National Audit Office

OVERVIEW

Department for Science, Innovation & Technology

Departmental Overview 2022-23

We are the UK's independent public spending watchdog

December 2023

What this guide is about

This guide has been produced to support the Science, Innovation and Technology Committee in its examination of the Department for Science, Innovation & Technology's (DSIT's) remit, plans and budget. It summarises the key information and insights that can be gained from our examinations of the predecessor departments (the Department for Business, Energy & Industrial Strategy, the Department for Digital, Culture, Media & Sport and the Cabinet Office) and the budget awarded to the new department in the Spring Budget 2023.

The guide includes:

→ how DSIT is structured;

→ spending and financial management;

→ key policy areas and commitments;

→ major programmes; and

→ overview of DSIT's agencies and public bodies.
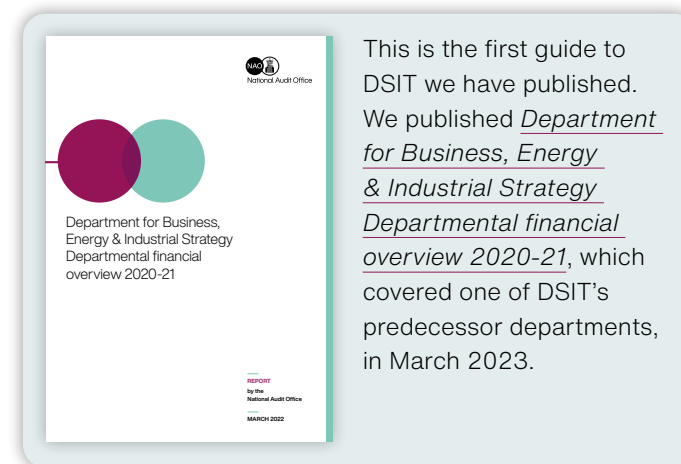
How we have prepared this guide

The information in this guide draws on the findings and recommendations from our financial audit and value for money programme of work, and from publicly available sources.

We have cited these sources throughout the guide to enable readers to seek further information if required. Where analysis has been taken directly from our value-for-money or other reports, details of our audit approach can be found in the Appendix of each report, including the evaluative criteria and the evidence base used.

Other analysis in the guide has been directly drawn from publicly available data and includes the relevant source as well as any appropriate notes to help the reader understand our analysis.

Other relevant publications

More information about our work on science, innovation and technology in England, as well as information about our other recent and upcoming reports on can be found on the NAO website.

Department for Business, Energy & Industrial Strategy Departmental financial overview 2020-21

REPORT
by the
National Audit Office

MARCH 2022

This is the first guide to DSIT we have published. We published *Department for Business, Energy & Industrial Strategy Departmental financial overview 2020-21*, which covered one of DSIT's predecessor departments, in March 2023.

More information about central government accounting and reporting

You may also be interested in our interactive guide to *Good practice in annual reporting* (February 2023) which sets out good-practice principles for annual reporting and provides illustrative examples taken from public sector organisations who are leading the way in this area.

Departmental Overview 2022-23

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About the National Audit Office

The National Audit Office (NAO) is the UK's independent public spending watchdog. We scrutinise public spending for Parliament and are independent of government and the civil service. We help Parliament hold government to account and we use our insights to help people who manage and govern public bodies improve public services.

The Comptroller and Auditor General (C&AG), Gareth Davies, is an Officer of the House of Commons and leads the NAO. We audit the financial accounts of departments and other public bodies. We also examine and report on the value for money of how public money has been spent.

In 2022, the NAO's work led to a positive financial impact through reduced costs, improved service delivery, or other benefits to citizens, of £572 million.

If you would like to know more about the NAO's work on science, innovation and technology, or are interested in the NAO's work and support for Parliament more widely, please contact:

Parliament@nao.org.uk
020 7798 7665

Part One ▪ Overview

About the Department for Science, Innovation & Technology (DSIT)

DSIT was formed in February 2023, following the government's machinery of government changes, and brought together the relevant parts of the former Department for Business, Energy & Industrial Strategy, the former Department for Digital, Culture, Media & Sport and the Cabinet Office.

DSIT's mission is to drive stronger growth, better jobs and bold discoveries. Its aim is to cement the UK's place as a science and technology superpower. The department seeks to do this by:

- backing UK science, technology and innovation to boost investment in the UK's most exciting technologies and sectors of the future, to grow the economy and create high-paid jobs;

- tackling global challenges through international influence and partnerships to secure our future resilience and security; and

- improving lives by championing responsible innovation in the digital economy and public services.

In February 2023, government set out the department's six priority outcomes:

1 Optimise public research and development (R&D) investment to support areas of relative UK strength and increase the level of private R&D to make our economy the most innovative in the world.

2 Promote a diverse research and innovation system that connects discovery to new companies, growth and jobs – including by delivering world-class physical and digital infrastructure (such as gigabit broadband), with the aim of making the UK the best place to start and grow a technology business, as well as developing and attracting top talent.

3 Put our public services – including the NHS and schools – at the forefront of innovation, championing new ways of working and the development of in-house Science, Technology, Engineering and Mathematics (STEM) capability to improve outcomes for people.

4 Strengthen international collaboration on science and technology in line with the Integrated Review, and ensure our researchers are able to continue to work with leading scientists in Europe and around the world.

5 Deliver key legislative and regulatory reforms with the aim to drive competition and promote innovation, including the Data Protection and Digital Information Bill, the Digital Markets, Competition and Consumer Bill and our pro-innovation approach to regulating AI.

6 Pass the remaining stages of the reformed Online Safety Bill, which seeks to keep British people, especially children, safe online.
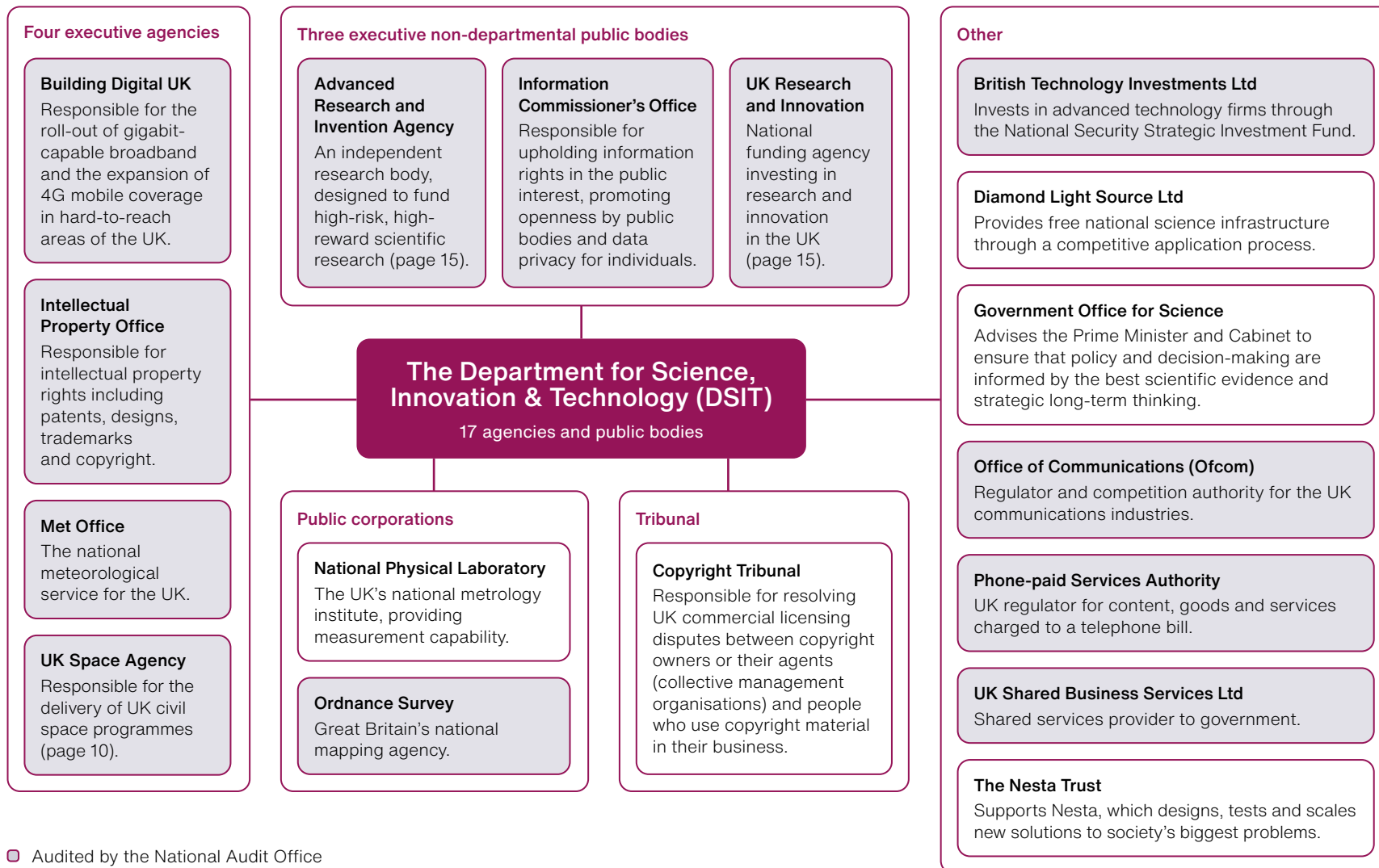
How DSIT is structured

DSIT works with 17 agencies and public bodies to delivers its objectives.

The departmental group includes the core department, four executive agencies, three executive non-departmental public bodies, one tribunal, two public corporations and seven other arm's-length bodies. Pages 20 to 25 provide more detail about each organisation including expenditure and headcount where available.

DSIT's arm's-length bodies have a wide range of policy and operational responsibilities

Four executive agencies

Building Digital UK
Responsible for the roll-out of gigabit-capable broadband and the expansion of 4G mobile coverage in hard-to-reach areas of the UK.

Intellectual Property Office
Responsible for intellectual property rights including patents, designs, trademarks and copyright.

Met Office
The national meteorological service for the UK.

UK Space Agency
Responsible for the delivery of UK civil space programmes (page 10).

Three executive non-departmental public bodies

Advanced Research and Invention Agency
An independent research body, designed to fund high-risk, high-reward scientific research (page 15).

Information Commissioner's Office
Responsible for upholding information rights in the public interest, promoting openness by public bodies and data privacy for individuals.

UK Research and Innovation
National funding agency investing in research and innovation in the UK (page 15).

The Department for Science, Innovation & Technology (DSIT)
17 agencies and public bodies

Public corporations

National Physical Laboratory
The UK's national metrology institute, providing measurement capability.

Ordnance Survey
Great Britain's national mapping agency.

Tribunal

Copyright Tribunal
Responsible for resolving UK commercial licensing disputes between copyright owners or their agents (collective management organisations) and people who use copyright material in their business.

Other

British Technology Investments Ltd
Invests in advanced technology firms through the National Security Strategic Investment Fund.

Diamond Light Source Ltd
Provides free national science infrastructure through a competitive application process.

Government Office for Science
Advises the Prime Minister and Cabinet to ensure that policy and decision-making are informed by the best scientific evidence and strategic long-term thinking.

Office of Communications (Ofcom)
Regulator and competition authority for the UK communications industries.

Phone-paid Services Authority
UK regulator for content, goods and services charged to a telephone bill.

UK Shared Business Services Ltd
Shared services provider to government.

The Nesta Trust
Supports Nesta, which designs, tests and scales new solutions to society's biggest problems.

▢ Audited by the National Audit Office

Source: National Audit Office analysis of agencies' and public bodies' 'About us' webpages

DSIT's internal structure

By November 2023, DSIT had not yet finalised and published its Target Operational Model. It is currently structured into three Groups, supported by two cross-government advisers. Sarah Munby is the DSIT Permanent Secretary.

Government Chief Scientific Adviser

The Government Chief Scientific Adviser (GCSA), Dame Angela McLean, is responsible for:

- providing scientific advice to the Prime Minister and members of cabinet

- advising the government on aspects of policy on science and technology

- ensuring and improving the quality and use of scientific evidence and advice in government

National Technology Adviser

The National Technology Adviser, Dr Dave Smith, is responsible for:

- working with the tech industry and academia to drive growth and innovation

- integrating academic and industry expertise to boost the UK's superpower ambitions

Digital Technology & Telecoms

The Director General (Emran Mian) is responsible for:

- digital and tech policy

- digital infrastructure

- data policy

- international and economic security

- cyber and digital identity

- security and online harms

Science, Innovation & Growth

The Director General (Alexandra Jones) is responsible for:

- international science and innovation

- UK science, research and innovation

- technology transfer

- technologies and innovative regulation

- life sciences

- space

Corporate Services

The Director General (Freya Guinness) is responsible for the following:

- communications

- finance

- governance

- human resources

- commercial and operations

- digital and data

- strategy

● Cross-government adviser   ● Director General within DSIT

Source: National Audit Office analysis of Department for Science, Innovation & Technology 'About us' webpages

Part One • Overview

Recent NAO work relating to DSIT and its responsibilities

Research and innovation

DSIT has responsibility for research and innovation, which was transferred from the Department for Business, Energy & Industrial Strategy (BEIS) in February 2023.

Recent National Audit Office work

Support for innovation to deliver net zero

Our 2023 report examines whether the government is set up to deliver value for money from its approach to investment in research and innovation to deliver net zero in the UK. For detail on the findings of the report, see page 14.

Digital

DSIT has responsibility for digital, which was transferred from the Department for Digital, Culture, Media & Sport (DCMS) in February 2023.

Recent National Audit Office work

Preparedness for online safety regulation

Our 2023 report examines whether the preparations undertaken by DSIT (and previously DCMS) and Ofcom for the implementation of the new online safety legislation are sufficiently advanced. For detail on the findings of the report, see page 16.

Improving broadband

Our 2020 report considers what the Superfast Programme has delivered and how the UK's broadband infrastructure held up during the first months of the COVID-19 pandemic. For detail on the findings of the report, see page 19.

Cross-cutting

DSIT's responsibilities for digital, innovation and R&D are likely to have cross-government implications. Our reports cover a range of cross-cutting government issues relevant to DSIT.

Recent National Audit Office work

Lessons learned: Cross-government working report and *Cross-government working: good practice guide*

Our 2023 report draws on insights from our previous work to set out what effective cross-government working looks like and highlights some of the barriers. Our guide aims to support policy and delivery professionals who are responsible for delivering projects, programmes or policies where more than one department has a role during their development or delivery.

Good practice guide – Financial management in government: enablers of success

Our 2023 guide aims to provide insights and good practice on the essential enablers of success for better financial management in government.

Also look out for our upcoming report on *Use of artificial intelligence in government*. This report will examine how effectively government is maximising the opportunities and mitigating the risks of using artificial intelligence in the provision of public services.
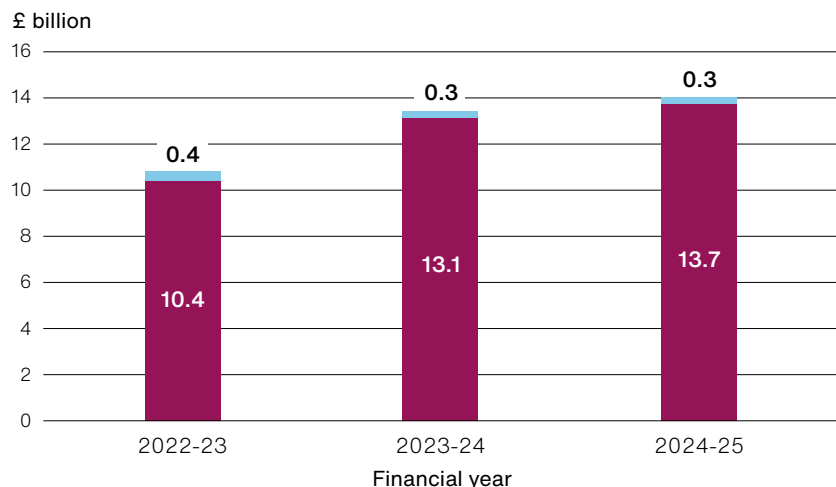
Part Two • Spending and financial management

DSIT's budget and future spending commitments

A department expenditure limit (DEL) is subject to spending limits set by government Spending Reviews. This is split into capital and resource funding. Resource DEL represents spend for day-to-day resources and administration costs. Capital DEL is spent on investment and things that will create growth in the future.

The Department for Science, Innovation & Technology's (DSIT's) budget, 2022-23 to 2024-25

In 2023 HM Treasury announced plans for DSIT to spend £38.2 billion between 2022-23 and 2024-25

£ billion

Bar chart showing Capital DEL and Resource DEL by financial year:
- 2022-23: Capital DEL 10.4, Resource DEL 0.4
- 2023-24: Capital DEL 13.1, Resource DEL 0.3
- 2024-25: Capital DEL 13.7, Resource DEL 0.3

Financial year

■ Capital DEL   ■ Resource DEL

Notes

1   Figures for 2022-23 reflect indicative allocations based on DSIT's predecessors' 2022-23 budget. As a newly formed department, DSIT has not produced an annual report and accounts for 2022-23.

2   All figures exclude depreciation.

Source: National Audit Office analysis of HM Treasury, *Spring Budget 2023*, HC 1183, March 2023

Spring Budget 2023

Areas set to receive investment, announced in the Spring Budget 2023 include:

£2.5 billion

Quantum strategy:
Government has committed a total of £2.5 billion over 10 years, focusing on realising the four goals of its Quantum strategy (see page 12).

£900 million

Supercomputer and AI Research Resource:
Government has committed in the region of £900 million to build an exascale supercomputer and to establish a new AI Research Resource, with initial investments starting this year.

£100 million

Innovation Accelerators programme:
Government has committed £100 million funding for the Innovation Accelerators programme to 26 transformative R&D projects.

£10 million

AI research prize:
Government has committed to award a £1 million prize every year for the next 10 years to researchers that drive progress in critical areas of AI.

The majority of the department's budget is for capital programmes, in particular, it has large commitments in digital infrastructure and R&D. DSIT's major programmes are set out on pages 17 and 18.

Part Two ▪ Spending and financial management

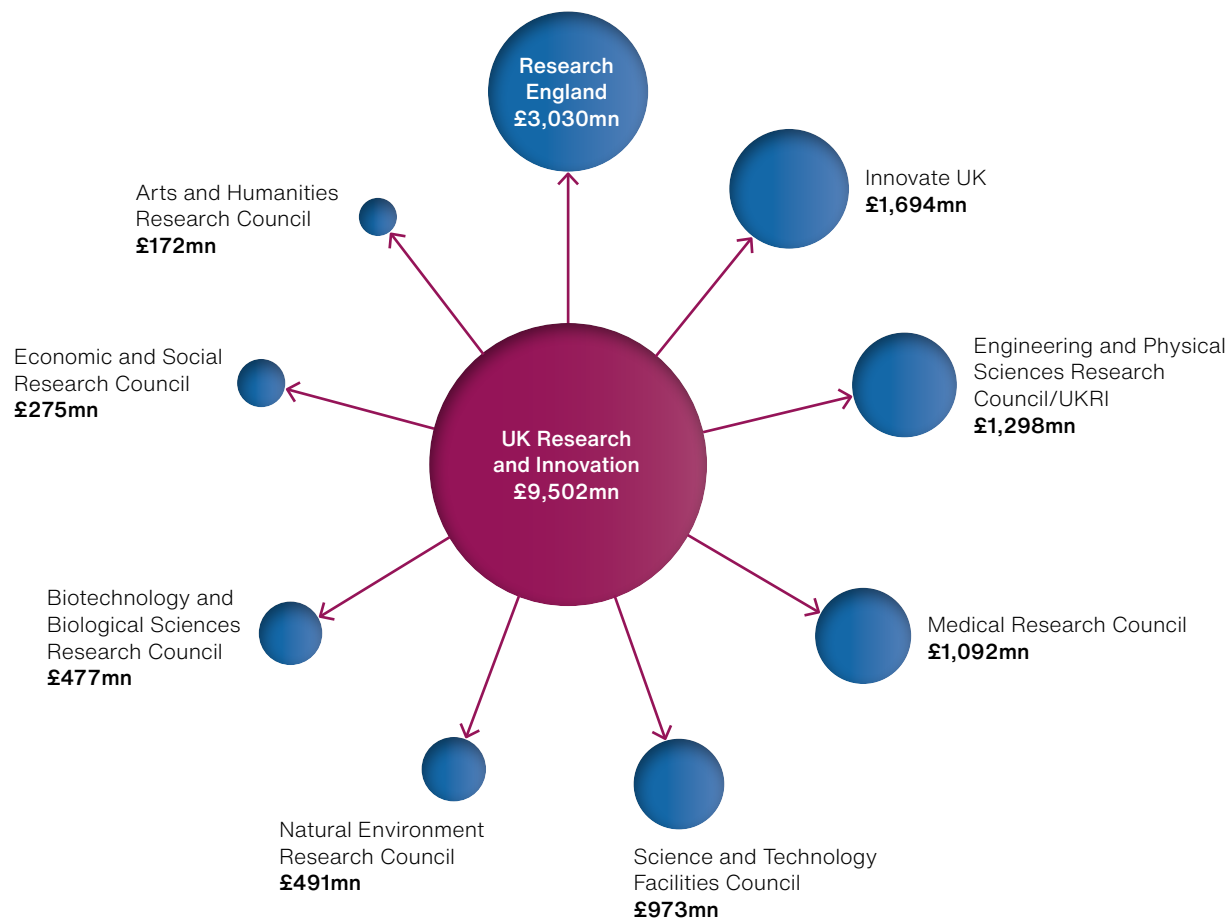# Where UK Research and Innovation (UKRI) spends its money

UKRI is one of DSIT's largest arm's-length bodies. In 2022-23, UKRI's total expenditure increased by £614 million (7%) to £9,502 million (£8,888 million 2021-22).

Following the machinery of government changes in February 2023, UKRI was designated to DSIT with accounting officer responsibilities formally transferred from 1 April 2023.

UKRI invests in research and innovation and aims to build a thriving, inclusive research and innovation system that connects discovery to prosperity and public good. UKRI brings together the seven Research Councils, Innovate UK and Research England.

Research England accounted for £3,030 million (32%) of UKRI's spending in 2022-23 (£2,645 million (30%) 2021-22).

UK Research and Innovation's (UKRI's) spending by operating segment, 2022-23

Research England £3,030mn

Innovate UK £1,694mn

Arts and Humanities Research Council £172mn

Engineering and Physical Sciences Research Council/UKRI £1,298mn

Economic and Social Research Council £275mn

UK Research and Innovation £9,502mn

Medical Research Council £1,092mn

Biotechnology and Biological Sciences Research Council £477mn

Natural Environment Research Council £491mn

Science and Technology Facilities Council £973mn

Notes
1   The councils are all operating segments. Each produces information which is regularly reviewed by UKRI's Executive Board.
2   Figures may not sum due to rounding.
3   Figures presented are nominal prices.

Source: National Audit Office analysis of UK Research and Innovation, *Annual Report and Accounts 2022-23*

Part Two ▪ Spending and financial management

Where the UK Space Agency spends its money

The UK Space Agency is one of DSIT's largest arm's-length bodies. In 2022-23, the UK Space Agency's total expenditure increased by £150 million (30%) to £649 million (£500 million 2021-22)

Following the machinery of government changes in February 2023, the UK Space Agency was designated to DSIT with accounting officer responsibilities formally transferred from 1 April 2023.

The UK Space Agency develops and delivers UK civil space programmes across the UK sector and with international space institutions. It seeks to enable delivery of national space capabilities, invests in early-stage R&D and helps to represent the UK in international space cooperation.

Following the 2021 Spending Review, the UK Space Agency was allocated a budget of £600 million for 2023-24 by BEIS (its predecessor department).

European Space Agency (ESA) subscriptions accounted for £553 million (85%) of UK Space Agency's spending in 2022-23 (£376 million (76%) 2021-22). This includes £123 million additional funding (awarded by HM Treasury since the 2021 Spending Review) to fund Earth Observation programmes.
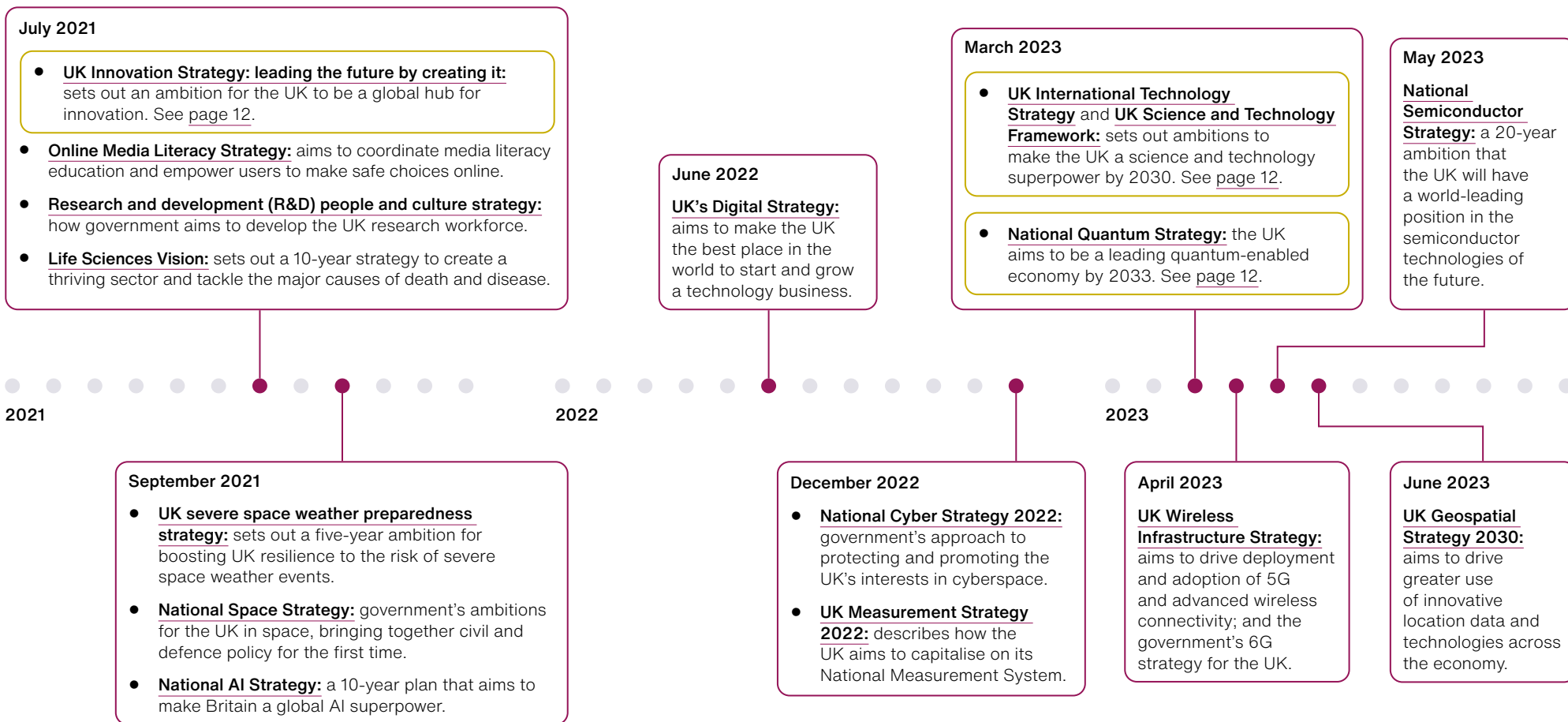
The UK Space Agency's spending, 2022-23
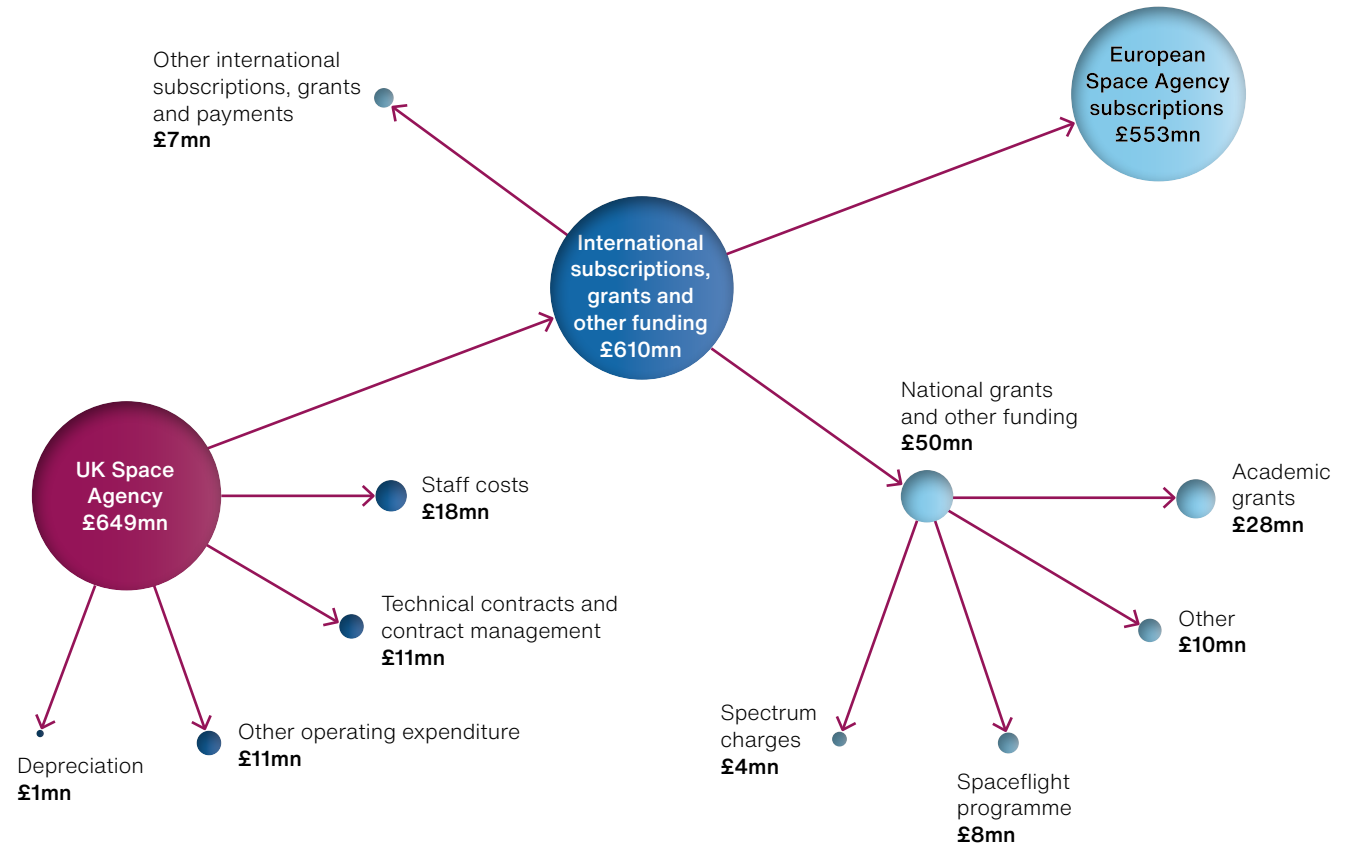
Notes
1 Figures may not sum due to rounding.
2 Figures presented are nominal prices.

Source: National Audit Office analysis of UK Space Agency, *Annual Report and Accounts 2022-23*

Part Three • Key policy areas and commitments

Timeline of DSIT's key ambitions and commitments

DSIT has set out a number of its ambitions and made commitments across more than 15 published strategies and frameworks.

July 2021

- **UK Innovation Strategy: leading the future by creating it:** sets out an ambition for the UK to be a global hub for innovation. See page 12.
- **Online Media Literacy Strategy:** aims to coordinate media literacy education and empower users to make safe choices online.
- **Research and development (R&D) people and culture strategy:** how government aims to develop the UK research workforce.
- **Life Sciences Vision:** sets out a 10-year strategy to create a thriving sector and tackle the major causes of death and disease.

June 2022

UK's Digital Strategy: aims to make the UK the best place in the world to start and grow a technology business.

March 2023

- **UK International Technology Strategy** and **UK Science and Technology Framework:** sets out ambitions to make the UK a science and technology superpower by 2030. See page 12.
- **National Quantum Strategy:** the UK aims to be a leading quantum-enabled economy by 2033. See page 12.

May 2023

National Semiconductor Strategy: a 20-year ambition that the UK will have a world-leading position in the semiconductor technologies of the future.

2021

2022

2023

September 2021

- **UK severe space weather preparedness strategy:** sets out a five-year ambition for boosting UK resilience to the risk of severe space weather events.
- **National Space Strategy:** government's ambitions for the UK in space, bringing together civil and defence policy for the first time.
- **National AI Strategy:** a 10-year plan that aims to make Britain a global AI superpower.

December 2022

- **National Cyber Strategy 2022:** government's approach to protecting and promoting the UK's interests in cyberspace.
- **UK Measurement Strategy 2022:** describes how the UK aims to capitalise on its National Measurement System.

April 2023

UK Wireless Infrastructure Strategy: aims to drive deployment and adoption of 5G and advanced wireless connectivity; and the government's 6G strategy for the UK.

June 2023

UK Geospatial Strategy 2030: aims to drive greater use of innovative location data and technologies across the economy.

Source: National Audit Office analysis of Department for Science, Innovation & Technology's (and its predecessor departments') strategies published between July 2021 and June 2023

Government's commitments cover a broad range of issues

Examples of the key government commitments DSIT is aiming to deliver.

UK Innovation Strategy

The government's _UK Innovation Strategy_ sets out the government's vision to make the UK a global hub for innovation by 2035 and sets out actions under four pillars:

1 **Unleashing businesses**
Fuel businesses who want to innovate.

2 **People**
Make the UK the most exciting place for innovation talent.

3 **Institutions and places**
Ensure UK research, development and innovation institutions serve the needs of businesses and places across the UK.

4 **Missions and technologies**
Stimulate innovation to tackle major challenges faced by the UK and the world and drive capability in key technologies.

UK Science and Technology Framework

In March 2023 DSIT published its _Science and Technology Framework_, setting out a mission for the UK to become the most innovative economy in the world. The framework set out the 10 key areas it will focus on to achieve this goal by 2030:

1   Identifying critical technologies

2   Signalling UK strengths and ambitions

3   Investment in research and development

4   Talent and skills

5   Financing innovative science and technology companies

6   Procurement

7   International opportunities

8   Access to physical and digital infrastructure

9   Regulation and standards

10   Innovative public sector

National Quantum Strategy

Government has committed £2.5 billion to developing quantum technologies in the UK over the 10 years from 2024. The government's _National Quantum Strategy_ sets out its vision for the UK to be a leading quantum-enabled economy by 2033, with a world-leading sector, and where quantum technologies are an integral part of the UK's future digital infrastructure and advanced manufacturing base, driving growth and helping to build a thriving and resilient economy and society. The strategy focuses on realising four goals:

1 Ensure the UK is home to world-leading quantum science and engineering, growing UK knowledge and skills.

2 Support business, making the UK the go-to place for quantum businesses and an integral part of the global supply chain, as well as a preferred location for investors and global talent.

3 Drive the adoption and use of quantum technologies in the UK to deliver benefits for the economy and society, as well as our national security.

4 Create a national and international regulatory framework that supports innovation and the ethical use of quantum technologies, and protects UK capabilities and national security.

Look out for the quantum skills action plan, which DSIT committed to publish by March 2024 in the strategy.

Part Three • Key policy areas and commitments

DSIT seeks to deliver its commitments through a range of delivery mechanisms

Examples of DSIT's delivery mechanisms.

The Catapult Network

Established in 2011, Catapults are independent, not-for-profit organisations designed to support innovation through the provision of R&D infrastructure, specialist knowledge and expertise.

The UK has nine Catapults which receive some core funding from DSIT, through Innovate UK (part of UK Research & Innovation):

- Cell and Gene Therapy
- Compound Semiconductor Applications
- Connected Places
- Digital
- Energy Systems
- High-Value Manufacturing
- Medicines Discovery
- Offshore Renewable Energy
- Satellite Applications

Grant funding and co-investment

Innovate UK provides research and innovation funding, through grants, contracts and loans, to businesses from the early stages of idea development to commercialisation.

UKRI and other funding bodies have also made private sector investment a condition of allocating public funds to support scaling up by using match-funding on some of their research and innovation programmes.

Building Digital UK grants funding on the basis that it unlocks co-investment in the market, such as in the Shared Rural Network Programme.

Commercial transactions

DSIT also seeks to deliver some of its ambitions through its involvement in commercial operations, demonstrated by the government's purchase of OneWeb, a low Earth orbit (LEO) satellite constellation.

In July 2020, the government, alongside the Indian telecommunications company Bharti Global, led a successful bid to acquire a significant equity share in OneWeb, with each partner contributing $500 million.

In July 2022 OneWeb signed a Memorandum of Understanding with Eutelsat Communications to merge the two companies with the objective of creating a single, global player in connectivity.

Part Three • Key policy areas and commitments

DSIT has an important role in supporting innovation

To deliver the government's programme of work on innovation, DSIT will need to work with and alongside public research institutions, further education providers, financial institutions, charities, companies and other stakeholders.

The government's view of the innovation system

The July 2021 UK Innovation Strategy defines the innovation system as follows:

> The innovation process features innovators, businesses and researchers at the cutting edge, doing applied research or generating new products and services. But it also involves those businesses seeking to effectively adopt and implement existing innovations … It occurs in an ecosystem in which companies, public research institutions, further education providers, financial institutions, charities, government bodies and many other players interact through the exchange of skills, knowledge and ideas, both domestically and internationally.

Support for innovation to deliver net zero

In October 2021, BEIS published the government's Net Zero Research and Innovation Framework (the Framework). The Framework outlines the research and innovation the government believes will be required to support delivery of its Net Zero Strategy. Our May 2023 report, *Support for innovation to deliver net zero* examined whether the government is set up to deliver value for money from its approach to investment in research and innovation to deliver net zero in the UK. It concluded that the development of the Framework has begun to prompt the right questions within government of how to support the innovation that will be needed. There remains, however, a lack of clarity over who is responsible for overseeing end-to-end progress across the innovation system in the priority areas.

Our recommendation:

That DSIT, working with the Department for Energy Security use & Net Zero should identify the lessons learned from the development of the cross-government Framework, documenting and actively considering them in future to aid consistent and effective support across government for innovation objectives.

Stages of the innovation process

For illustrative purposes, research and innovation can be broken down into stages. In practice, innovation often does not follow a neat stage-by-stage process and will take a less predictable path to market, and many ideas do not succeed.

Stage of the innovation process	Types of activates undertaken at this stage
Research and development	Research and development can be understood as creating and advancing ideas or concepts, typically in science and technology.
Commercial prototype	Prototyping is the process of developing an idea into a material form so it can be validated. This stage typically includes testing the technical aspects of the idea, for example, its performance and safety.
Build and scale	Build and scale involves building an idea to full size to allow for more testing.
Proven commercial proposition	Once an idea meets its requirements and it can be rolled out profitably, it is said to be at the proven commercial proposition phase. From this point, it can go into large-scale production.
Capital markets-ready	An innovation is capital markets-ready when it has been fully developed, and it can establish a new market, or gain a share of an existing market.

Source: National Audit Office analysis of the government's *Net Zero Research and Innovation Framework*, October 2021

DSIT has a wide range of funding and accountability mechanisms to support research and innovation

DSIT's public bodies provide support for research and innovation with non-typical delivery and accountability mechanisms. Examples include UKRI (UK Research & Innovation) and the Advanced Research and Invention Agency (ARIA), organisations which have been legally granted independence from government when making project funding decisions.

Funding decisions independent from government: UKRI and the Haldane principle

UKRI is the national funding agency investing in research and innovation in the UK. It was created through the Higher Education and Research Act 2017 to bring together seven research councils, Innovate UK, and Research England and harmonise and strengthen the UK's research and innovation landscape.

UKRI's vision is for an outstanding research and innovation system in the UK that gives everyone the opportunity to contribute and to benefit, enriching lives locally, nationally and internationally.

Under the provisions of the Act, it is UKRI's legal duty to ensure that **its project funding decisions are made independently from government** as per the Haldane principle.

The Haldane principle states that decisions about which research projects to fund should be made through independent evaluation by experts, based on the quality and likely impact of that research.

Strategic and operational autonomy: Advanced Research and Invention Agency (ARIA)

ARIA was legally established in January 2023 as an executive non-departmental public body, sponsored by the DSIT. It is an independent research body, designed to fund high-risk, high-reward scientific research.

Its mandate is to create new capabilities that can benefit the UK and advance human progress.

ARIA was set up to have **maximum autonomy over its research and project choice; its procedures; and its institutional culture**. Decisions on the programme portfolio should be set by ARIA, not ministers, and allocation of funding to research projects should be decided by those with relevant technical expertise.

ARIA has a UK-wide remit. The four administrations of the UK have committed to protecting **the principles of strategic autonomy, operational autonomy and minimal bureaucracy** in interactions with ARIA.

DSIT is responsible for key legislative and regulatory reforms in data protection and digital information

Online safety

The government has set an objective of making the UK the safest place in the world to go online. To achieve this, in March 2022 the government introduced to Parliament the Online Safety Bill. The Bill received Royal Assent and became an Act in October 2023.

Headline findings

Our July 2023 report, *Preparedness for online safety regulation* found that securing adequate protection of citizens from online harm will be a big new role for Ofcom. It has been preparing for the introduction of the new regulatory regime for online safety at the same time as Parliament has been considering the Online Safety Bill establishing the regime. As a result, Ofcom has had to take account of significant changes to both the regime's scope and timing. Ofcom has made a good start to its preparations and has taken the steps it could reasonably have done by this point: compiling an evidence base to inform its implementation of the new regime; putting in place the capacity, capabilities and organisational design it needs to begin operating the regime; and engaging with stakeholders. It estimates that its cumulative costs in preparing for and implementing the regime could total £169 million by the end of 2024-25, of which £56 million will have been incurred by the end of 2022-23. The full regulatory regime will, however, only come into effect in phases over the two years after the Bill's Royal Assent, and Ofcom still has lots to do in terms of finalising its arrangements.

Ofcom will need to manage several risks in implementing the new regulatory regime to deliver value for money. It will need to move quickly to cover any gaps in its preparations arising from the significant amendments to the Online Safety Bill announced by the government at the end of June 2023 and any further changes before the Bill receives Royal Assent. It has also yet to secure the funding for the extra staff it has identified that it will require. It will need to regulate a very large number of services, the great majority of which have not been regulated before and are unfamiliar with Ofcom and how it works, and which have no UK corporate or economic presence. It will need to cover its costs by introducing fees so that the regime becomes self-financing. It will also need to obtain good-quality data to monitor the compliance of services and to evaluate its own effectiveness and that of the regime. It will be vital for Ofcom to secure public trust by managing the public's expectations about the regime's impact in its early years. This is a significant set of challenges, and Ofcom has already started to consider how it will address them.

Part Four • Major programmes

DSIT leads the delivery of eight programmes which are part of the Government Major Projects Portfolio

Four of these programmes were previously sponsored by BEIS. Three were sponsored by the Department for Digital, Culture, Media & Sport and one was Cabinet Office-led.

DSIT-led programmes had a forecast whole-life cost of £8,959 million and forecast monetised benefits of £39,378 million as at March 2023.

Department for Science, Innovation & Technology (DSIT) programmes on the Government Major Projects Portfolio (GMPP)

DSIT is now responsible for eight projects which were on the GMPP at the end of March 2023

Project/programme	Delivery confidence assessment				End date	Monetised benefits	Whole-life cost
	2019-20	**2020-21**	**2021-22**	**2022-23**		**(£mn)**	**(£mn)**
Project Gigabit To deliver gigabit-capable broadband for the hardest-to-reach parts of the UK through a combination of supply-side and demand-side products.		Amber/ red	Amber	Amber	December 2030	13,509	5,112
New Polar Research Vessel To construct *RRS Sir David Attenborough* to replace two existing polar research/supply vessels with one dual-purpose ship. The programme was being closed down as at 31 March 2023.	Amber	Amber/ green	Green	Green	December 2022	3,170	1,420
Met Office Supercomputing 2020+ Programme To procure a new supercomputer with more computing power than the existing supercomputer.		Amber/ green	Amber	Amber	August 2032	17,874	1,242
Shared Rural Nework To end poor rural mobile coverage by funding the deployment and upgrade of 4G mobile infrastructure in the most remote geographies.			Amber	Amber	March 2040	1,351	512
Open Networks To build a resilient, diverse and open telecoms supply chain, establishing UK telecoms capability as DSIT delivers a diversification strategy.				Amber	March 2025	Not published	325

Part Four • Major programmes

DSIT leads the delivery of eight programmes which are part of the Government Major Projects Portfolio *continued*

Four of these programmes were previously sponsored by BEIS. Three were sponsored by the Department for Digital, Culture, Media & Sport and one was Cabinet Office-led.

DSIT-led programmes had a forecast whole-life cost of £8,959 million and forecast monetised benefits of £39,378 million as at March 2023.

Department for Science, Innovation & Technology (DSIT) programmes on the Government Major Projects Portfolio (GMPP) *continued*

Project/programme	Delivery confidence assessment				End date	Monetised benefits	Whole-life cost
	2019-20	2020-21	2021-22	2022-23		(£mn)	(£mn)
Carbon Storage Research Facility To provide an infrastructure option for an innovative, world-class, CO_2 deep geological storage research facility in the UK.				Amber	September 2028	Not published	315
National Underground Asset Register To standardise, centralise and make available privately and publicly owned data from hundreds of organisations about the location of underground utilities assets.			Amber	Amber	September 2024	3,474	33
Matrix Cluster Transformation Programme To implement the Government Shared Service Strategy for eight government departments by modernising and consolidating back-office systems and services.				Exempt	Exempt	Exempt	Exempt
Total						39,378	8,959

Notes

1. Delivery confidence assessment reflects ratings, reported in the Infrastructure and Projects Authority's (IPA's) annual report, at a fixed point in time using a five-point scale (red, amber/red, amber, and amber/green and green):

• Green means 'successful delivery of the project on time, budget and quality appears highly likely'.

• Amber/green means 'successful delivery appears probable'.

• Amber means 'successful delivery appears feasible but significant issues already exist, requiring management attention'.

• Amber/red means 'successful delivery of the project is in doubt, with major risks or issues apparent in a number of key areas' and

• Red means 'successful delivery of the project appears to be unachievable'.

• Some data is exempt from publication (shown in grey).

2. Amber/green and amber/red ratings were no longer issued from 1 April 2021 when the IPA moved from a five-tier to a three-tier system.

3. 'End date' is the latest approved end date for the programme.

4. Blank boxes are where programmes were not on the GMPP at that reporting date.

5. The 'Total' figures do not include the Matrix Cluster Transformation Programme, which is exempt from reporting.

6. For details of our findings on Project Gigabit see page 19.

Sources: Infrastructure and Projects Authority, *Annual Report on Major Projects 2022-23* and *DSIT Government Major Projects Portfolio Data, March 2023*

DSIT's role in delivering digital infrastructure

DSIT is responsible for the delivery of digital infrastructure across the UK while minimising digital harms to the UK's economic security and society.

At 31 March 2023, DSIT had four digital infrastructure programmes with a forecast whole-life cost of £7,191 million, 80% of the total cost of DSIT's eight major projects in the GMPP (see page 18).

All four programmes had Amber delivery confidence assessment ratings in the Infrastructure and Projects Authority's (IPA's) 2022-23 Annual Report, meaning successful delivery appears feasible but significant issues already exist, requiring management attention.

DSIT's digital infrastructure programmes	Forecast whole-life costs (£mn)
Project Gigabit	5,112
Met Office Supercomputing 2020+ Programme	1,242
Shared Rural Network	512
Open Networks Programme	325
Total	**7,191**

Improving broadband

In 2010, government announced its aim for the UK to have the best superfast broadband network in Europe. It established the Superfast Broadband Programme (the Superfast Programme now known as Project Gigabit) to support broadband roll-out to areas which were not commercially viable.

Our October 2020 report, *Improving broadband* found that the Superfast Programme has extended the nation's broadband connectivity and has delivered benefits, which the Department for Digital, Culture, Media and Sport (DCMS) expected will continue to increase with time. However, in managing the trade-off between coverage and speed, the UK has a broadband network that is not fully future-proof and, less than a decade after launching its Superfast Programme, government has identified the need to upgrade it again.

Our report also found that government has set a very challenging timeline [it has since extended the deadline it had set itself – see page 20 for the current target]. The experience from the Superfast Programme, and our previous work on major programmes, demonstrates the importance of setting and publishing a realistic timetable and continuing to test achievability. DCMS was working towards finalising its plans for its Future Programme

to support nationwide gigabit coverage. In doing so, it must manage the tension between meeting a timeline and serving those in greatest need. Failure to do so risks leaving those left behind by the Superfast Programme even further behind and widening the rural divide.

Roll-out of gigabit-capable broadband across the UK is complex and future success will depend on good data and local knowledge. Prioritising speed of programme delivery over other objectives poses a risk to value for money. Our work on other projects shows that publishing a fixed deadline and not continuing to test whether it remains achievable can negatively influence decision-making and lead to delays and cost overruns. Maximising gigabit-capable build by 2025 meant that DCMS was likely to try to deliver to as many premises as possible in the timeframe, rather than starting with those in greatest need.

We recommended DCMS should for both programmes: work with suppliers and Ofcom to address customer issues with broadband and encourage take-up; set out how it will ensure better outcomes for consumers; and set out how it intends to measure the benefits of its investment.

Part Five ▪ Agencies and public bodies

Overview of DSIT's agencies and public bodies

Building Digital UK

Facts and figures	
Governance	Executive agency
Expenditure 2022-23	£82.7 million
Headcount: 31 March 2023 (full-time equivalents)	305
Geographical remit	UK

About

Building Digital UK is responsible for the roll-out of gigabit-capable broadband and the expansion of 4G mobile coverage in hard-to-reach areas of the UK. It works to ensure that homes and businesses across the UK can access fast and reliable digital connectivity.

It is delivering two overarching programmes in the Government Major Projects Portfolio: Project Gigabit and the Shared Rural Network (page 19). Project Gigabit involves £5 billion of investment to bring gigabit-capable broadband to at least 85% of premises in the UK by 2025, and then nationwide coverage by 2030. The Shared Rural Network programme aims to bring 4G coverage to 95% of the UK landmass by the end of 2025.

Intellectual Property Office

Facts and figures	
Governance	Executive agency
Expenditure 2022-23	£138.7 million
Headcount 2022-23 (full-time equivalents)	1,633
Geographical remit	UK

About

The Intellectual Property Office is responsible for intellectual property rights including patents, designs, trade marks and copyright. It is responsible for intellectual property (IP) policy, education about IP rights and responsibilities, supporting IP enforcement and granting UK patents, trade marks and design rights.

Met Office

Facts and figures	
Governance	Executive agency
Expenditure 2022-23	£249.1 million
Headcount 2022-23 (full-time equivalents)	2,185
Geographical remit	UK

About

The Met Office is the UK's national weather service. Its purpose is to help the UK stay safe and thrive. It provides weather and climate-related services to the armed forces, government departments, the public, civil aviation, shipping, industry, agriculture and commerce.

In 2022-23, the Met Office was assessed, under the government's Public Bodies Review Programme, to be a well-run and governed organisation, structured in an appropriate way to deliver its purpose and functions on behalf of the UK government and wider public.

It is delivering a programme in the Government Major Projects Portfolio: Met Office Supercomputing 2020+ (page 19). The programme involves up to £1.2 billion investment to procure a new supercomputer with more computing power than the existing supercomputer.

Overview of DSIT's agencies and public bodies *continued*

UK Space Agency

Facts and figures	
Governance	Executive agency
Expenditure 2022-23	£649 million (page 11)
Headcount 2022-23 (full-time equivalents)	261
Geographical remit	UK

About

The UK Space Agency (UKSA) is an executive agency of DSIT. It delivers programmes and investments that help to achieve the government's space strategy.

Advanced Research and Invention Agency

Facts and figures	
Governance	Executive non-departmental public body
Budget 2023-24	£152 million
Headcount 2022-23	Not published
Geographical remit	UK

About

Established in January 2023, the Advanced Research and Invention Agency (ARIA) is an independent research body, designed to fund high-risk, high-reward scientific research (page 15).

ARIA may do, or commission or support others to do, any of the following: conduct scientific research; develop and exploit scientific knowledge; collect, share, publish and advance scientific knowledge.

Information Commissioner's Office

Facts and figures	
Governance	Executive non-departmental public body
Expenditure 2022-23	£75.7 million
Headcount 2022-23 (full-time equivalents)	956
Geographical remit	UK

About

The Information Commissioner's Office (ICO) is responsible for upholding information rights in the public interest, promoting openness by public bodies and data privacy for individuals.

Its objectives are to: safeguard and empower people; empower responsible innovation and sustainable economic growth; promote openness, transparency and accountability; and driven by its values, continuously develop the ICO's culture, capability and capacity. It regulates under various information-related legislation including: the Data Protection Act 2018, the UK General Data Protection Regulation and the Freedom of Information Act 2000.

Overview of DSIT's agencies and public bodies *continued*

UK Research and Innovation

Facts and figures	
Governance	Executive non-departmental public body
Expenditure 2022-23	£9,502 million (page 10)
Headcount 2022-23 (full-time equivalents)	7,841
Geographical remit	UK

About

UK Research and Innovation (UKRI) is the national funding agency responsible for investing in science and research in the UK. It brings together the seven Research Councils, Innovate UK and Research England.

UKRI's mission is to convene, catalyse and invest in close collaboration with others to build a thriving, inclusive research and innovation system that connects discovery to prosperity and public good. Its project funding decisions are made independently from government (page 15).

Copyright Tribunal

Facts and figures	
Governance	Tribunal
Budget 2023-24	Not available
Members	10
Geographical remit	UK

About

The Copyright Tribunal is an independent tribunal established under the Copyright, Designs and Patents Act (CDPA) 1988. It is responsible for resolving UK commercial licensing disputes between copyright owners or their agents (collective management organisations) and people who use copyright material in their business.

The tribunal's ongoing objective and priority is to respond promptly and efficiently to all enquiries and disputes.

National Physical Laboratory

Facts and figures	
Governance	Public corporation
Expenditure 2022	£126.8 million
Headcount 2022 (full-time equivalents)	1,109
Geographical remit	UK

About

The National Physical Laboratory is the UK's National Metrology Institute (NMI), providing measurement capability. The National Physical Laboratory is part of the National Measurement System, which provides the UK with a national measurement infrastructure and delivers the UK Measurement Strategy on behalf of DSIT.

The NMI develops and maintains the national primary measurement standards, and collaborates with other NMIs to maintain the international system of measurement.

Overview of DSIT's agencies and public bodies *continued*

Ordnance Survey

Facts and figures	
Governance	Public corporation
Expenditure 2021-22	£163.1 million
Headcount 2021-22 (full-time equivalents)	1,296
Geographical remit	Great Britain

About

Ordnance Survey is Great Britain's national mapping agency. It captures, maintains and provides geospatial data and services to individuals, businesses and governments, both in Britain and internationally.

Its vision is to be recognised as a world leader in geospatial services; creating location insight for positive impact. Its strategic objectives are to: provide world-leading geospatial services and data in the UK and internationally; operate as a sustainably profitable commercial organisation, on a self-financing basis; support the Geospatial Commission in its role to provide strategic oversight of the geospatial ecosystem in the UK; and carry out the activities as anticipated by Ordnance Survey's powers and duties.

British Technology Investments Ltd

Facts and figures	
Governance	Other
Budget 2023-24	£21.1 million
Headcount 2021-22 (full-time equivalents)	0
Geographical remit	UK

About

British Technology Investments Ltd is responsible for investing in advanced technology firms through the National Security Strategic Investment Fund.

Diamond Light Source Ltd

Facts and figures	
Governance	Other
Expenditure 2022-23	£121.3 million
Headcount 2022-23 (full-time equivalents)	814
Geographical remit	UK

About

Diamond Light Source Ltd is a not-for-profit government company that provides national science infrastructure that is free at the point of use. Primary facilities are the national Synchrotron along with Cryo-electron microscopy at the Harwell Campus, all available to researchers through a competitive application process, provided that published results are in the public domain.

The company was established and funded as a joint venture between two shareholders: UKRI and the Wellcome Trust.

Its vision is to be a world-leading centre for synchrotron science, particularly in areas of excellence at UK universities, research institutes and in industry; a cornerstone of a world-class site for scientific discovery and innovation at Harwell.

Part Five ▪ Agencies and public bodies

Overview of DSIT's agencies and public bodies *continued*

Government Office for Science

Facts and figures	
Governance	Other
Expenditure	Not published
Headcount	Approximately 150
Geographical remit	UK

About

The Government Office for Science's (GO-Science's) role is to ensure that government policy and decision-making are informed by the best scientific evidence and strategic long-term thinking. GO-Science is led by the Government Chief Scientific Adviser (GCSA).

GO-Science's responsibilities include: giving scientific advice to the Prime Minister and Cabinet through a programme of projects that reflects the priorities of the GCSA; ensuring and improving the quality and use of scientific evidence in government; providing the best scientific advice in emergencies through the Scientific Advisory Group for Emergencies; helping the independent Council for Science and Technology provide high-level advice to the Prime Minister; supporting strategic long-term thinking in government; and developing the Government Science and Engineering profession.

Office of Communications (Ofcom)

Facts and figures	
Governance	Other
Expenditure 2022-23	£175.2 million
Headcount 2022-23 (full-time equivalents)	1,256
Geographical remit	UK

About

The Office of Communications (Ofcom) is responsible for regulating a wide range of electronic communications services including TV and radio sectors, fixed-line telecoms, mobiles and postal services as well as the airwaves over which wireless devices operate.

Ofcom's principal duties are to further: the interests of citizens in relation to communications matters; and the interests of consumers in relevant markets, where appropriate by promoting competition. It is required, among other duties, to secure: optimal use of the electro-magnetic spectrum; availability of a wide range of TV, radio and electronic communication services of high quality and wide appeal; adequate protection from unfair treatment in TV and radio programmes and unwarranted infringements of privacy. Since 2022, it has a role to make sure telecoms providers comply with their security duties to help ensure the UK's telecoms networks are safe and secure. It is taking on additional responsibilities as the UK's online safety regulator under the Online Safety Act.

Phone-paid Services Authority

Facts and figures	
Governance	Other
Expenditure 2022-23	£5.3 million
Headcount 2022-23 (full-time equivalents)	35
Geographical remit	UK

About

The Phone-paid Services Authority is the UK regulator for content, goods and services charged to a telephone bill. Its strategic purpose is to regulate the market in the consumer interest. Ofcom defines the scope of its regulatory remit. Phone-paid services are the goods and services that can be bought by charging the cost to a telephone bill or pre-pay account.

It is principally funded by a levy on the value of services provided, which is collected by network operators.

Overview of DSIT's agencies and public bodies *continued*

UK Shared Business Services Ltd

UKSBS
Shared Business Services

Facts and figures	
Governance	Other
Expenditure 2022-23	£48.8 million
Headcount 2021-22 (full-time equivalents)	581
Geographical remit	UK

About

UK Shared Business Services Ltd is the shared services provider to government, providing HR and payroll, finance, procurement and IT business services.

Its mission is to provide high-quality and easy-to-use business services that add value to its partners, so they can focus on achieving the best outcomes for the British people and the UK economy. Its public sector partners include DSIT, Department for Business & Trade, Department for Energy Security & Net Zero and UKRI.

The Nesta Trust

nesta

Facts and figures	
Governance	Other
Expenditure 2022-23	£38.5 million
Headcount 2022-23 (full-time equivalents)	0
Geographical remit	UK

About

The Nesta Trust is an endowment fund established to support Nesta, the UK's innovation agency for social good. Nesta designs, tests and scales new solutions to society's biggest problems.

The Nesta Trust is a charitable trust and Nesta is a company limited by guarantee. Both entities are registered with the Charity Commission.

Nesta's vision is by 2030 that it will have significantly improved the lives of millions of people. It has three innovation missions: a fairer start for every child; a healthy life for all; and a sustainable future where the economy works better for people and the planet.

Information about these agencies and public bodies has been drawn from published documents.

In most cases headcount and expenditure information is taken from the relevant body's audited 2022-23 accounts, with other sources only used when these are not available. Budget information is taken from the 2023-24 Main Estimates, published in May 2023.

Where bodies report operating expenditure separately from other expenditure, we have included the operating expenditure figures.