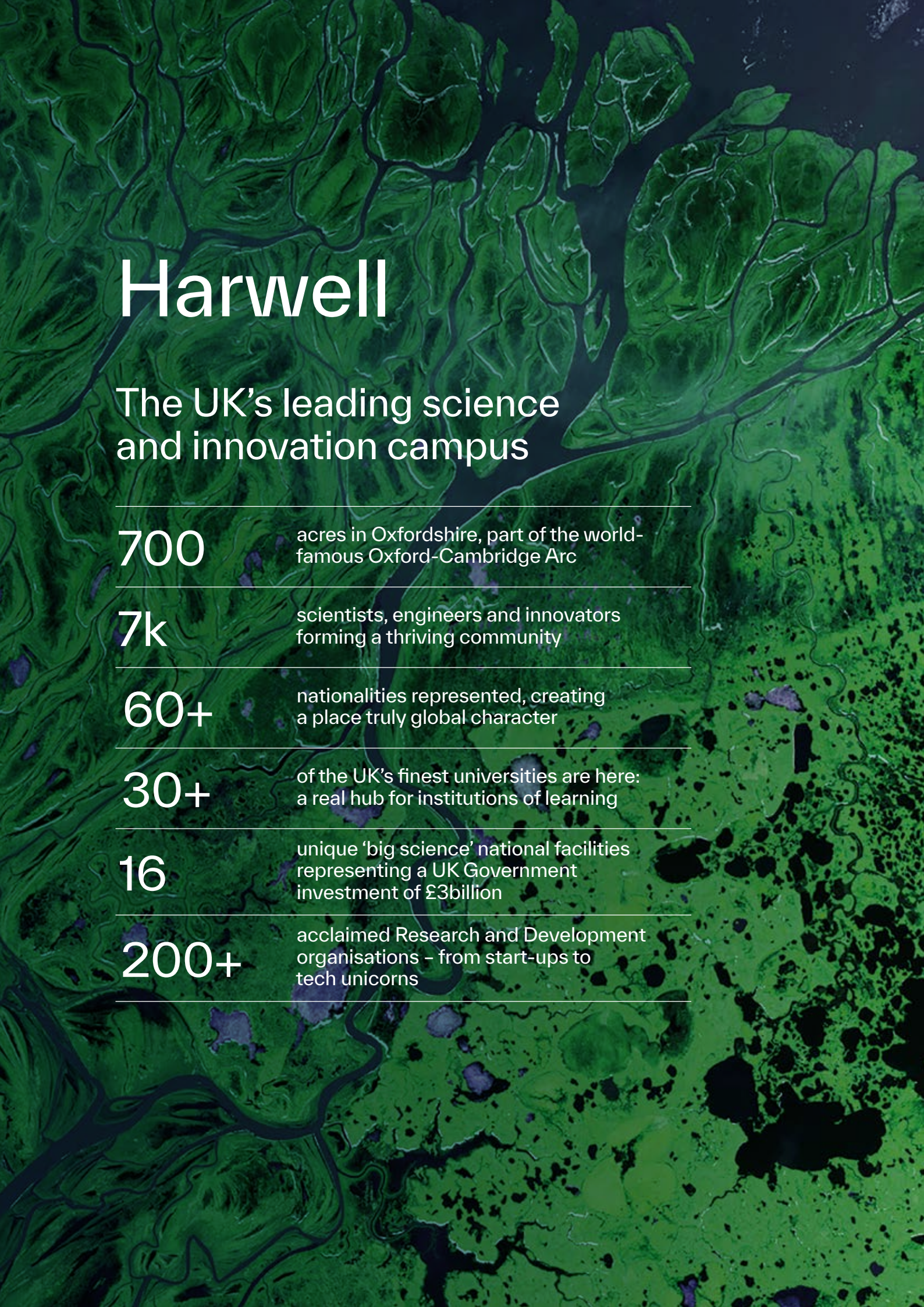
# Be part of the UK's leading science and innovation campus

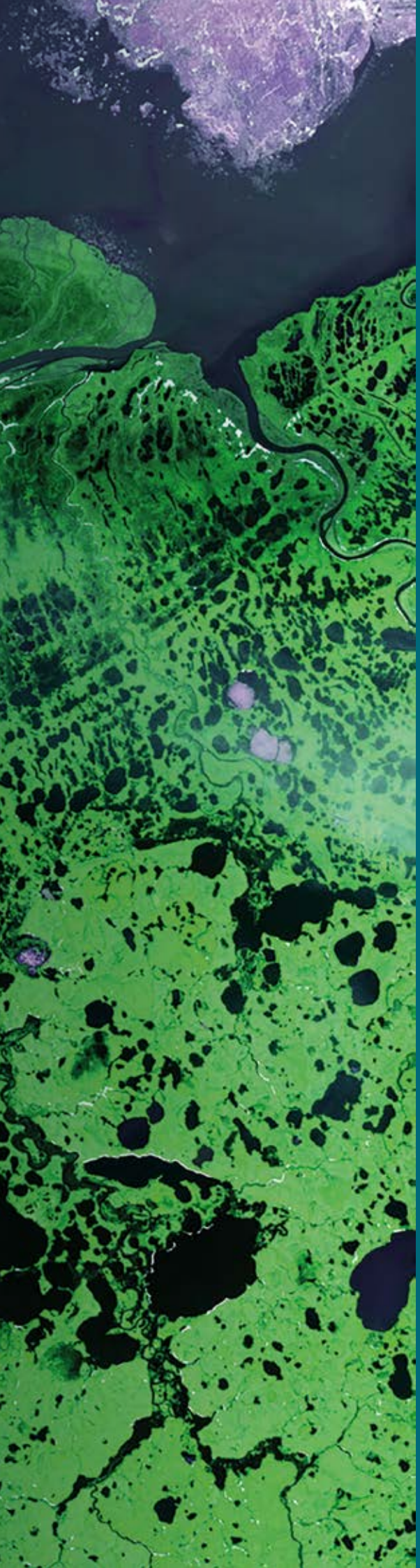
HARWELL



# Harwell

## The UK's leading science and innovation campus

| | |
|---|---|
| 700 | acres in Oxfordshire, part of the world-famous Oxford-Cambridge Arc |
| 7k | scientists, engineers and innovators forming a thriving community |
| 60+ | nationalities represented, creating a place truly global character |
| 30+ | of the UK's finest universities are here: a real hub for institutions of learning |
| 16 | unique 'big science' national facilities representing a UK Government investment of £3billion |
| 200+ | acclaimed Research and Development organisations – from start-ups to tech unicorns |



# Contents


RAL Space

# Introduction

**Harwell is the UK's leading science and innovation campus, and is embarking upon a programme of sustainable development with 5m sq ft masterplan, to be delivered by 2027.**

## Now

- Globally recognised as having a track record of ground-breaking innovation through the extensive interdisciplinary capabilities across life and physical sciences
- Health, Space, Energy and Quantum Clusters, underpinned by over £3bn of national research infrastructure.
- 200 organisations, 7,000+ people, 60 nationalities
- 10,000+ visiting researchers per year from industry and academia
- 30+ Universities researching on campus
- Thriving culture and community; over 30 clubs including football, rugby, rounders and cricket
- Fast travel connections to London, Heathrow and Oxford


## Next

- 1.5m sq ft of commercial space
- New homes, hotel and amenities by 2027
- Next step in delivering the 5m sq ft campus Masterplan
- 15,000 + people

# Where the world's brightest minds cluster together

Harwell's four industry clusters have created a unique environment where perspectives, notions and methods can be exchanged across traditional divides. They also encourage new start-ups to emerge and expand the remit of the clusters themselves, whether in space, energy, health or quantum computing. This degree of interaction has even led to technology designed for one sector inspiring breakthroughs in others, for example, x-ray capability developed for space has been used to improve cancer detection rates here on earth.

Every day, we bear witness to the intrepid work of the industry's most enlightened businesses and the planet's brightest minds. Our community includes:

- Oxford Nanopore Technologies
- Vaccitech
- Oxford Space Systems
- European Space Agency
- UK Space Agency
- RAL Space
- Diamond Light Source
- ISIS Neutron and Muon Source
- Medical Research Council
- UK Health Security Agency (UKHSA)
- Thales Alenia Space
- Catalent Biologics
- UK Atomic Energy Authority
- Science and Technology Facilities Council (STFC)
- Faraday Institution
- Satellite Applications Catapult
- Agilent Technologies
- National Quantum Computing Centre
- Oxford University
- Rosalind Franklin Institute
- Element Six

# Harwell's cluster model

**Forging new connections, solving global challenges**

Innovation clusters have been proving their worth worldwide for decades. Harvard Business Professor Michael E. Porter describes them as concentrations of talent, technology, facilities and investment which drive sustainable economic growth - often with a focus on a core competency. At Harwell, we go further. We take a cross-disciplinary approach that bridges sectorial silos. And we also offer proactive, dedicated cluster managers who help your organisation connect, innovate, grow and thrive.

The evidence is clear: innovative companies are most successful when they are part of a thriving community that features:

- A critical mass of research and innovation talent
- Leading academic institutions and scientific facilities
- Consistent national and local government support
- Agile investment capital
- A range of large and small businesses - from start-ups to scale-ups to sector leaders
- Clear, collaborative governance

Harwell leads the world in making this model work. It's why we've more space organisations within walking distance of one another than anywhere else and have Europe's highest concentration of cutting-edge scientific facilities – to give just two examples.

**A fertile R&D ecosystem**

Our vibrant environment is concentrated around Space, Energy and Health – with the exciting addition of quantum anchored by the National Quantum Computing Centre from 2024. This has created a diverse network of 6,000 researchers and 200+ organisations, where research, innovation and commercial know-how are fuelled by £3 billion of public investment.

World-leading organisations like The European Space Agency, Diamond Light Source, the Rosalind Franklin Institute and the Faraday Institution rub shoulders with ambitious start-ups, growing businesses and the 30 or so universities active on campus at any one time. This creates almost limitless potential for people to collaborate and for technologies that develop in one sector to help shape another.

Project Darwin is one example. Their autonomous shuttle bus circulate around the campus using data and AI, satellite and terrestrial technologies. The project involves a range of public and private partners all working to develop safer, cleaner transport for real world environments.

**Our cluster managers: connecting innovators**

Join the Harwell clusters and you'll enjoy single-point-of-contact support from a dedicated cluster manager who knows their sector – and the Harwell network – inside out. They help each cluster grow by facilitating networking events and activities, as well as creating an open, richly-communicative environment that enables the organic, informal sharing of ideas and opportunities.

Critically, our cluster managers' work complements extensive additional guidance and support. This includes Harwell's start-up incubator programme, an accelerator initiative now expanding beyond the Space Cluster, and the Proof of Concept grant programme funded by the UK's Science and Technology Facilities Council (STFC).

**Interconnectivity underpinned with trust**

At Harwell, our face-to-face support means members of our community see us as an independent resource they can trust. Our cluster managers' insight, industry expertise and discretion create networking opportunities simply unavailable elsewhere. Becoming part of the Harwell success story means new, multi-disciplinary possibilities for taking your organisation forward right on your campus doorstep – supporting growth across the UK and helping the country evolve as a science superpower.

**"We do more than just attract exciting new organisations to join Harwell's clusters. We proactively help them make the connection to succeed once they're here."**

Barbara Ghinelli, Cluster Director, UKRI

# HARWELL ENERGY

- Diamond Light Source
- Siemens
- Johnson Matthey
- Faraday Institution
- Jacobs
- Ricardo
- ISIS Neutron Muon Source
- Frazer Nash
- Circle Oil
- Volt Vision
- Woodruff Scientific

**Harwell Energy Tech Cluster is the UK's go-to location for energy-related companies that want to push boundaries in a sector whose importance is hard to overstate.**

# Energised to tackle net zero

**Seven-plus decades of radical thinking underpin Harwell's fast expanding Energy Tech Cluster. From post-war atomic energy research, the ISIS Neutron and Muon Source and the Central Laser Facility, to our world-leading Diamond Light Source and recent work scoping out space-based, solar power generation.**

### A go-to location

Since our launch in 2018 – centred on the flagship Faraday Institution – we've brought together more than 80 participants on site and over 100 in our wider network. Support for incubation, acceleration, funding, technical partnerships, expertise and skills is all available. A single point of contact Energy Tech Cluster manager helps to navigate and connect. And there are countless networking and partnering opportunities across our Space, Quantum and Life Science Clusters.

Backed by world-class facilities campus-wide, also including the Extreme Photonics Applications Centre (EPAC) and a green ammonia demonstrator, this multi-disciplinary approach is what makes us the UK's go-to location for energy-related companies. Together, we're pushing boundaries in a sector whose importance for our future is hard to overstate.

### Rising to the renewables challenge

The world is facing its toughest ever test with the urgent search for clean, carbon-free energy. It means the Energy Tech Cluster has a critical role to play supporting the climate change agenda and the UKRI's 'net zero' ambitions to 2040.

Many of our organisations and businesses are actively engaged with the UK Government's 'Ten Point Plan for a Green Industrial Revolution', working on projects such as zero carbon energy storage, battery research, PV, wind energy and zero carbon fuels. Energy Tech is leading the way with our unique 'Net Zero Living Laboratory' initiative.

Using a 'real' community of users and facilities as an analogue of mixed-use industrial sites, we can develop, test, evaluate and refine new energy systems in a real-world environment before they're rolled out more widely. This also accelerates the development of new solutions, with the added advantage of Harwell's vast pool of technical knowledge to hand.

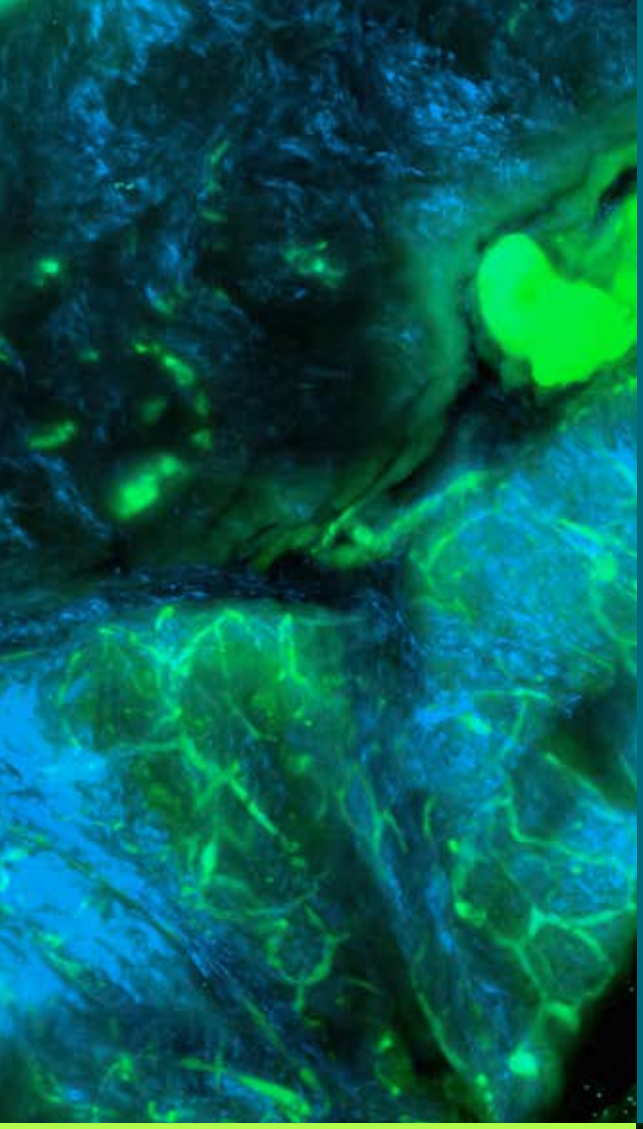
### Bringing investment closer

Access to investment is extremely well developed in the Energy Tech Cluster. Our Proof of Concept programme funds cluster businesses to work with other organisations to collaborate on new technologies using our facilities. The Cluster enjoys close relationships with private equity, banks and wider financial networks. Tapping into resources such as these can make the difference between having brilliant ideas and transforming them into commercial reality.

### Delivering real success

Energy Tech's pioneering Jet Zero project is just one example of the way we offer unrivalled support to businesses. Kickstarted through the Proof of Concept scheme and now aligned with multi-million-pound funding from the IP Group, this close collaboration between Oxford-based Reaction Engines and the UK Science and Technology Facilities Council could see zero carbon ammonia replace kerosene as jet fuel. With only minimal modifications to conventional jet engines needed, it's both a clean and cost-effective solution with massive global potential.

The success of QDot backed by the Faraday Institution offers another take on our cluster's winning formula of concentrated talent, technology and support. By using cooling techniques first developed for nuclear fusion reactors that reach temperatures five times hotter than the sun, QDot engineers are aiming to cut electric vehicle battery charging by two thirds. It's a game-changing idea that could help make EV adoption mainstream much sooner.

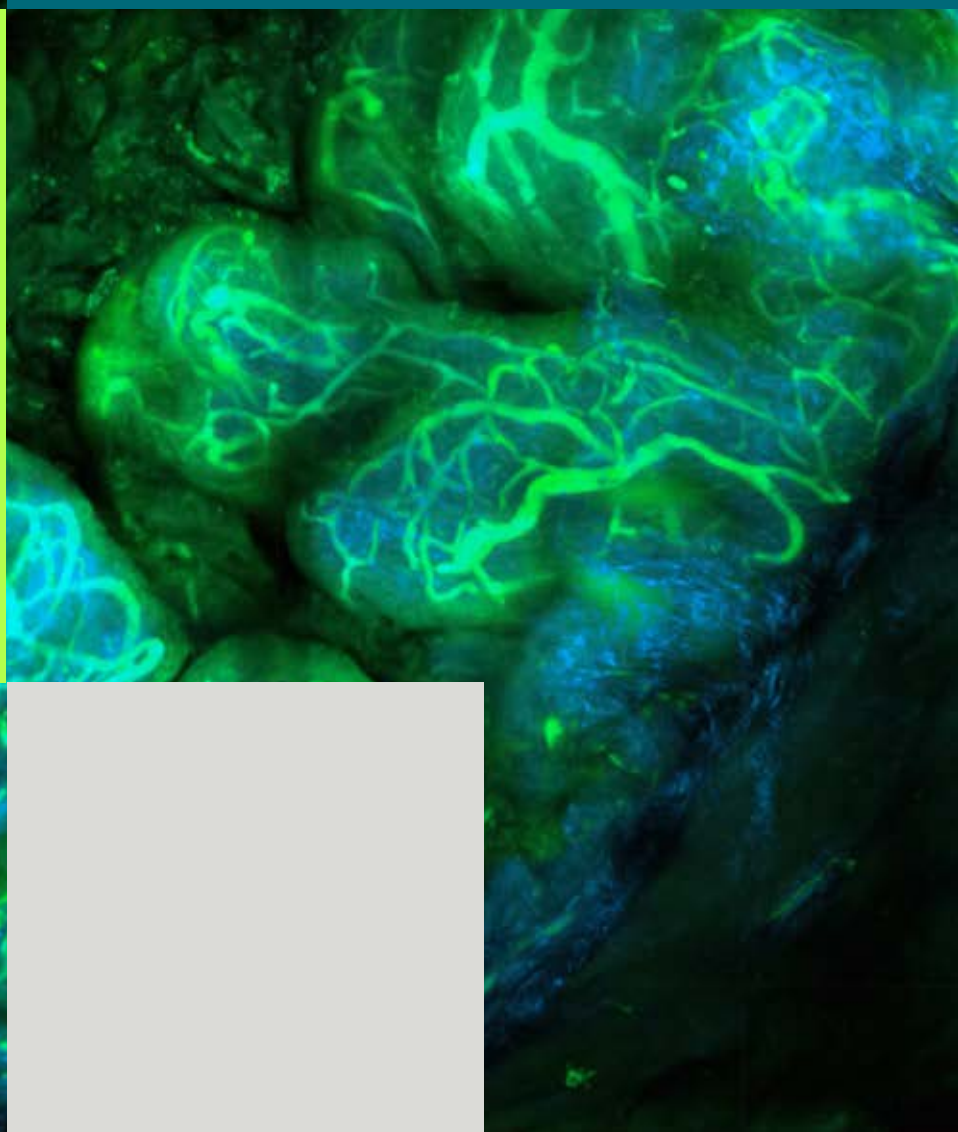


# HARWELL HEALTH

- Catalent Biologics
- Oxford Nanopore Technologies
- Rosalind Franklin Institute
- Nucleic Acid Therapy Accelerator (NATA)
- Medical Research Council
- Vaccitech
- Agilent Technologies

**“Real innovation is whatever discipline often occurs at the interface between areas of expertise.”**

Sir John Bell, Regius Professor, University of Oxford



# A world leader in advanced medicines

**With a 700-acre footprint, Harwell's Health Tech Cluster is part of the country's largest science campus and a prestigious Life Science Opportunity Zone. But it's our combination of unique scientific facilities, business know-how and ground-breaking scientific research that really sets us apart. From medtech and biopharma, to medical imaging and cell and gene therapy, we're answering the fundamental questions impacting human health today.**

### A pro-active approach to healthcare

Working at Harwell means on-the-doorstep access to an unrivalled number of world-leading facilities. These include the Rosalind Franklin Institute and the Diamond Light Source national synchrotron. Having these incredible resources in one place makes Harwell a truly inspiring place to work – but one with practical and commercial benefits, too.

We can stay ahead of the industry curve, forecasting the issues that are likely to influence the UK and global healthcare sector. We can pioneer new technologies in response to those challenges. And both our researchers and businesses can advance products to the clinical or commercial stage much more quickly – meaning they have real-world impact much sooner.

### The cross-fertilisation of ideas

Multidisciplinary research and development with the Energy and Space Clusters at Harwell is another key strength. By sharing ideas and approaching questions from diverse angles, companies can discover new solutions they may not have arrived at on their own – validating and developing pioneering medicines as a result. Take our response to the COVID-19 pandemic, for example. Scientists at the Rosalind Franklin Institute discovered that a unique antibody produced by llamas could help fight off the SARS-CoV-2 virus that causes COVID-19.

And then there's Adaptix, the company that developed a pioneering portable 3D medical X-ray machine based on technology used to study stars in distant galaxies. This allows doctors to get a more comprehensive view of areas where they suspect tumours are growing, leading to earlier diagnosis and more effective treatment.

### One location, global presence, endless opportunities

Whether they're a start-up, an established partner or an SME looking to scale up, every organisation here has what they need. Alongside facetime opportunities with world experts and access to national facilities, this includes the right business support, incubation, acceleration, serviced laboratories and accommodation. Crucial access to funding, strategic partners, and regular networking events is all channelled through our dedicated cluster manager.

Working at Harwell also puts you at the centre of a national life sciences network and the UK's 'golden triangle', which includes the science parks in London, Oxford and Stevenage. With growing scope to collaborate at local, national and international level – alongside our £3bn investment on site – Harwell is set to become the national life science hub and a leader for healthcare around the world.

# HARWELL SPACE

- Oxford Space Systems
- European Space Agency
- UK Space Agency
- RAL Space
- Satellite Applications Catapult
- Astroscale
- Thales Alenia Space

**The Harwell Space Cluster is the best place to start your journey in the UK space sector and engage with the innovation taking place here every day.**

# Unlocking the endless possibilities of space

**As the UK's space gateway, we've built a global reputation for innovation – from space science research to ground-based commercial solutions. Today, the Harwell Space Cluster forms an integral part of the UK's space sector and has grown into a dynamic, enterprising ecosystem of 105 space organisations employing over 1,100 people.**

### A global space hub

At the gravitational heart of our cluster is RAL Space. With more than 50 years of expertise, it has flown over 210 instruments into space, including the Gaia Spacecraft, surveying a billion stars in our galaxy since 2013. The European Space Agency (ESA) established a major hub for satellite communications here in 2009. Other core organisations include the UK Space Agency, the ESA Business Incubation Centre, the Satellite Applications Catapult, and Astroscale - a leading company tackling the critical problem of space debris.

Whether it's around funding space research or sending kit into space, our focus on inward investment also attracts a whole range of organisations, from small businesses and young start-ups to multinational aerospace companies like Airbus and Lockheed Martin. Over the last decade, companies like Oxford Space Systems (OSS) have grown from start-up to major producer of lightweight satellite hardware structures.

Support for incubation, acceleration, funding, technical partnerships and expertise offers cluster members a unique place to grow or find industry partners, facilitated by our dedicated cluster manager. And, unlike any other space cluster on Earth, every person here is only a walk or bike ride away from incredible open access facilities.

### Research with real-world impact

Cross-over between our Space, Health Tech, Energy Tech and Quantum clusters drives Harwell's multidisciplinary approach. But it also creates new commercial opportunities – pushing our companies to transform pioneering science into real-world solutions. siHealth, for example, use space data to control people's sun exposure. Kayser Space work on deploying microgravity platforms in space to stimulate drug discovery. And Rezatec, a geospatial data analytics company, use space data to track forest lifecycles, predict burst water mains, and maximise crop potential. Like OSS, Rezatec grew in just seven years from a small start-up to a company of 50+ people.

### Bringing the future closer

Capitalising on the disruptive changes happening in space technology right now, and building links with other international space clusters, means we're helping the country to achieve its National Space Strategy goal: for the UK to be 10% of the global space-related economy by 2030. By driving world-leading space research and technology, and spotting valuable commercial opportunities, we're opening doors to the next generation of space discovery, satellite innovations – and, crucially, what exploration of the universe could mean for life on our planet.

# H^RWELL QUANTUM

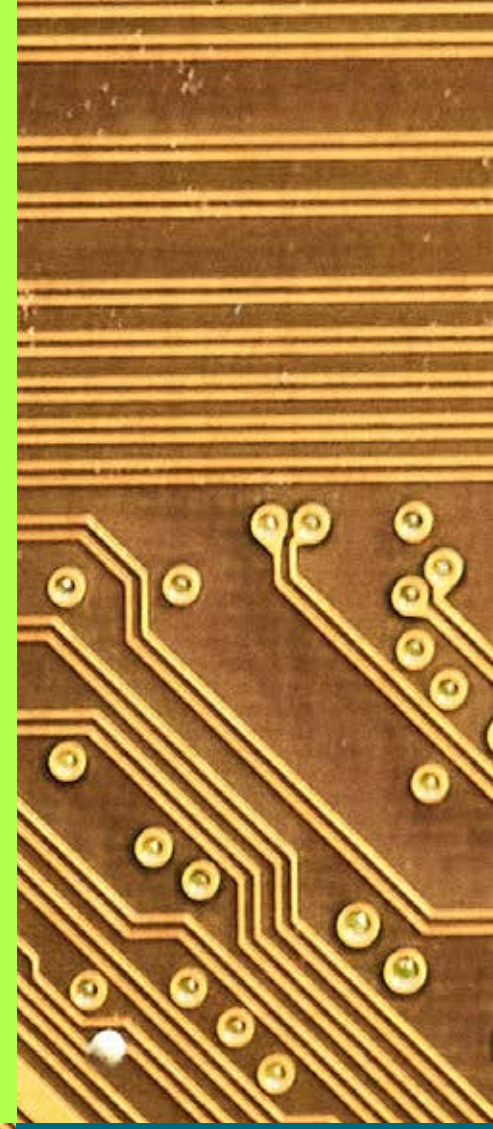
National Quantum Computing Centre (NQCC)

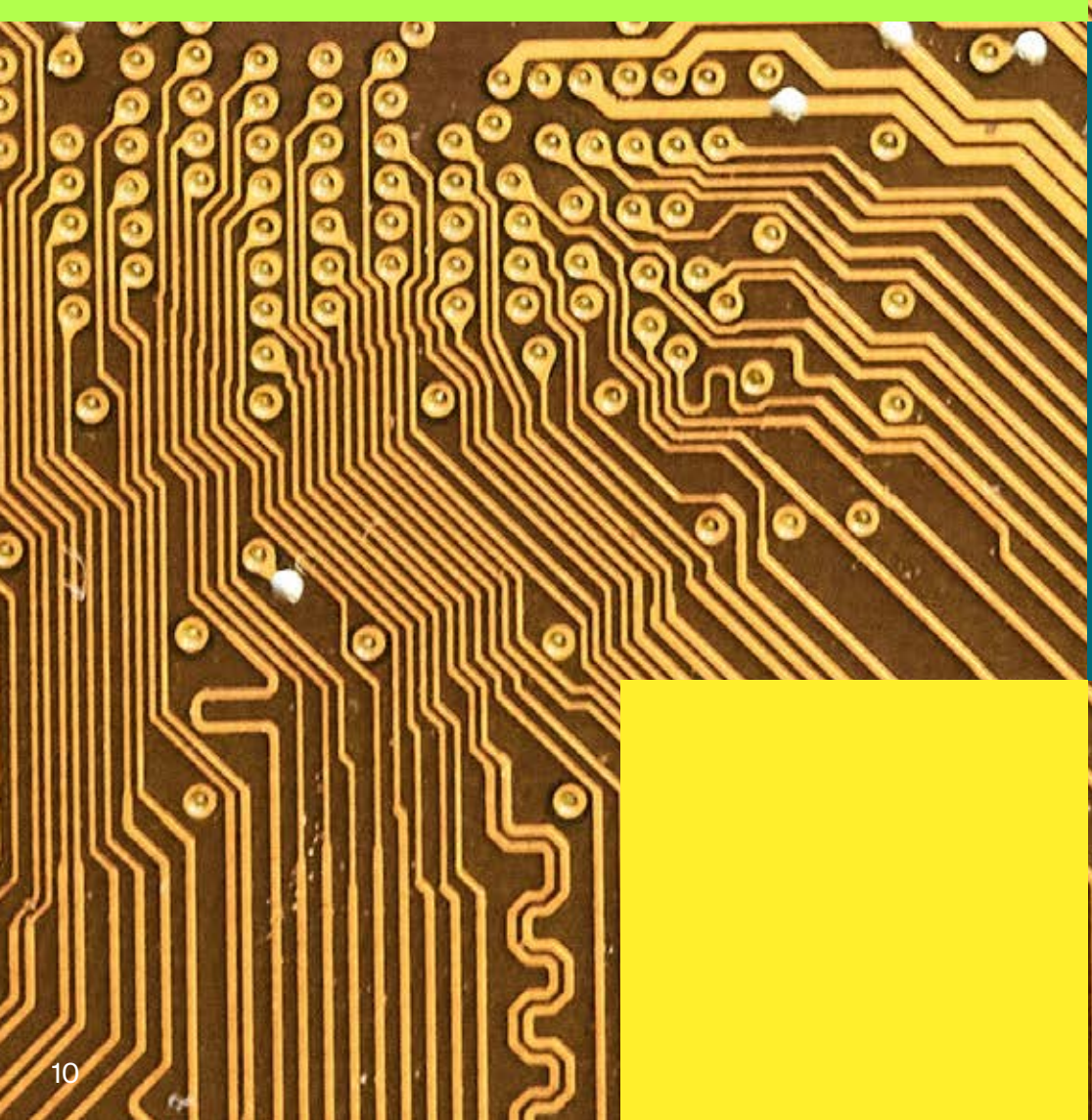
Element Six

RedWave Labs

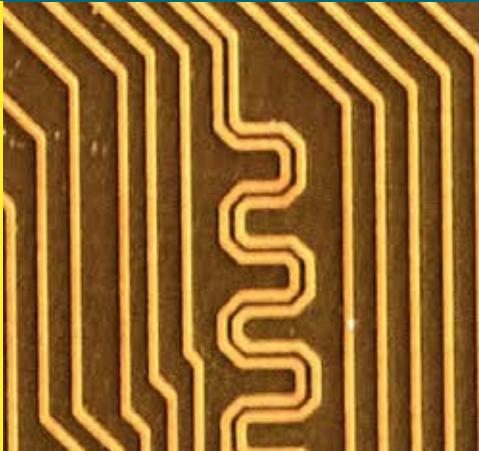
Science and Technology Facilities Council (STFC)

Jisc





**From 2023, Harwell will be home to the UK's National Quantum Computing Centre (NQCC)**



# Harnessing the power of quantum to solve global problems

**Quantum computing has the potential to be a breakthrough technology, leading to exponential increases in computing capability. Quantum applications could transform the way in which we design new medicines, protect financial systems, or analyse big data.**

Harwell is leading the way in developing quantum computing in the UK. The High Performance Systems Group (HPSG) operates from Harwell, providing computing support to the STFC national facilities. Today, dozens of organisations on campus are doing leading work on quantum computing including the RAL Space Quantum Laboratory, the STFC cryogenics team, Element Six and RedWave Labs. One example of this work – Element Six's development of a quantum grade CVD diamond, DNV B1, won a prestigious E&T Innovation Award in the R&D category in 2021.

Our position at the heart of the UK's quantum ecosystem will be confirmed by the opening of the new National Quantum Computing Centre (NQCC). This landmark facility, funded by UK Research and Innovation and run by the Science and Technology Facilities Council (STFC), is already making grants and will fully open in 2023. The NQCC will bring together academia, business and government to work on scaling up quantum technology.

We are creating a dedicated quantum cluster to support this flagship centre and broader ecosystem. New quantum-ready buildings are being planned for organisations moving onto campus and a dedicated cluster manager will support these organisations and foster cross-disciplinary collaboration across our 7,000 strong scientific community.

National Quantum Computing Centre

Catalent Biologics

Quad Two


Zephyr Building

# Recent developments

Harwell's team have a proven record of successfully delivering millions of square feet of complex construction projects both on and off the campus.

Recent schemes include **Catalent** (145k sq ft), **Oxford Nanopore Technologies** (35k sq ft), **Zephyr Building** (56k sq ft), **Agilent Technologies** (32k sq ft) , **Element Six Building** (75k sq ft), the award-winning **Zeus Building** (60k sq ft), **BEPO** (50k sq ft) and **Quad Two** (39k sq ft).

Zeus Building


Oxford Nanopore Technologies

Quad One

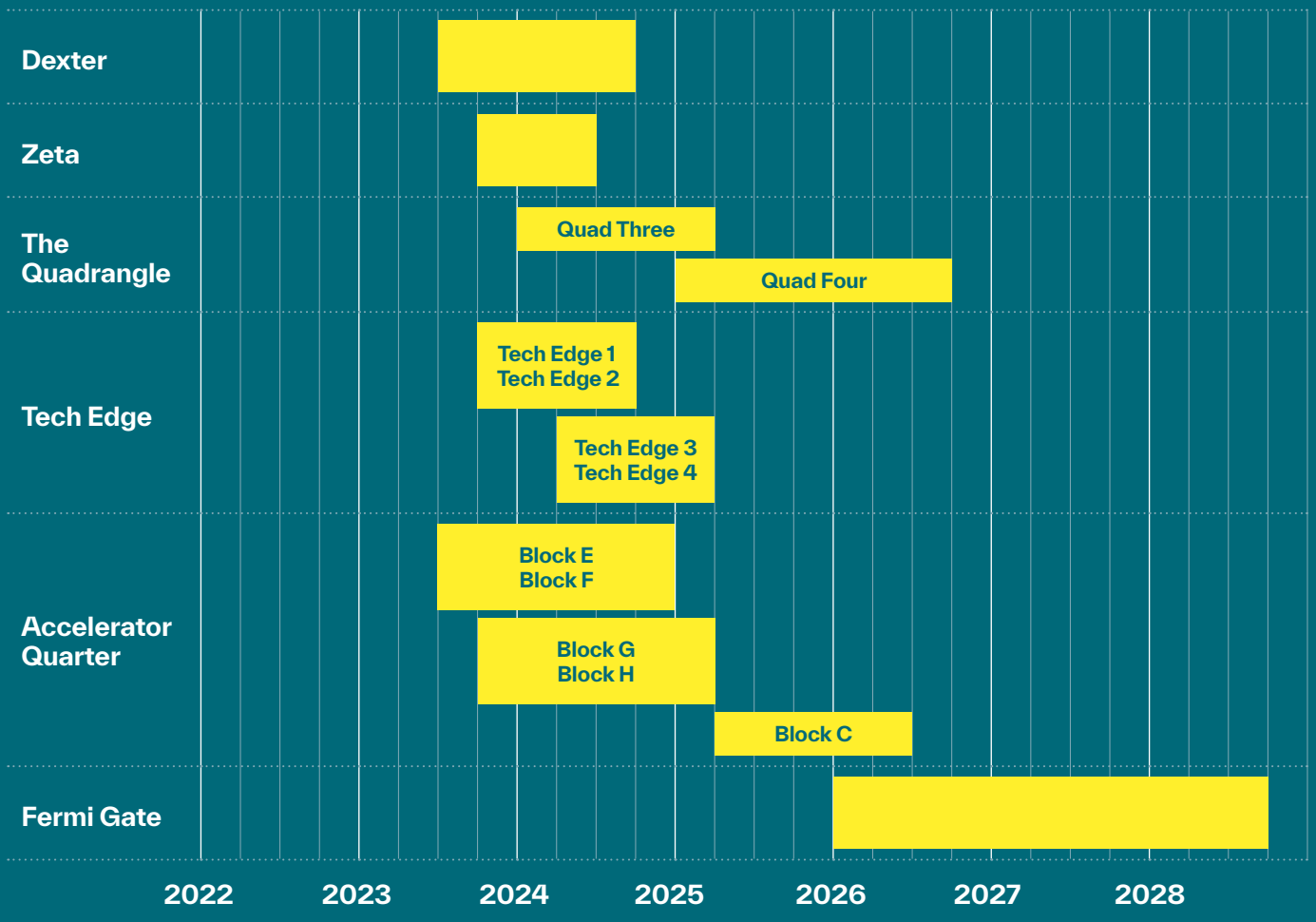
# Space to grow


Our 700-acre site is changing. Masterplanned by Hawkins and Brown we're making room for thousands more people to join us with cutting edge workspace, new labs and world-leading facilities.

We are excited at the prospect of partnering with you which will enable your business and people to thrive.

# Timeline

By the end of 2024, a further 525,000 sq ft of development is scheduled to be delivered at Harwell. This next phase of growth will provide a combination of lab, office and R&D buildings. There is flexibility in the programme to accelerate schemes, responding to occupier demand.



# BEP0

## Lab, R&D, Office, Manufacturing

Accommodation

## 3,172 - 12,513*

Sq ft available remaining space

## Available now

*includes mezzanine allowance

BEP0 delivers premium R&D accommodation enveloped by world class science establishments. It is designed for flexible configuration. Minimum clear height of 8.5m allowing for upper floor installation. Only two units currently remain available to let.

# Dexter

Three storey detached offices, adjacent to Tech Edge and Catalent, the Dexter building is on track to become Harwell's first BREEAM "Excellent" development. This fully electric building will feature Low & Zero Carbon (LZC) technologies, including energy-efficient air source heat pumps and roof-mounted solar PV panels for on-site renewable energy generation.

**Office**
Accommodation

**52,000**
Sq ft

**Q3 2024 (pre-let)**
Completion date

# Zeta

## Lab, R&D, Office

Accommodation

## 5,864 - 38,609*

Sq ft available space

## Q3 2024

Completion date

*includes mezzanine allowance

A high profile detached ‘mid-tech’ building, facing Zeus and at the entrance to Catalent. Designed to be a self-contained building of 38,609 sq ft or up to three individual lettable units from 5,862 sq ft. Clear internal space capable of upper floor installation for flexible uses.

Images for illustrative purposes

# The Quadrangle

The Quadrangle is designed to create and inspire an innovative, thriving research hub. It is located at the heart of the campus, complimented by the transformational landscape and public realm, to foster collaboration and bring together the rich international campus community.

Quad One completed in 2018, along with the neighbouring gym and cafe.

The most recent addition to this part of campus is Quad Two; Harwell's premium office development. This new speculative 39,200 sq ft Grade A office building provides some of the best space in Oxfordshire. Two lab-enabled office buildings, Quad Three and Four (c.75,000 sq ft each) will complete the quadrangle.

Quad Two roof terrace

Quad Two

# Quad Two

## Office, Dry lab
Accommodation

## Suites from 2,200 - 23,178
Sq ft available remaining space

## Available now

Quad Two is our premium Grade A office space on campus, intended to stand shoulder-to-shoulder with the best on any science campus in the world. It is within the emerging quadrangle of commercial and leisure facilities, designed to create experiences that enhance individual wellbeing and build enduringly healthy employees, the highlight being the third floor terrace with views across campus and the Ridgeway beyond. Available as a whole or floor by floor.

**Scan QR to view Quad Two film**

# Quad Three

Image for illustrative purposes

## Lab enabled office

Accommodation

## 73,000

Sq ft available space

## Q1 2025*

Completion date

*or earlier by demand

Quad Three (circa 73,000 sq ft) is scheduled to be delivered before Quad Four. Designed to be office and/or labs, for multiple or single occupation. Adaptation possible ahead of detailed design and planning.

# Quad Four

## Lab enabled office
Accommodation

## 73,000
Sq ft available space

## Q2 2026
Completion date

Quad Four (circa 73,000 sq ft) is scheduled to be delivered after the completion of Quad Three. Both buildings can be bought forward and delivered as one for a single let requirement. Adaptation possible ahead of detailed design and planning.


LA51 PJH

# Tech Edge

## Lab, R&D, Manufacturing
Accommodation

## 318,000*
Sq ft available space

## Q3 2024 onwards
Completion date

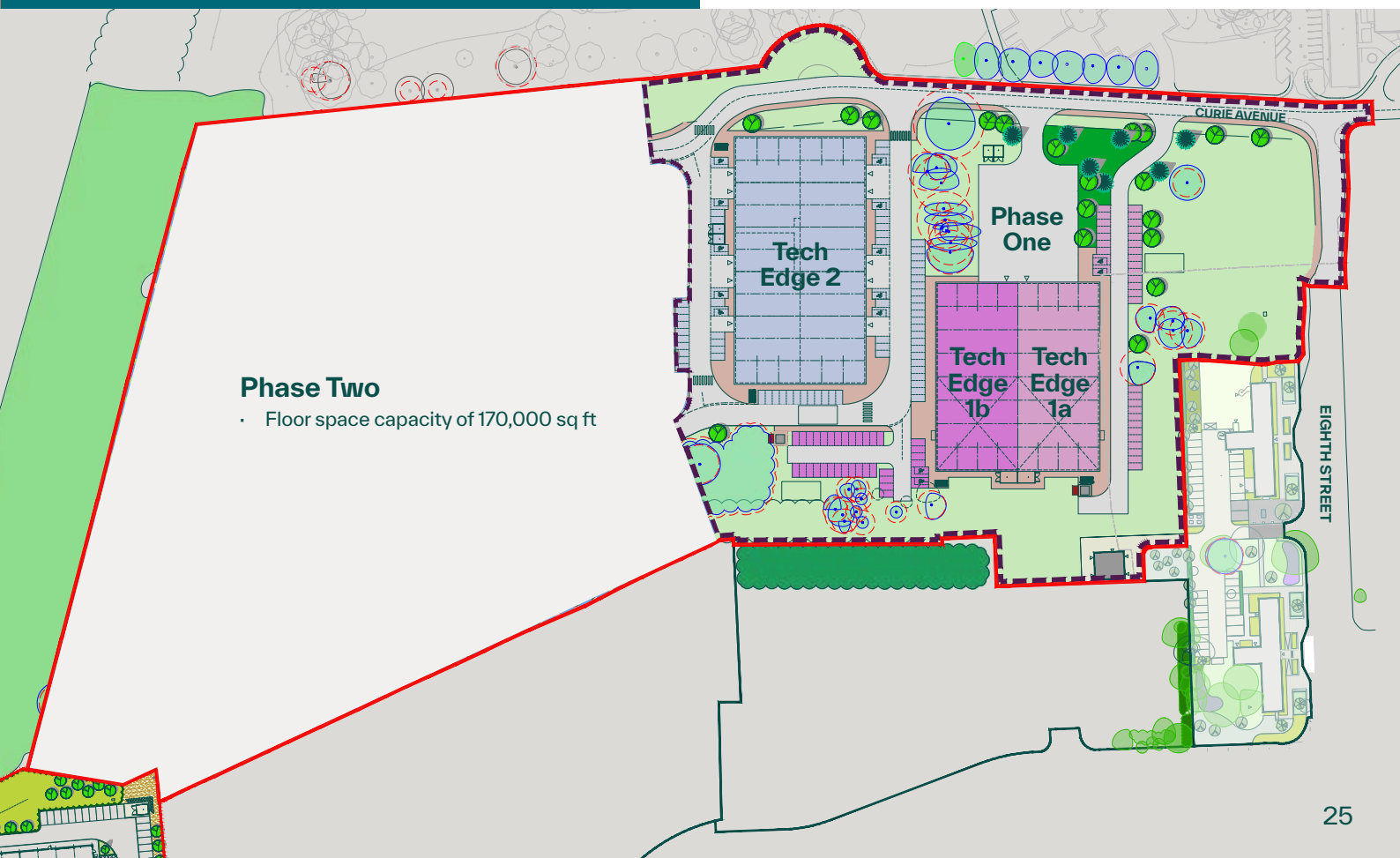
*includes mezzanine allowance

Designed to be large 'mid tech' units with 10m clear internal height for flexible fit out and upper floor installation. Adaptation possible ahead of detailed design and planning.

Phase One, Tech Edge 1 & Tech Edge 2, offer multi-unit buildings with unit sizes from 3,500 sq ft and total capacity of 148,000 sq ft over ground and first floors.

Phase Two will be able to house requirements up to 170,000 sq ft.

Image for illustrative purposes



# Accelerator Quarter


## Lab, Office
Accommodation

## 300,000
Sq ft available space

## Q4 2024 onwards
Completion date

Accelerator Quarter will be a number of lab/office buildings within a highly landscaped environment incorporating an urban design. The buildings will be connected via a central terrace, with food and beverage provision located at the core of the site. Accelerator Quarter will benefit from a designated deck car park and travel hub with public transport links. It is also planned to be next to the campus hotel, shops and food & beverage venues, and close to the planned residential quarter. An Incubator building offering small managed labs is featured in the model. Adaptation possible ahead of detailed design and planning.

Images for illustrative purposes

# Fermi Gate

Fermi Gate is of national importance; it has the capability to cater for large-scale domestic and international requirements to sit alongside the national research infrastructure and public organisations, offering a secure ‘campus within a campus’ if needed. Adaptation possible ahead of detailed design and planning.

Images for illustrative purposes

## Large-scale Labs, Manufacturing, R&D

Accommodation

## 750,000

Sq ft available space

## 2026 onwards

Completion date

# Amenities


Harwell has a thriving community and offers an incredible quality of life. We are rapidly expanding the amenities on campus to support our vision of being a 21st century science and innovation city. Harwellians can access friendly sports clubs, on-site childcare, fantastic food, independent retailers, versatile conference and event venues and, in our new residential quarter, sustainable housing.


# Contact

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