value="If 'YES' select the relevant modes of transport"/>	

How the platform supports our suppliers

- **End-to-end support to help suppliers build capability** and accurately measure and report carbon emissions
- **Unlimited data sharing** – your carbon reports can be reused across multiple customers
- **Creates a cascading effect**, enabling engagement across multiple tiers of the supply chain
- **Simplified and standardised reporting**, reducing complexity and duplication
- **No additional cost** to participate
- **Streamlined, time-efficient process** designed to minimise administrative burden
- **Supplier empowerment** – you retain ownership of your data and can independently submit your raw emissions metrics

Contact alwin.varghese@ukaea.uk for further information





UKAEA

JET Decommissioning and Repurposing: Overview

Zac Scott, Director of JET Decommissioning and Repurposing

SR25 – turning funding into practice

DESNZ (the Department) & HMT (the Treasury) has approved tranche 2 funding



23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35	35/36	36/37	37/38	38/39	39/40	40/41
Tranche 1			Tranche 2				Tranche 3				Tranche 4			Tranche 5			

J5 36KV



J51



J3&31



IVD PREP



WASTE PREP



Scale of challenge

The JET estate



J4 clearance



JDR Management Framework update

- Background to Management Framework approach
 - Onboarding critical skills shortages
 - Max 4 yrs and/or max spend £9.99m
 - Closed framework
 - 22 fixed lots
 - 7 suppliers on framework; not all allocated to every lot
- Congratulations to Awarded Suppliers



The six strategic questions



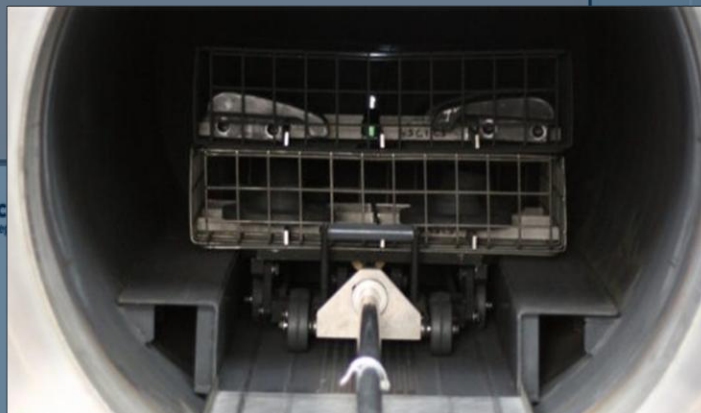
Fully decommission JET or partially decommission then care & maintain?



Actively repurpose J1 assets or defer to main deplant phase?



How much Intermediate Level Waste to detritiate versus decay store?



Detritiate Intermediate Level Waste in-situ or ex-situ??



Build new waste facilities, or repurpose existing buildings for packing & consignment?



Demolish or repurpose J1 & J25 at the end of JET decommissioning?

Document No: <Insert Doc Number>
Drafted: Steve Gilligan
Reviewed: Laura Thorne
Approved: <Insert Name>

The scope, schedule and costs of a potential restart after an extended C&M period is undefined

& M post Tr. 4

to demolish J1
demolish J25

Option – design & construct new facilities

repurpose J1 & J25?

Option – prepare to repurpose J1 / J25

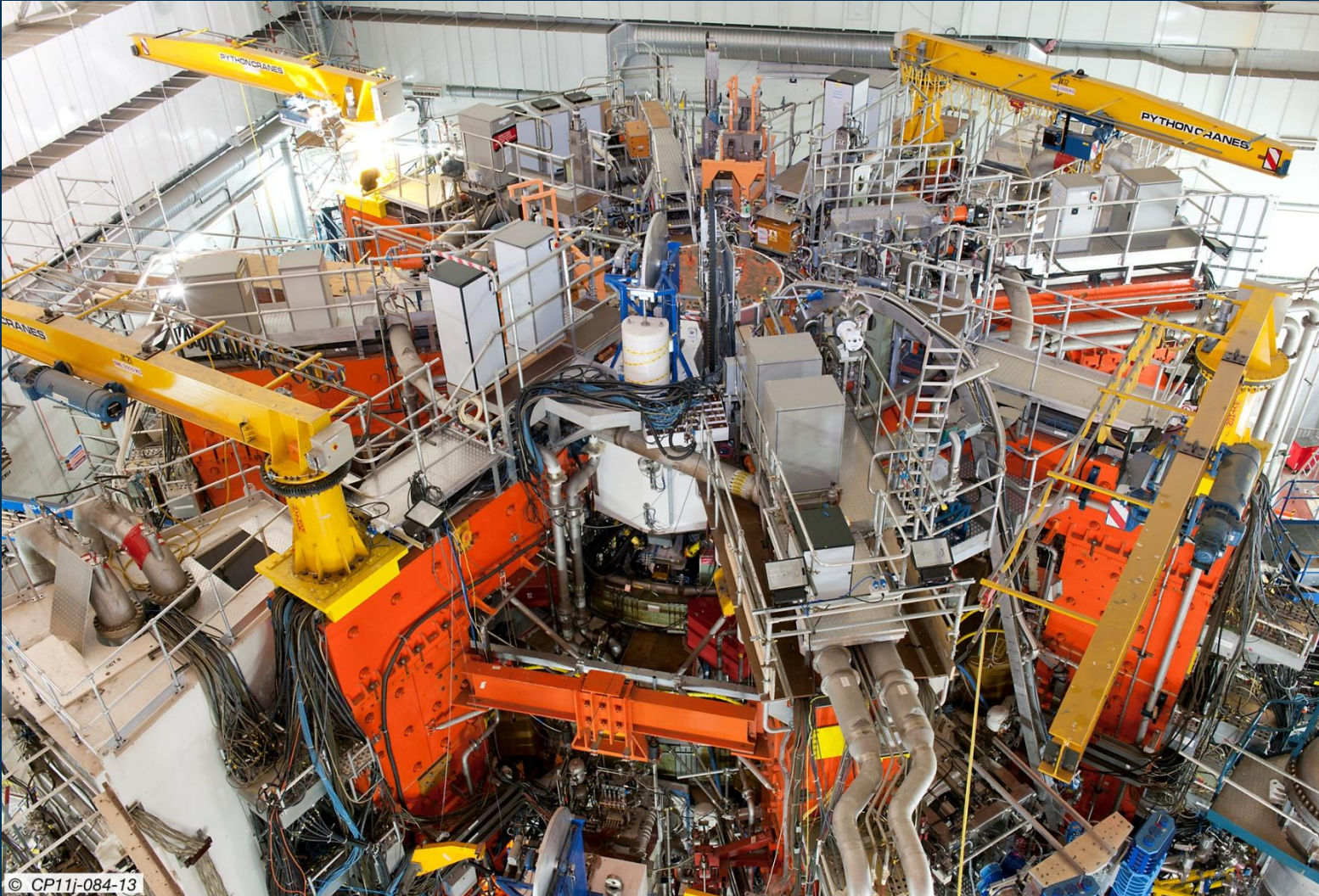
DECISION to
demolish or
repurpose J1 & J25?
Tranche 6 FBC

the ILW

Option – detritiate the remaining
ILW ex-situ

remaining ILW in-situ
or ex-situ?
Tranche 3 FBC

Would you like a guided tour of JET?



2 x groups up to 30 people

Time slots

Group 1: 1500-1530

Group 2: 1540-1610

To register and more info

Visit the JDR exhibition
booth before **1430**



RAICo

Pete Gillham, Head of Operations ARC Division and RAICo

Robotics, Repurposing and Decommissioning Directorate (RRDD)

Robotics, Repurposing and Decommissioning Directorate (RRDD)
Executive Director - Rob Buckingham



Director – Nick Sykes

Engineering design, development and operations for fusion relevant systems

ARC

AI and Robotics Collaborations



LongOps, CROSS, ACORN

Director – Kirsty Hewitson

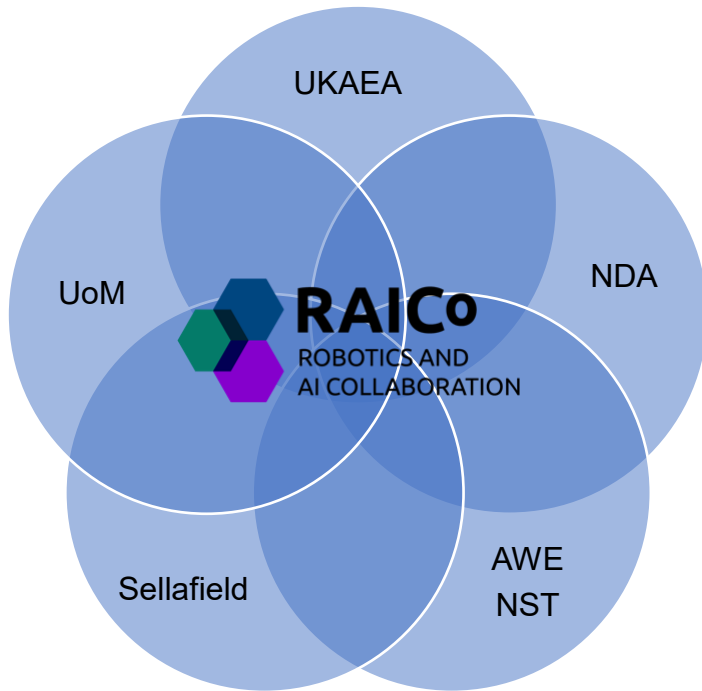
End user led collaborations to enable widespread adoption of robotics and AI into nuclear operations

Robotics Research and Technology (RRT)

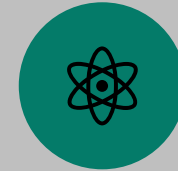
Robert Skilton

Developing new knowledge and capability in support of the core fusion mission
Connecting knowledge and capability across the directorate

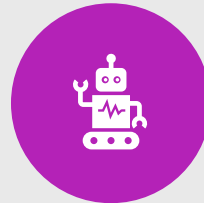
RAICo overview



RAICo IS AN **END USER LED** ROBOTICS AND AI COLLABORATION



RAICo brings **TOGETHER NUCLEAR DECOMMISSIONING AND FUSION ENGINEERING** FOR MUTUAL BENEFIT



OPERATIONALISATION OF 'THIS GEN' ROBOTICS INTO THE NUCLEAR SECTOR



DEVELOPING REMOTELY OPERATED SOLUTIONS FOR DECOMMISSIONING



DEVELOPING INTELLIGENT CUSTOMER AND SUPPLY CHAIN CAPABILITY AND CAPACITY

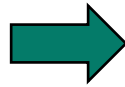


SOCIO-ECONOMIC IMPACT IN CUMBRIA

Facilities

RAICo1 at Whitehaven - Cumbria

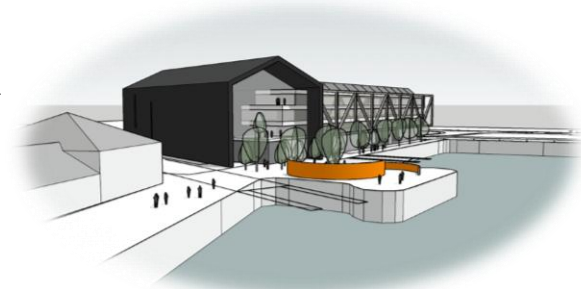
RACE and F4
at UKAEA,
Oxfordshire



The Bus Station



Planning for an
additional **robotics and
AI facility** in Cumbria

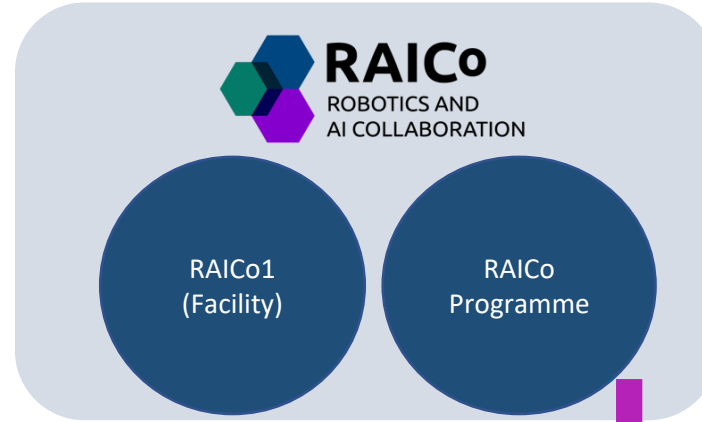


RAICo2

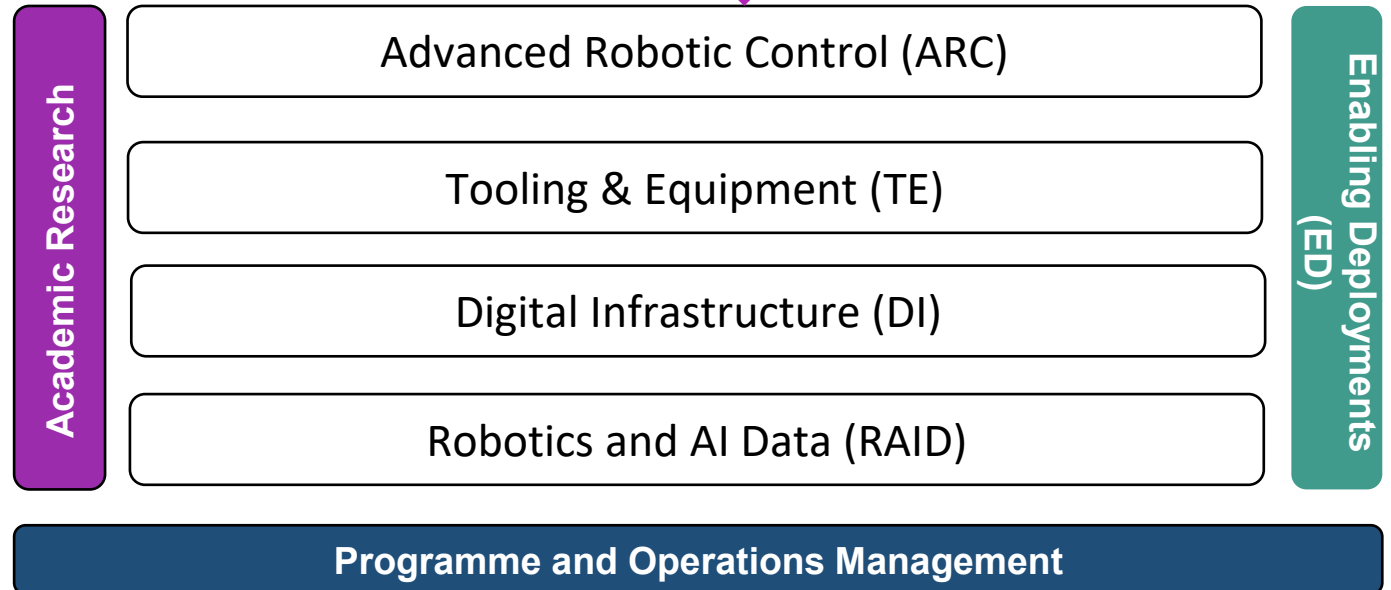
RAICo Programme

RAICo Programme

Seven themes focussing on addressing shared challenges and the key operational needs and goals of nuclear decommissioning and fusion engineering end users.



Programme Theme Structure



RAICo Technology Examples

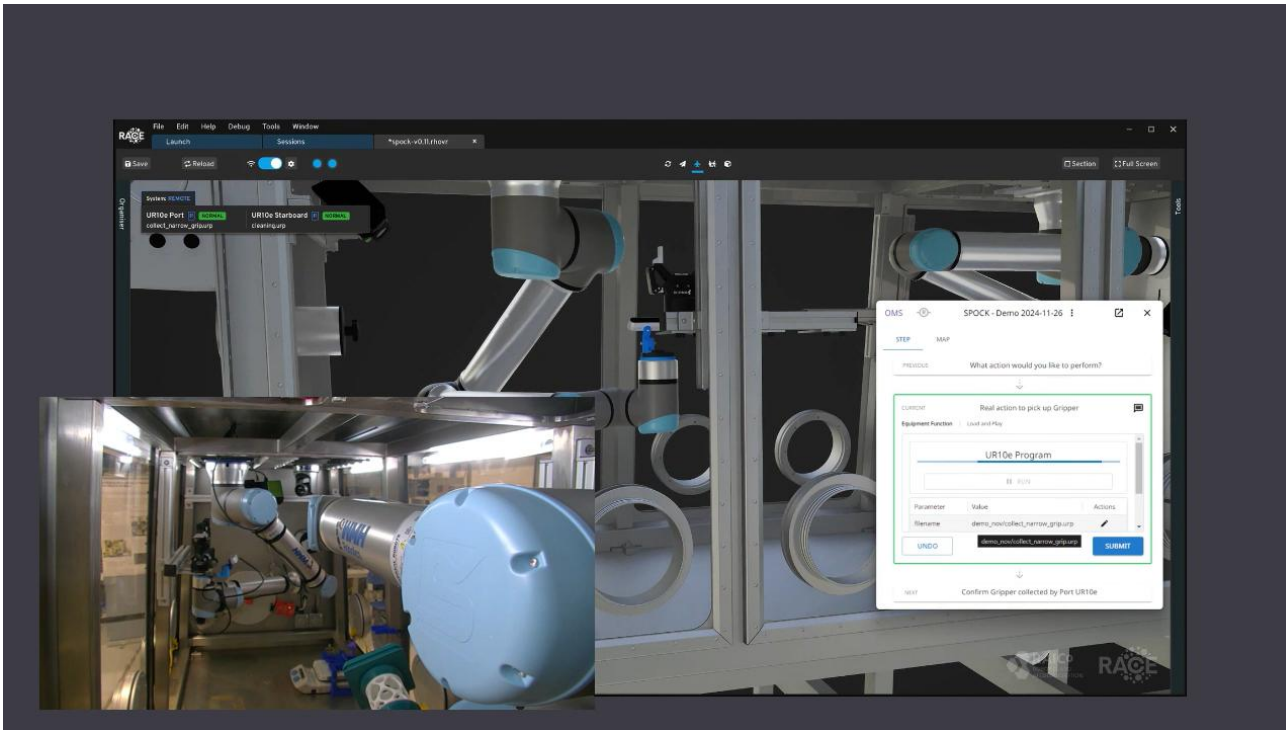
Robotic Glovebox - RoBox



RoBox

- Remote operations enabling hands out of gloveboxes.
- Enables safe, repeatable operations.
- Developed in partnership with industry over the last five years.

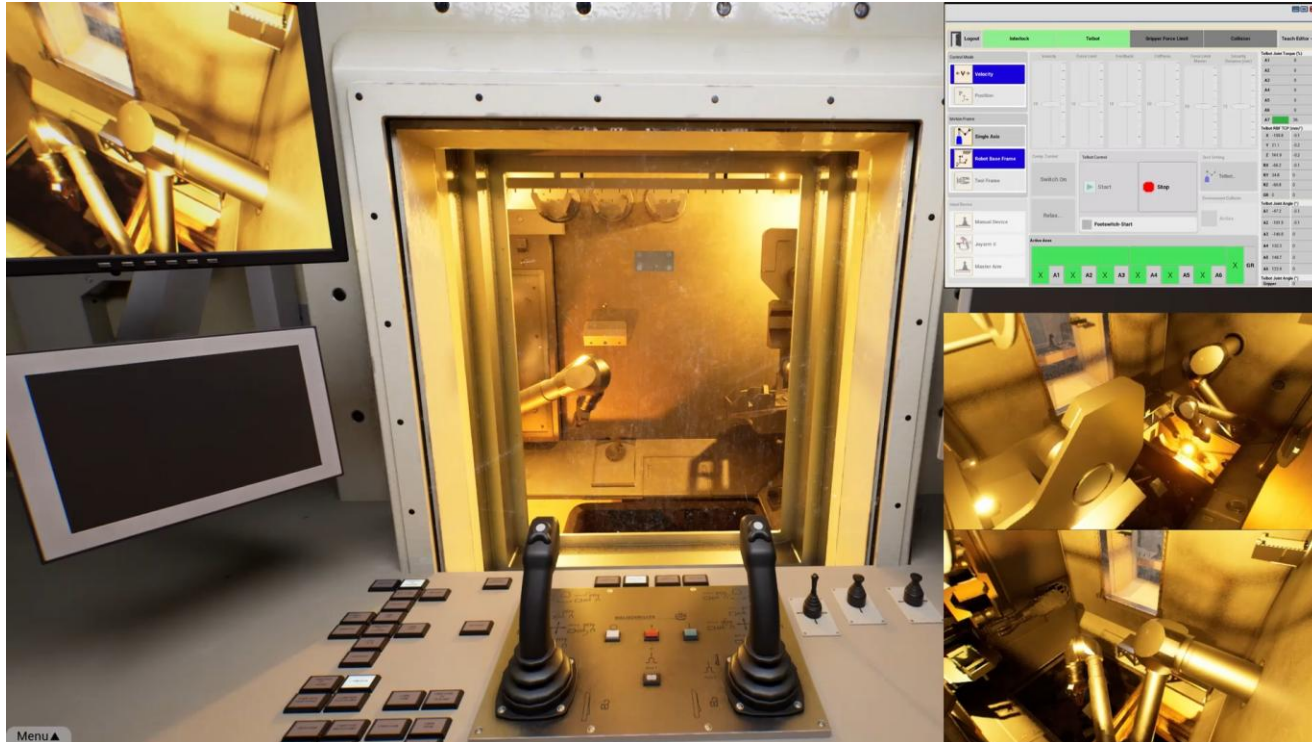
Digital twins - SPOCK



Single Point Operator Control Kit

- Combining legacy capability from JET remote operations with software expertise from industry.
- Recreation of real-environments for training and operations planning.
- Supporting the concept of centralised control room operations.

MSSS Simulator



Magnox Swarf Storage Silo Simulator

- Simulating the sort and segregation of waste at the MSSS.
- Enabling high value assets at the MSSS to remain in operations.
- Providing operators with a realistic, safe and risk-free training environment.

Remote, haptics-enabled health physics swabbing

Non-active to active environment trials



The development and deployment of Spot to autonomously deploy, collect and retrieve samples within an active environment for emergency or pre-planned routine tasks.

Haptics and digital shadow development



Supporting training and the effective control of Spot during operations.

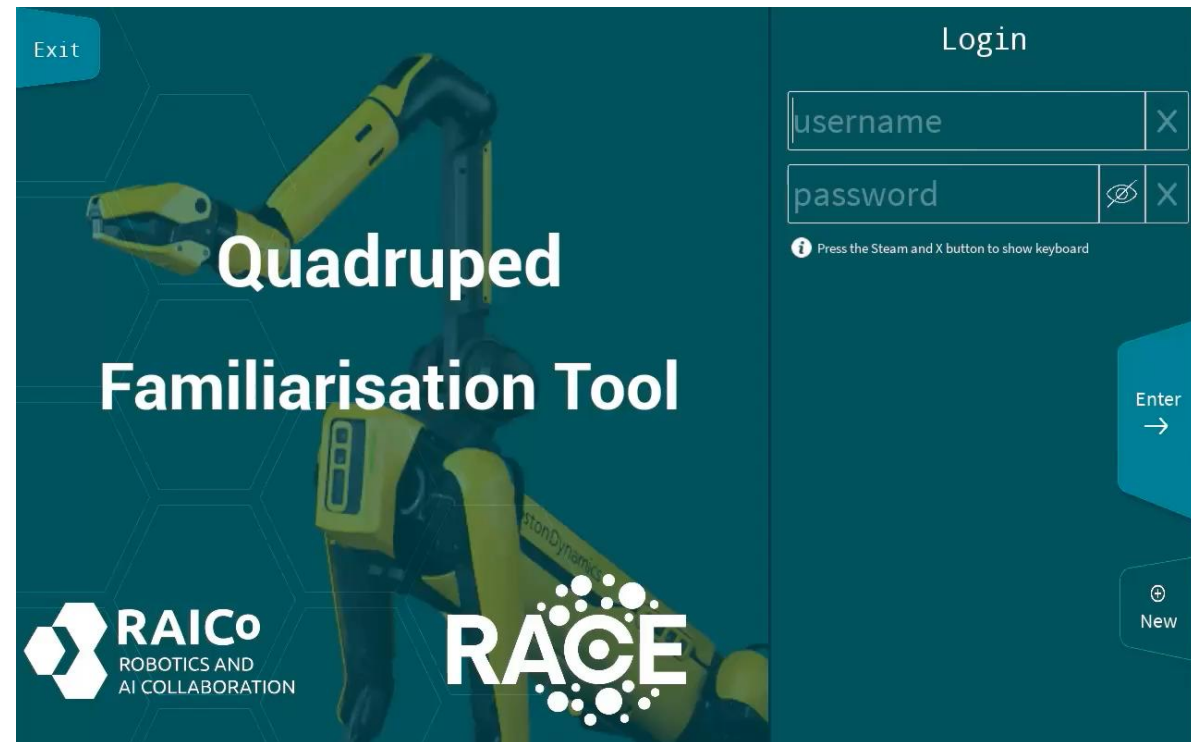
Spot tooling and Spot training



The **Quadruped Familiarisation Tool** is a handheld interface for training and familiarising both novice and experienced operators in the operation of the Spot robot without the need of the physical robot.

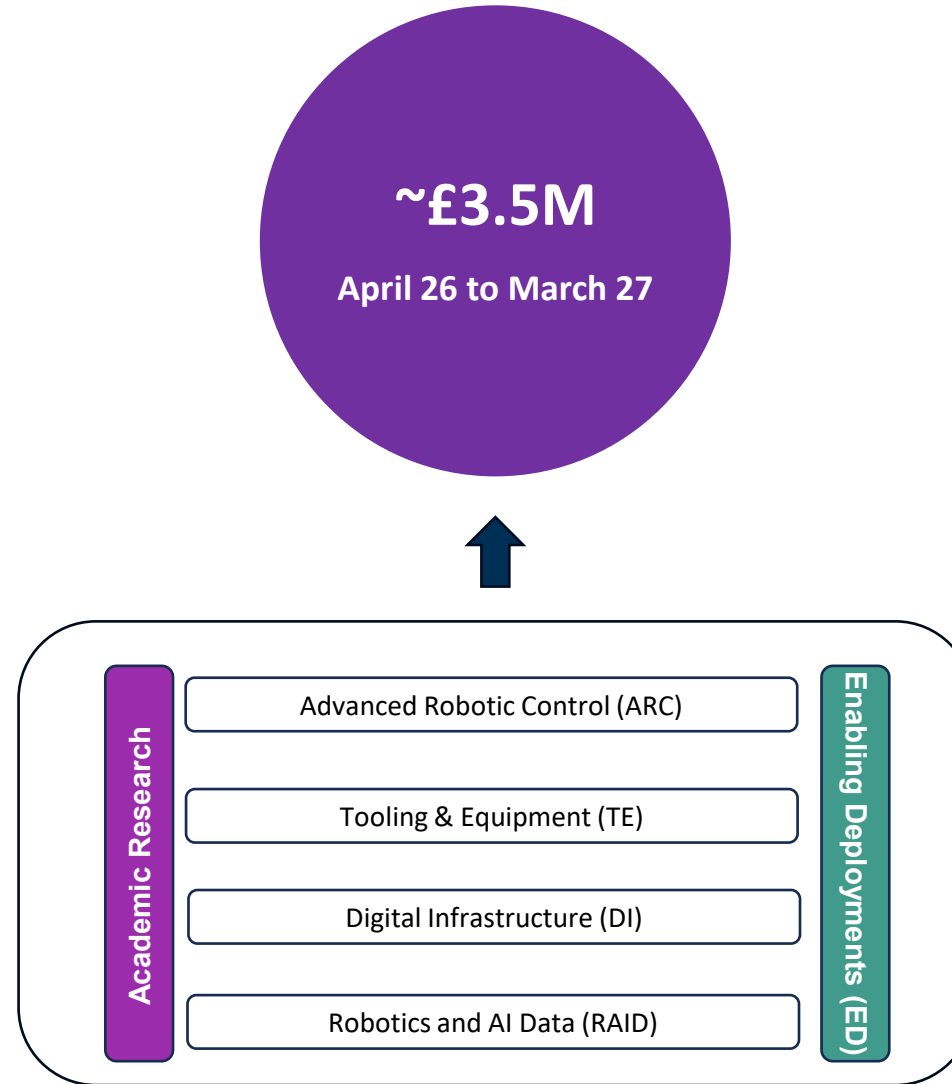


QFT on a Steam Deck



RAICo Programme this FY 2026/27

The RAICo programme team looks forward to continued collaboration with industry and academia over the next year and beyond.



Target 50% of budget / ~£3.5M is expected to be awarded to industry and academia this FY.



Thank you





UKAEA

Commercial updates and closing remarks

Paula Barham, Director of Commercial

Commercial Function Key Objectives

1. Challenge and innovate – Review and enhance commercial and procurement strategies to deliver organisational value
2. Customer focus – Build processes that drive satisfaction and ensure compliance across the commercial lifecycle
3. Strengthen infrastructure – Improve systems for effective management of all UKAEA commercial activities
4. Drive continuous improvement – Foster innovation and alignment with Government Functional Standards
5. Embed procurement reforms – Implement Public Procurement Reforms with training and full stakeholder support

Structure Updates

New roles:

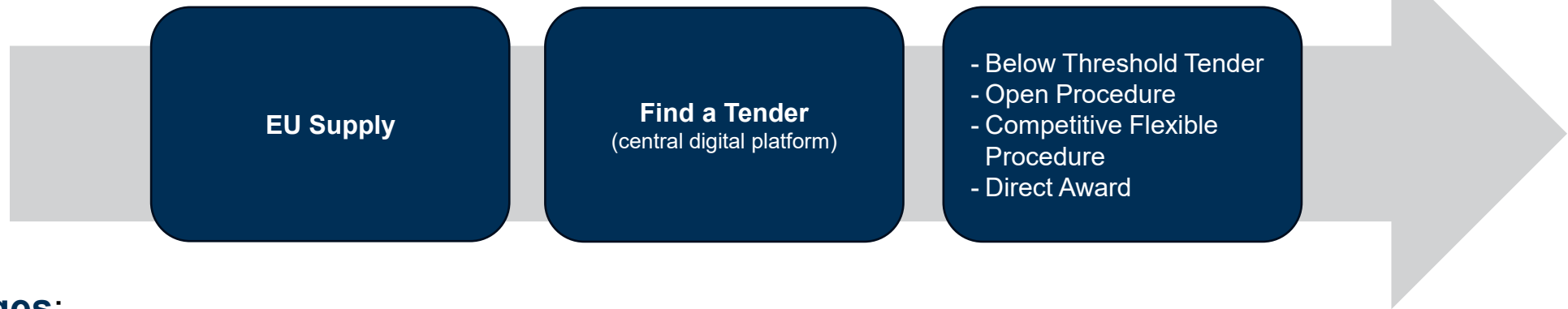
- Carl Evans, Head of Commercial Projects & Programmes

- Emma Davies, Head of Commercial Operations



Procurement Act 2023

As of February 2025, we have been governed by Procurement Act 2023



Key Changes:

- **Introducing the central digital platform, enhanced Find a Tender** – a single platform for procurement opportunities, notices and other information – suppliers must register.
- **New Procedure – Competitive flexible procedure** combines multi-stage procedures under PCR15 into one, allowing for significant flexibility in planning stages into a procurement.
- **Publishing Requirements** – increased notices for more transparency, now throughout the life cycle of the procurement/contract
- **Debarment Regime** – suppliers who violate the law and have repeated poor performance will be barred from bidding for public sector contracts

Key Principles:

- Delivering value for money
- Maximising public benefit
- Transparency and the sharing of information
- Acting with integrity
- Reducing barriers for SMEs

BETA [Contact the Find a Tender team \(opens in new tab\)](#) if you have feedback, questions or suggestions

Find information on UK public procurements and contracts

Find a Tender is where public sector buyers publish notices about procurements and contracts that suppliers can search and apply for.

[Search >](#)

How you sign in to Find a Tender has changed

You'll need a GOV.UK One Login to sign in to this service. You can create one if you do not already have one.

You can save searches and get notification emails. You must sign in before registering a buyer or supplier organisation.

[Sign in with One Login](#)

Central Digital Platform = Enhanced Find a Tender

Since Feb 2025 Find a Tender has been relaunched as a platform where supplier must **register** using some of their basic tender details to access opportunities and transparency notices published by all Public Sector.

UK Atomic Energy Authority

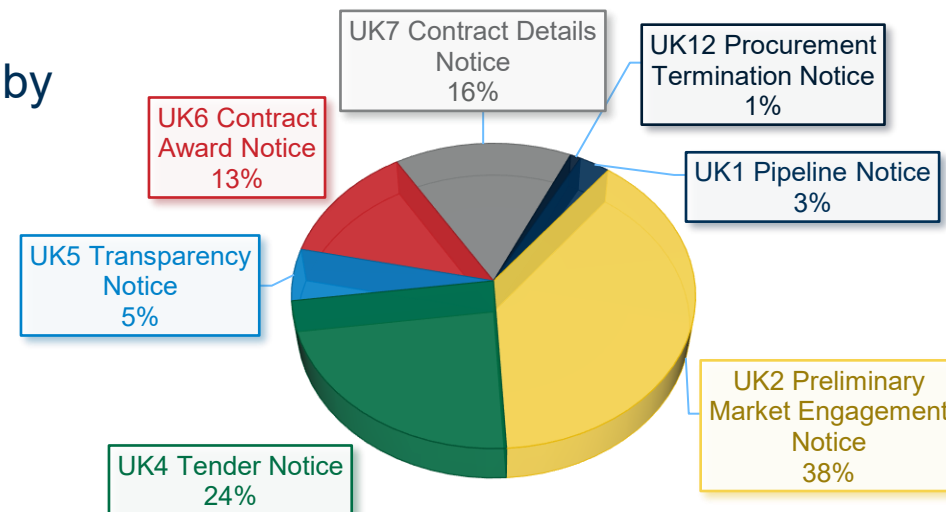
Organisation details

Organisation name	UK Atomic Energy Authority
Organisation identifier	<ul style="list-style-type: none"> Public procurement organisation number (PPON) PLJV-1169-JTDD

Once registered you will be provided with a Public Procurement Organisation number, which we need in order to publish mandatory notices when working with suppliers.

PA23 notices published by UKAEA since Feb 2025

*up to 28th October 2025



Research and Development

R & D Pathway



Research and development projects that meet the criteria below can be treated as exempt from the Procurement Act 2023

This exemption can be applied for:

- R&D projects that are being carried out for benefit to the public

The research must also be conducted for either:

- purpose of acquiring new scientific and or technical knowledge
- manufacture and testing of prototypes

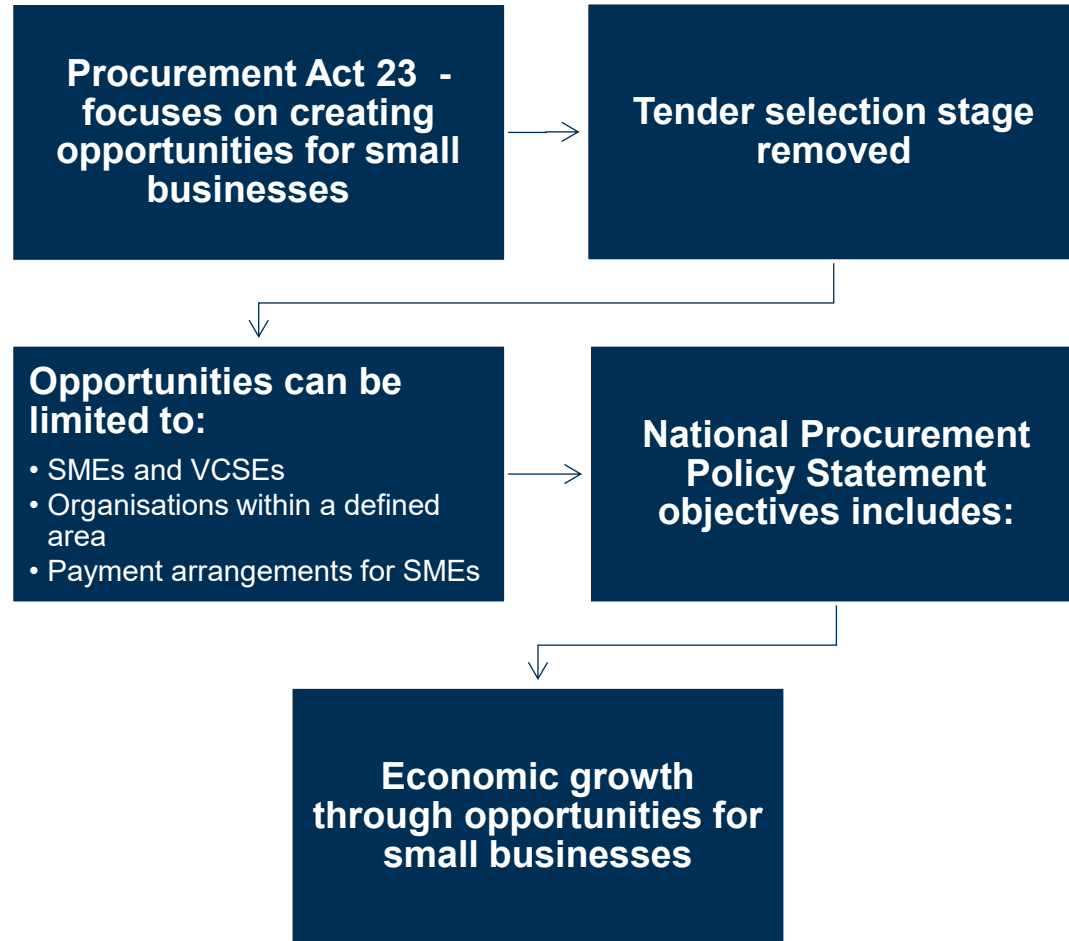
Opportunities will be advertised on our website from 1st May
[Working with UKAEA: Commercial opportunities | UKAEA Fusion Energy](#)

R&D Workshop – 13:30 – 14:15, Harwell room

- The workshop will provide an explanation and overview of R&D Pathway
- Explain what is meant by R&D Pathway
- R&D Exemption Criteria
- How UKAEA will apply the R&D Pathway
- Where new opportunities will be advertised

The new process will be launched in May.

Below Threshold Tender Opportunities



UKAEA New Processes

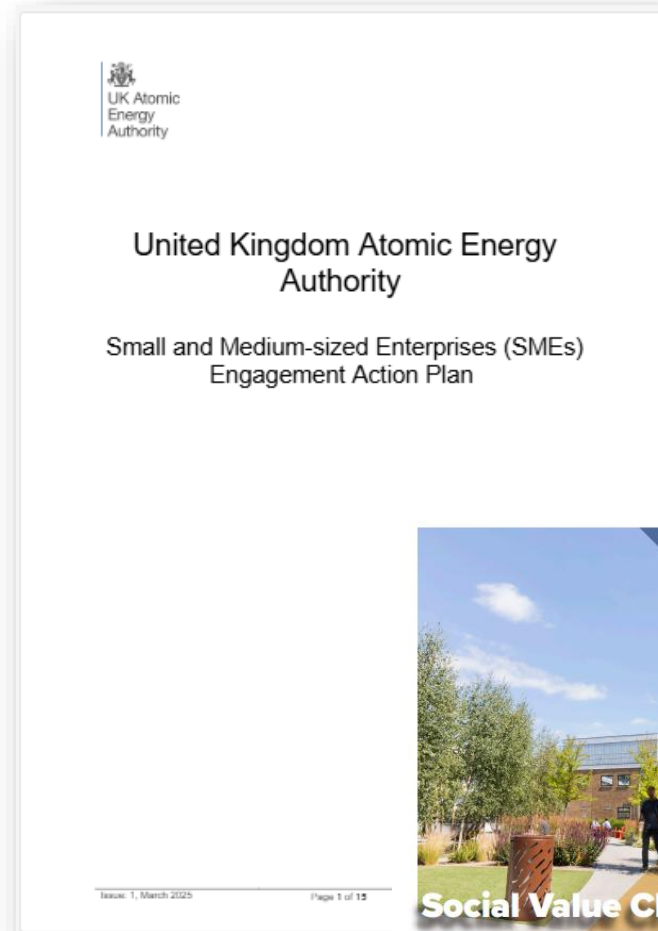
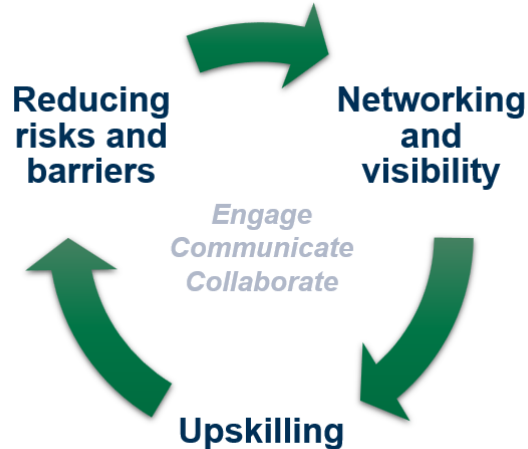
- New simplified process and templates, for requirements that are considered not complex.
- Reduced timelines for contract award decisions.

Opportunities developed for:

- SMEs and VCSEs only, or
- UK only businesses
- Larger contracts offered as Lots so smaller business can apply.

UKAEA's SME Action Plan FY25/26

Our objective was to reach a wider pool of small, medium and micro businesses and increase the number of SMEs we engage with to **build a diverse and resilient supply chain**.



UKAEA Mission Statement
"To lead the delivery of sustainable fusion energy and maximise the scientific and economic benefit."

Commercial at UKAEA
UKAEA is dedicated to promoting social value through its commercial process. By integrating social value into our practices, UKAEA aims to generate additional benefits that extend beyond the primary objectives of commercial practice.

What is UKAEA aiming to do?

- Promote social value internally within UKAEA
- Promote awareness of the importance of social value within our supply chain
- Engage with our supply chain to identify opportunities of social value

"We've successfully engaged our local supply chain in the manufacturing process, allowing several suppliers to enter the fusion sector for the first time." – an SME working with UKAEA

To support this commitment, UKAEA's Social Value Charter sets out the guiding principles and commitments that we invite our suppliers to adopt.

SME Action Plan: Targets and objectives for FY 25/26

Objective	Status
<p>Increase SME engagement >10% from baseline figure</p>	<p>✔ Achieved Engagement increased by c. 30%. This increase can be directly attributed to activities introduced via Action Plan</p>
<p>Organise and deliver 1x SME Event</p>	<p>✔ Achieved SME Collaborative Event: Showcase, Network, Learn was held on 30 September 2025. We welcomed 102 delegates. 89% of the companies in attendance were SMEs.</p>
<p>Establish and maintain an SME Working Group</p>	<p>✔ Achieved Our SME Working Group kicked off Thursday 5th March 2026, with the next session taking place in-person on Monday 18th May</p>
<p>Host 5 SME Surgeries throughout the financial year</p>	<p>✔ Achieved We completed 5 SME Surgeries, resulting in 41 one-to-one sessions with SME organisations.</p>
<p>Host 3 'Training' Sessions throughout the FY.</p>	<p>✔ Achieved We have hosted 6 sessions covering three different topics: Navigating Procurement Portals, Maximising Value: Procurement Pipeline, and Bid Writing.</p>
<p>Create and deliver a regular stream of content on social media, sharing updates, tips for SMEs.</p>	<p>✔ Achieved We have coordinated campaigns to promote activities introduced and increased number of SME Spotlights and case studies shared. Our LinkedIn supplier group has grown to over 1,000 members and been used to share updates. A dedicated SME comms plan has been outlined for FY 26/27</p>

SME Engagement Activities FY25/26

Key Impact Summary

- 10 SME-focused engagement activities delivered
- 281 total participants engaged
- ~85% average SME participation across activities
- 40 one-to-one SME Surgery sessions delivered
- 42 companies directly engaged through tailored discussions
- New SME Working Group established to support ongoing engagement

Objective for next year:

“Establish a structured SME Social Media Engagement Strategy, scaling activities to grow SME reach and drive increased participation”

SME Surgery	SME Event	SME Working Group	UKAEA Representation	SME Webinars
<p>SME Surgery Sessions</p> <p>Took place June, August, October, December + February</p> <p>40 sessions</p> <p>42 total companies attended</p> <p>Companies size: 8 micro; 19 small; 10 medium; 5 large</p>	<p>SME Collaborative Event: Showcase, Network, Learn</p> <p>Took place on 30th September</p> <p>No. 35 UKAEA delegates + 67 external delegates</p> <p>54 total companies attended</p> <p>Companies size: 12 micro; 20 small; 15 medium; 7 large</p>	<p>SME Working Group Kick off Meeting</p> <p>Took place on 5th March.</p> <p>No. 2 UKAEA delegates + 27 external delegates.</p> <p>27 total companies attended</p> <p>Companies size: 6 micro; 12 small; 8 medium, 1 large</p>	<p>NIA SME Meeting 2026</p> <p>Representing UKAEA as a Large organisation wanting to support SMEs</p> <p>Took place on 26th March</p> <p>12 companies interacted with in total</p> <p>Companies size: 2 micro; 1 small; 2 medium; 7 large</p>	<p>29th January: Procurement Pipeline – Maximising Value</p> <p>53 attendees; 47 companies</p> <p>Companies size: 31 SMEs; 16 large</p> <hr/> <p>12th February: Navigating Procurement Portals</p> <p>49 attendees; 45 companies</p> <p>Companies size: 33 SMEs; 12 large</p> <hr/> <p>26th February – Bid Writing</p> <p>37 attendees; 26 companies</p> <p>Companies size: 13 SMEs, 13 large</p>

Thank you for listening!

Working Lunch
12:40 – 14:10
C7 canteen

Exhibition Booths
12:40 – 15:00
C7, 1st & 2nd Floors

Quick Talks:
Commercial Edition
13:30 – 14:30
Frilford room

R&D Workshop
13:30 – 14:15
Harwell room

JET Site Tours
15:00 – 15:30
15:40 – 16:10

Thank you