About the DSIT Science & Technology Fellowship

Following the success of the Expert Exchange Programme Pilot Cohort, DSIT is launching the DSIT Science & Technology Fellowship. The DSIT Science & Technology Fellowship is an opportunity for experts from across the science and technology ecosystem to join DSIT for a 12-month part-time secondment beginning in Autumn 2024.

DSIT is seeking mid- to late-career professionals who are experts in their field and interested in contributing to policy and public sector work, to contribute to the development and delivery of DSIT’s work in key areas of interest across science, innovation, and technology.

Fellows will be embedded into policy teams across DSIT, working alongside civil servants to input expert advice and insight drawing from their expertise to support delivery of the Framework. They will be provided with a curated offer of support and opportunities over the course of their secondment, including but not limited to training on how the Civil Service works, opportunities to hear from impactful Senior Civil Servants, and opportunities to share their insights across the department.

Benefits of the DSIT Science & Technology Fellowship

For the participant:

- Develop a practical, in-depth understanding of how government and the Civil Service works, and how policy is developed and implemented.
- Use your specialist knowledge and skills to inform and impact policy and wider work in DSIT.
- Curated programme of training and opportunities, including the opportunity to hear from Senior Civil Servants.
- Access to Civil Service training and departmental opportunities, including the opportunity to engage with civil servants beyond the team you are placed in.
- Develop your networks in DSIT, the wider Civil Service and beyond.
- Participation in a cohort with other secondees from across a diverse range of sectors and backgrounds.

For the organisation:

- New networks developed by their employee within DSIT, the wider Civil Service and beyond, including with other Fellows.
- An employee better able to engage with the Civil Service and understand how policy is developed and what its impacts are.
- Reimbursement of employee’s salary for the time they are with DSIT up to the level of Civil Service equivalent pay bands.
How can I apply?

Opportunities to develop a role through the DSIT Science & Technology Fellowship can be found in the following pages of this brochure. If any of the opportunities listed spark your interest, please contact the partner who connected you to this brochure and ask them to introduce you to the Expert Exchange Programme team. If appropriate, the Expert Exchange Programme team will facilitate a matching conversation with the relevant DSIT team to test the potential for a match and to develop the potential placement. These are not role descriptions, and Fellows are expected to be actively involved in co-designing a mutually beneficial placement with their host teams.

How will Fellows be selected?

Fellows will be selected for their experience as well as their alignment with the placement opportunity and potential impact on the work of the DSIT team. The fellows will be selected following matching conversations based on the outcomes of these conversations, and with consideration of the balance and diversity of the cohort.

When will the Fellows be confirmed?

Potential Fellows should be put forward to DSIT by 25th July 2024. Matching conversations will take place throughout early summer and a final decision will be taken in the late summer to allow onboarding and background checks to be completed before the Fellowship placements start in Autumn 2024.

How fixed is the timeframe?

Start/end dates can be flexed by mutual agreement of the Fellow and their host.

About DSIT & the Expert Exchange Programme

DSIT was founded on 7 February 2023 to build on the UK’s strong foundations of world-class research, a thriving technology scene and global networks of collaboration to create a golden thread from outstanding basic science to innovations. DSIT works on Research and Development, talent programmes, physical and digital infrastructure and regulation across the science and technology sectors.

The Expert Exchange Programme supports DSIT to deliver on its ambitious agenda by strengthening DSIT’s policy development, delivery, knowledge and skills as well as its partnerships with stakeholders. The Expert Exchange Programme aims to make it easier, encouraged and more effective to bring outside expertise into DSIT and to support civil servants in seeking diverse experiences externally. The Expert Exchange Programme team administers the DSIT Science & Technology Fellowship.
## Fellowship Placement Opportunities

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<tr>
<th>Metascience Secondee</th>
<th>Innovation Coach</th>
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<td><strong>Metascience Secondee</strong>&lt;br&gt;You will be part of the new DSIT/UKRI Metascience Unit in the Science, Research and Innovation Directorate. You will deliver a programme of experiments on research funding mechanisms to produce a robust evidence base for decision makers.</td>
<td><strong>Innovation Coach</strong>&lt;br&gt;The Technologies and Innovative Regulation directorate seeks an innovation coach passionate about driving sustainable organisational behavioural change. They should have experience of working with the public sector and expertise in experimental innovation approaches such as sandboxes, advisory services, synthetic data, etc.</td>
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<td>Metascience aims to improve science policy and practice of governments, funders, and research institutions. Metascience brings together a range of disciplinary backgrounds, including economics, data sciences, sociology, cognitive science, innovation studies, and major contributions from STEM researchers considering the system they work within.</td>
<td>This work involves supporting Regulators’ and Local Authorities with developing or implementing innovative methodology. It includes providing information on available practical tools and offering bespoke advice to maximise innovation impacts), organisational learning, and broader change efforts. The ability to develop, review and apply evaluation metrics is crucial within this role for understanding the impacts of the innovations being undertaken.</td>
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<td>You should have experience in experimental design, data analysis, and technical project management.</td>
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<th>Future Telecommunications Technology Policy</th>
<th>Expert on Behavioural Insights and Innovation</th>
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<td><strong>Future Telecommunications Technology Policy</strong>&lt;br&gt;The Future Telecommunications Technology Policy team has an exciting and broad policy remit. We have invested over £300m over the past four years as we look to transform the security and resilience of our networks and rebuild UK capability and expertise. Our portfolio covers everything from telecoms supply chain diversification to network-of-networks to integration of quantum. Our portfolio covers everything from telecoms supply chain diversification to network-of-networks to integration of quantum. Given the breadth and technical nature of this work there is significant scope for a Fellow to add their expertise and influence the future of telecommunications in the UK. The desirable background would include network building and/or management, R&amp;D (and commercialisation thereof, including IPR), involvement in standards development, knowledge of emerging technologies and trends in telecoms, and senior-level strategy.</td>
<td><strong>Expert on Behavioural Insights and Innovation</strong>&lt;br&gt;Are you an expert in embedding an innovation culture across an organisation?</td>
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<td>We want to build a brilliant innovative culture across the Department for Science, Innovation and Technology.</td>
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<td>We’d love to hear from you if you’ve expertise around:</td>
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<td>• What works to fail fast - across the private sector, internationally or the wider public sector</td>
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<td>• Nudging when piloting initiatives</td>
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<td>• Measuring impact/benefits of culture to secure investment.</td>
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<td>Your insights will help us explore how we set the right conditions for a forward-looking innovative culture to underpin our strategic priorities. With our Permanent Secretary championing innovation across the Civil Service, it’s an exciting environment to join.</td>
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**Engineering Biology Expert Adviser**

This role sits in the Engineering Biology team, working in the part of the team focussed on economic growth. The role holder would sit in the team responsible for delivering the Engineering Biology Vision, providing expert insights and developing policy to respond to barriers to growth.

The exact shape of the role can be influenced by the role holder, but there are opportunities to support policy in focus areas such as infrastructure, skills, the availability of business finance and adoption of engineering biology’s applications by the wider economy. This role would particularly suit someone with a biological science or innovation background.

**Technical Adviser - Semiconductors**

DSIT’s Semiconductor team is looking for an expert with either an academic or industry background who can provide technical advice to policy development on hardware security, emerging approaches to semiconductors including novel Instruction Set Architectures, and technical aspects of export controls.

The role could be shaped to suit the interests of the candidate and would include participating in the development of cross government approaches to supporting the National Semiconductor Strategy's objectives of growing the sector, safeguarding against supply chain disruption and protecting the UK against security risks.

**Research Infrastructure Expert**

We are looking for an innovation expert to join the Research Infrastructure Team to develop our thinking on innovation infrastructure.

Building on work already started to define innovation infrastructure and understand the holistic needs of innovation infrastructure across the critical technologies and the private sector they will develop framework(s) and governance to support evidence-based decisions on infrastructure investment, working x-government and with industry/business, and delivering a key part of a National Plan on Research and Innovation Infrastructure. There will be the opportunity to develop policy experience and influence the way government invests in a critical part of the R&D landscape.

**Position, Navigation & Timing Fellow**

In October 2023 DSIT published a new Government Policy Framework for Greater Position, Navigation and Timing (PNT) Resilience and established a National PNT Office. The Office is looking for a secondee from industry or academia to lead a programme of work covering three broad areas.

First, leading on PNT productivity growth policy and implementation. Second, leading on PNT skills policy development and implementation. Finally, leading on domestic and international standards for PNT. All three areas will involve working with businesses, scientists, academic institutions, and colleagues across Government. A background in PNT is not essential for the role.

**Engineering Biology Responsible Innovation Expert Adviser**

This role sits in the Responsible Innovation team that sits within Engineering Biology. This team delivers the commitment in the UK Biological Security Strategy that commits the UK to become a world leader in responsible innovation by 2030.

This project will be developing a plan for engaging stakeholders in the responsible innovation and public adoption agenda, considering the wide needs and perspectives of the community. The role holder will use the insights from this engagement to influence and develop responsible innovation policy for engineering biology. This role would particularly suit a social scientist.
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<th><strong>R&amp;D Investment Expert Adviser</strong></th>
<th><strong>National Research Capability Review Lead</strong></th>
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<td>The R&amp;D investment team is looking for an external secondee to bolster the team working on the R&amp;D element of DSIT’s spending review bid. Leveraging your expertise from a venture capital, philanthropic funder or wider investment perspective, you’ll help bring fresh perspectives and strategic insights to help optimise government investment in research and development.</td>
<td>This role sits within the R&amp;D systems strategy team, who supported Paul Nurse’s RDI Organisational Landscape Review and the Government Response. Here, DSIT committed to enhance our data and evidence capabilities for strategic analysis and options for new and existing RDI organisations, led by a Research and Innovation Intelligence Function (RIIF). Working collaboratively (e.g. with GO Science), you will scope, devise a methodology and lead a national research capability review to map the UK’s RDI capabilities, highlight areas of strength &amp; weakness, and perform a gap analysis. This will influence the UK’s future RDI investments and strategy within the RIIF.</td>
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<th><strong>Quantum Standards Fellow</strong></th>
<th><strong>LLM/Generative AI Expert</strong></th>
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| The Office for Quantum plays a pivotal role in delivering the £2.5 billion National Quantum Strategy published in March 2023. This strategy outlines the UK’s ambitions to shape global technical standards on quantum, recognising their importance in advancing open technological development, interoperability, and trade. As a Quantum Standards Fellow, you will work with institutions such as NPL, BSI, NQCC and NCSC to map the strengths and opportunities in technical standards across different countries to inform the UK’s approach towards international engagement in this space. The ideal candidate will have an industry/academic background in quantum technologies, but no previous experience/knowledge in standardisation is required. | We are seeking a LLM / genAI expert to explore the potential for using AI and developing practical tools to support government policy makers and regulators in their work. Possible use cases include:  
- Automation of research (e.g. ‘horizon scanning’ for new technologies, rapid evidence assessments, measuring regulator performance). Challenge: much of the relevant data is qualitative and unstructured.  
- Developing ‘copilots’ to advise regulators/policy makers on good regulatory design, based on established good practice.  
- Auditing/evaluating regulatory proposals against established criteria.  
Familiarity with the large range of existing generative AI tools/applications is likely to be helpful in this work. |

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<th><strong>AI for R&amp;D Policy Advisor</strong></th>
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<td>You will be part of the Science, Research and Innovation Directorate. You will support policy and programme design to explore the use of AI in the R&amp;D system. This role will suit someone who is interested in the potential of AI to support R&amp;D and accelerate the pace of scientific discovery. You should have experience in artificial intelligence, machine learning, large language models, and design of research programmes.</td>
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### Space Skills & Workforce Lead

The National Space Strategy sets out our vision for the UK space sector, which cannot be achieved without a skilled and experienced workforce.

This role will support space workforce development policy aligned to future education and workforce policies post-election, working with senior figures across the sector and making recommendations for changes and improvements. They will be tasked with identifying the skillsets needed for the UK’s priority space capabilities, overlaps with other sectors, and routes for building or attracting this talent base to the UK.

This will require strong analytical skills and knowledge of space or broader STEM careers and will be supported in drafting policy papers.

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### Research Security Expert Adviser

We’re seeking a knowledgeable and collaborative colleague to lead a systems evaluation of the research security landscape, working across the Research Security Policy and the Research Collaboration Advice Teams within DSIT.

You’ll create a “systems map” that evaluates the interaction between policy and legislation, external influences, institutional practices, and individual decision-making. You’ll collaborate extensively with policy teams across government and research sector experts on a project that underpins the UK’s leadership in this critical and high-profile area. This role will provide stretch and challenge for the successful applicant and an opportunity to directly shape and influence government policy.

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### Quantum Technologies Technical Lead

The Office for Quantum was set up to deliver the government commitments in the National Quantum Strategy, published in March 2023. This is a fast paced and innovative, friendly team that works on a broad range of high-profile policy areas from business growth and finance to skills or regulation and standards.

This role would be working closely with the team to undertake technical assessments around key application areas (to inform the recently published missions for example) as well as helping to map global standards activities. This may be more suited to mid-late career and more applied or engineering backgrounds.

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### Advisor - Life Science Innovation

The Office for Life Sciences (OLS) is a joint unit between the DSIT and DHSC focussed on making the UK the best place to develop, manufacture and deploy new medicines and medtech.

This role will see you deployed flexibly on priority projects across OLS – such as major investment negotiations, work to improve the NHS’s ability to innovate or supporting the development of new innovations in areas such as Dementia. It would suit someone from an industrial or mid-career academic background, who is ready to roll up their sleeves and get stuck in as part of a friendly, high performing team.

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### Data Infrastructure - Security, Resilience and Growth

This role is in the DSIT’s policy team responsible for security and resilience, and growth, of the data infrastructure sector, particularly data centres.

Depending on experience, you could play a role in helping to shape the UK’s regulation of the sector and/or in how Government can work better with industry to support growth and resilience.

It would be suited to any individual with industry experience in the data centre sector, or on academic/think-tank research into the current or future landscape of the sector. Either an operations, or investment background would be particularly beneficial.
Critical Technology Expert

Technology & Science Insights is an all-source assessment team providing rigorous analysis to underpin the UK government’s science & technology strategy. We’re an inclusive team with a long history of working with experts from academia and industry – both as secondee and external advisers.

We’re looking for mid-career experts in any of the critical five technologies (AI, EngBio, Future Comms, Semiconductors or Quantum) or related disciplines. They’ll work closely with the Government Chief Scientific Adviser on our projects. That could be horizon scanning for new developments, developing our understanding of the international landscape or qualifying our data-led assessments.

Remote Sensing Data and Technology Advisor

The Geospatial Commission is seeking a remote sensing expert to join its team and play a pivotal role in shaping the future use of earth observation data in the UK.

The Commission is committed to enhancing the use and accessibility of remote sensing and earth observation data, aiming to unlock greater public value through growth and innovation. The post holder will be an integral part of the team, helping us to connect us with this R&D community, build our understanding of this market, and explore future data access models for the UK public sector.

International Strategy Policy

A top foreign policy priority of HMG is supporting Ukraine, whose S&T sectors are remarkably resilient and innovative despite many challenges. DSIT has a dynamic international agenda which helps to leverage the UK’s S&T strengths.

This role will operate across international teams at the intersection of geopolitics, research, technology and innovation. We welcome credibility in one or more of the following areas: enhancing and modernising research ecosystems, Horizon Europe, science diplomacy, challenges of integrating emerging technology into stressed economies, research support to reconstruction and recovery, and any contemporary familiarity with Ukraine’s S&T ecosystem will be a considerable advantage.

Space Emissions & Environmental Impact Lead

The National Space Strategy sets out our vision for the UK space sector, including our strong commitment to building a sustainable space economy.

This role will lead work to ensure that the space sector grows in line with Net Zero legislation, working with senior figures across the sector and making recommendations for changes and improvements. They will develop research and insights into measuring and minimising the environmental impact of space activities and how this overlaps with our wider space ambitions.

This will require strong analytical skills and knowledge of space or broader environmental policy, and will be supported in drafting policy papers.

UK Space Agency Fellow

The UK Space Agency (UKSA) has a major role in delivering the Government’s National Space Strategy to boost UK prosperity, understand the Universe, and protect our planet and outer space. UKSA works nationally and with international partners to deliver missions and new capabilities across a range of areas including launch, exploration and science.

The UKSA is seeking a multi-disciplinary expert either with an academic or industrial background who is able to contribute to one or more of the following areas: Earth/space sciences and payload/instrument design, space debris environment modelling and observation, telecoms applications and payload design, nuclear power sources and propulsion, launch vehicle future architectures.
## Advisor to the National Technology Adviser

The National Technology Adviser (NTA) position was created to help the UK to realise the benefits of new technologies to boost the economy, ensure national security and tackle the greatest challenges of the day. The NTA works across government to champion the science and tech industries, and build networks across industry to draw the best minds into policymaking.

The National Technology Adviser seeks two mid-career/senior industry experts, who can provide new perspectives to support his work. Firstly, someone with experience of working in R&D roles covering a broad range of technical or market areas. Secondly someone with an R&D background and essentially based in Scotland with a good knowledge of the innovation ecosystem in Scotland to provide a direct link to its needs and opportunities. We would encourage anyone with the above experience to get in touch to discuss how they could support the NTA.

## Advanced Analytics Fellow

The Advanced Analytics team are investigating innovative data science approaches to evaluating policy in DSIT, including under key departmental frameworks. We are focussing on two areas – quantitative techniques for developing counterfactuals and collating real time indicators using web scraping.

We are looking for someone from either an industry or academic background to advise on methods and quality assure outputs. This placement could also broaden to include wider DSIT data science projects, so this opportunity would suit someone with the following experience: monitoring and evaluating policy; working with semi-structured or big data; and analysing complex datasets.

## Digital Technical Standards Advisor

We are looking for a technical specialist to be part of a DSIT team that brings together policy issues and expertise on digital technical standards (e.g. Internet, telecoms). You will assess impacts of standards on policy initiatives and how best to achieve relevant objectives. The role will also contribute to a project aimed at developing and maintaining UK expertise on technical standards.

This could involve understanding and implementing talent pipeline routes. The role would expose you to stakeholders across UK government, industry, and international organisations. You will have technical experience with the ability to quickly familiarise yourself with new concepts.

## AI Tools Expert

Emtech, Futures and Projects is a centre of excellence for foresight and horizon scanning in government, reporting to the Government Chief Scientific Adviser (GCSA). We’re an important part of the science advisory system in the UK, including the long running Foresight Programme. We’ve run some limited pilots in using AI tools in the science advisory process, but now increasing our ambition. We’re looking for a mid-career professional from academia or industry, with experience in evaluating commercial AI tools. They’d help us to assess potential tools from our long list, secure the appropriate access to them and design trials to evaluate their utility.

## AI Risk Analyst

The AI Policy Directorate plays a leading role in guiding the strategic direction of AI across Government to establish the most trusted and pro-innovation system for AI governance in the world. Join our team of experts in AI and risk assessment to identify, measure and assess the risks from AI.

We are looking for an individual with a technical background in AI, from either an academia or industry. You will be keen to utilise your technical knowledge to support the team in accessing the potential impacts of AI to the UK, contributing to the UK’s AI policy decision making process.
**Expert Engagement in Emergencies**

The Government Office for Science is seeking support to enhance its ability to identify external experts to join the Science Advisory Group for Emergencies (SAGE).

SAGE is the key mechanism for generating science and technology advice for Ministers in an emergency, and GO-Science is responsible for maintaining HMG’s ability to convene it, becoming the SAGE Secretariat during a crisis.

The identification of experts is challenging, so the team is looking for someone with experience of working between government and expert communities. This project is flexible, but we would expect candidates to develop ideas for creating enduring systems for expert identification.

**Economic Security Evidence and Insights Fellow**

The International Analysis Team in DSIT lead evidence and analysis of the opportunities and risks of living and trading in a highly interconnected global world. This includes establishing the UK position in global supply chains for economically critical sectors and agreeing current and desirable levels of inter-dependence, then accounting for the costs and benefits of policies to change levels of UK dependence. The fellow would suit an academic or industry expert interested in analysis (including data science) of the UK position in the global value chain of semiconductors, what determines that position and how to change it.

**Land Use Data and Technology Advisor**

The UK’s ambitions to deliver economic growth, protect the environment and reach net zero will require significant land use change over the coming decades. DSIT’s National Land Data Programme seeks to identify how the UK can better use spatial data and technology to enable a more strategic and coordinated approach to land use policy.

We are seeking someone to support our work to drive FAIR improvements to public sector data that will help the UK do more with our finite land. This is an opportunity to apply your technical skills to a key public policy challenge and inform government policymaking.

**Population Movement Data (PMD) Technical Specialist**

A growing number of companies are using aggregated and anonymised population movement data (PMD) and demand is increasing within the public sector. It is of use on over 40% of the risks in the National Security Risk Assessment.

The Geospatial Commission is leading a programme to assess this market, including its strategic importance, the privacy and security implications and its potential for the public sector. This includes a £5m innovation sandbox. This is an opportunity to use your technical expertise to help us understand the data and technology this market uses, and to shape our future work in this area.