**STFC Strategic Delivery Plan 2022-25: Summary** *Full Strategic Delivery Plan available* [*here*](https://www.ukri.org/wp-content/uploads/2022/09/STFC-010922StrategicDeliveryPlan2022.pdf)

The Science and Technology Facilities Council (STFC) is a world-leading research and innovation organisation funding research in particle physics, nuclear physics, astronomy, space science and particle astrophysics. It also builds and operates many of the UK’s largest multi-disciplinary research facilities at their national research and innovation campuses, which are essential to delivering UKRI’s collective ambitions. STFC’s fundamental research seeks to understand the Universe from the largest astronomical scales to the tiniest constituents of matter. Its funding has enabled the UK to play a leading role in some of the most fundamental discoveries of the last fifty years, including the Higgs Boson at CERN and gravitational waves. The Strategic Delivery Plan presents STFC’s main goals for the next three years covering new initiatives in the fundamental science programme, new investments in facilities in their National Laboratories, and their ambitions to grow their links to business and industry at their Research and Innovation campuses.

STFC’s mission is to discover the secrets of the Universe, to develop advanced technologies, and to innovate to solve real-world challenges. To deliver this mission they will:

* Provide high-quality strategic leadership for UK frontier research in particle physics, nuclear physics, astronomy, space science and particle astrophysics
* Actively position their National Laboratories and large-scale facilities as world-class centres of excellence in multi-disciplinary science, engineering and technology
* Provide effective leadership of the UK participation in world-leading international facilities, championing and promoting UK interests and maximising the scientific and industrial returns to the UK
* Catalyse the development of next generation technologies and support the mechanisms to exploit them
* Exploit their National Laboratories, Campuses and Science Programme as an interlinked ecosystem for innovation in science and technology, accelerating commercialisation and bringing competitive advantage for the UK as well as broader industrial, societal, and economic impact
* Provide campus-wide leadership to ensure that Harwell and Sci-Tech Daresbury are national beacons of excellence in science and technology that maximise the benefits to their academic, industrial, and regional stakeholders
* Deliver a world-class training programme to develop the skills at all levels needed by UK research and industry to maximise UK leadership in frontier research, leading edge science, technology, engineering and data science, and new disruptive technologies
* Maximise the impact of their scientific programme to engage the public in science and technology and encourage the next generation to pursue careers in STEM subjects
* Working across disciplines as part of UKRI and with external partners, using their expertise to target national priorities and transformative technologies, such as Net Zero, Space, Defence and Security, and application of quantum technologies

**Purpose**: ‘To discover the secrets of the Universe, develop advanced technologies, and innovate to solve real-world challenges. Our vision is for the UK to be a world-leader in fundamental science, with outstanding large-scale national facilities and research and innovation campuses that are internationally recognised as beacons of excellence.’

**Principles for change**: ‘We will embed the principles of diversity, resilience, connectivity and engagement across all our work, to drive change and create the conditions for an outstanding research and innovation system’

**Strategic objectives:**

1. **World-class people and careers**: ‘Training a pipeline of skilled engineers, technicians and scientists to meet the increasing demand of research and industry, and inspiring future generations to study and work in research and innovation’
   * Delivering world-class training – increasing support for early-career researchers through a budget uplift to consolidated grants; implementing the Technician Commitment Delivery Plan
   * Engaging the next generation – prioritising Wonder initiative of public engagement activities targeting young people in relatively economically disadvantaged areas, and from cultures that are traditionally under-represented in STEM subjects; funding and incentivising academic communities to develop and participate in outreach and public engagement
2. **World-class places**: ‘Developing and deploying world-class national multidisciplinary facilities, leading the UK’s participation in international infrastructures, and growing a thriving ecosystem for academic and industrial users and partners at the Harwell and Sci-Tech Daresbury Campuses’
   * Providing leadership of UK participation in world-leading international facilities
   * Maintaining National Facilities as Centres of Excellence – ISIS Neutron and Muon Source, Central Laser Facility, Diamond Light Source
   * Next generation world-class capabilities, aiming for Net Zero operation of facilities and laboratories by 2040
   * World-class research and innovation campuses – Harwell and Sci-Tech Daresbury
3. **World-class ideas**: ‘Championing UK global leadership in research to understand the universe, its fundamental constituents, and their interactions and developing next-generation technologies’
   * Leveraging investments in international organisations eg CERN, ESA
   * Continue funding of frontier research programmes, providing funding of £226m over 3 years, increasing on the ~390 FTE researchers currently supported by STFC grants
   * Increase investment by £19m over 3 years in frontier research programmes by yearly increases to consolidated grant funding for science exploration
   * Strategic investment in science areas – new funding for blue-skies research and development related to scientific programmes, rising to £2.5m per year by 2024, to seed new technological developments for down-stream commercialisation funding
4. **World-class innovation**: ‘Accelerating end-to-end innovation and stimulating business growth through access to our research, cutting-edge facilities and laboratories and network of experts, companies and private partners at our Campuses and Clusters’
   * Exploiting discoveries – simplifying the academic-focussed commercialisation programmes into a single £2.5m per year scheme by 2024; working with Innovate UK to develop a more integrated pipeline of technology development, commercialisation and scale-up
   * Accelerating commercialisation
   * Providing industry access to world-leading capabilities
5. **World-class impacts**: ‘Exploiting highly technical expertise to develop transformative technologies to target national priorities in space, quantum, net zero, computing, digital and security and create industrial, societal and economic impact’
   * Space – working with UKSA to deliver a National Space Strategy implementation plan for astrophysics research; investing £9.6m to deliver the SWIMMR Space Weather programme
   * Building a Green Future – developing green technologies by supporting a programme of targeted Net Zero research
   * Investing in transformative technologies – driving end user adoption and commercialisation of quantum computing; developing a fully resources Quantum Readiness programme; investing £7.5m in a new ‘AI for Science’ initiative to embed AI in the operation of multi-disciplinary facilities; work across UKRI to create a Digital Research Infrastructure
   * Building a secure and resilient world – developing new technology for real-time monitoring of potential threats and security risks; developing world-leading simulation capability in targeted areas; collaborating with the MoD to develop a new programme to support the UK’s key ‘Security and Resilience’ agenda across areas including laser-based technologies, space, quantum technology and computational fluid dynamics