



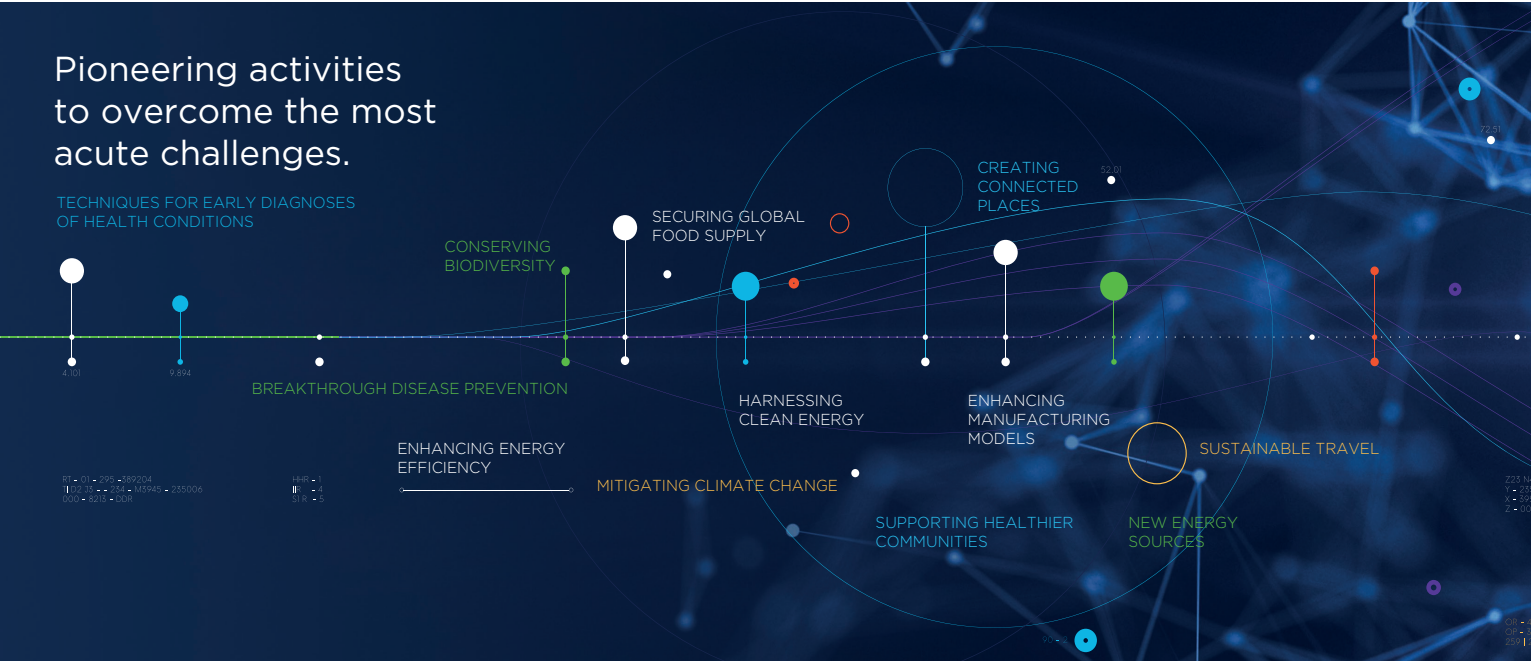
A global region of science and innovation

Oxford-Cambridge Arc

The **Oxford-Cambridge Arc** is the birthplace of ideas and innovations that have shaped the world and driven the technological change we see in our everyday lives.

In the Arc, you'll find the distinctive ingredients required for world-class research to thrive. We have a high density of national R&D institutions and globally renowned universities, world-leading talent and capabilities and, we are home to clusters of entrepreneurial enterprises, large and small, engaged in pioneering activities to actively take on the world's most pressing challenges.

11% potential contribution to UK GVA by 2050, up from 6% in 2022.



Innovation and business growth here is driven by strong public-private partnerships and a highly creative business ecosystem. As a result, the Oxford-Cambridge Arc has become one of the world's most knowledge-intensive, fastest growing economic places, creating super-clusters in fast-growth, high technology sectors that will power the UK's future development.

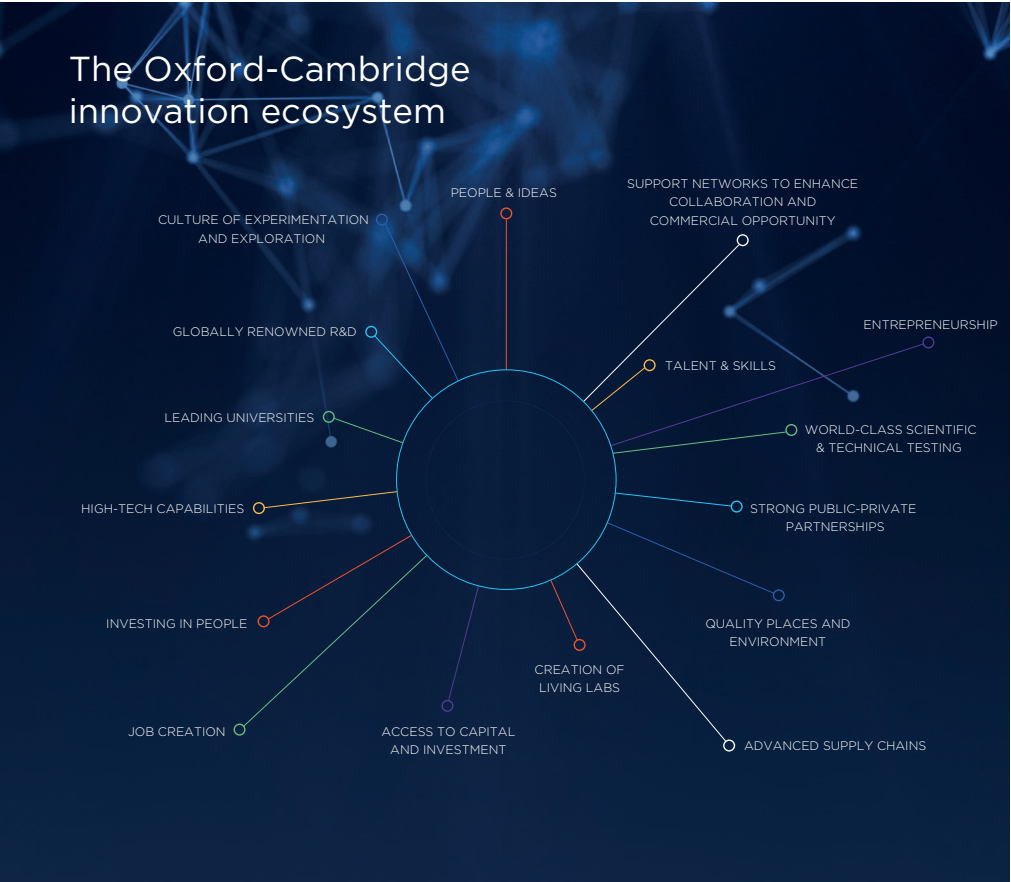
“That desire to advance societal outcomes is no better displayed than within the Oxford-Cambridge Arc. The common thread that binds together the knowledge economy we have created is a propensity to collaborate. This is deeply embedded in the culture of the region and replicated in long-term public and private sector investment, the creation of commercial partnerships, universities as educators and incubators of talent, and the cross-fertilisation within science campuses and innovation districts, which act as catalysts of the science endeavour.”

Sir John Bell, Regius Professor of Medicine, University of Oxford, February 2022.

Together, we celebrate a long history of scientific discovery and innovation breakthroughs. Today, the Oxford-Cambridge Arc is where we develop talent, stimulate innovation, and accelerate commercial opportunities to create a better world.

The future for this region is every bit as exciting as its past.

Over 20% of all university spinouts located here, with Oxford and Cambridge spin outs **valued at £9bn** (28% of UK total).



“I think globally there is an increasing recognition that there is something very special in this region. It's very hard to recreate elsewhere and so people, and ideas, enterprise and investment will come here.”

Sir Shankar Balasubramanian, Herchel Smith Professor of Medicinal Chemistry, University of Cambridge & Co-founder of Solexa. November, 2021

“The research and development capability that comes out of the universities in the Arc is so rich. The really exciting areas are artificial intelligence, machine learning, quantum and robotics. Bringing those things together is where the power comes from.”

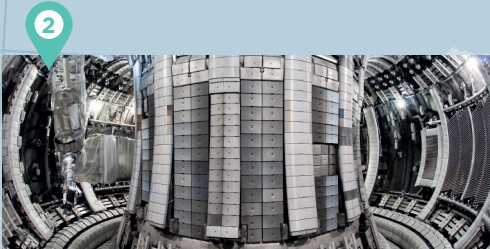
Lucy Edge, Chief Operating Officer, Satellite Applications Catapult, March 2021

What does a science and innovation superpower look like?



Oxford-AstraZeneca SARS-Cov-2 vaccine

Perhaps one of the most well-known Oxford-Cambridge, public-private partnerships of modern times. From vaccine development, early testing and clinical trials through to major large-scale production, this vaccine was deployed rapidly across the world, today vaccinating around 2billion people.



The future of fusion

In the hottest place on the planet, three major breakthroughs at the global home of fusion energy. Researchers at JET, Culham set a new global record for the amount of energy produced whilst Oxford-based start up, First Light Fusion achieved fusion reaction using its unique projectile method in a bid to achieve a more rapid trajectory towards commercial fusion and Tokamak Energy delivered the highest temperature ever achieved in a spherical tokamak and by any privately funded tokamak.



Decarbonising aviation

Advancing technologies to decarbonise civil aviation, Cranfield University is spearheading research and innovation into hydrogen and electrification in aviation. Research projects span hydrogen production, transport and storage, development of H2-fuelled and electric / hybrid electric aircraft and propulsion systems, low NOx hydrogen combustion systems and more.

Cranfield Aerospace Solutions leads the Project Fresson consortium, a technology programme to deliver a demonstrator for commercially viable emissions-free, hydrogen-fuel-cell-powered flying.

The Whittle Laboratory in Cambridge is co-leading a new Aviation Impact Accelerator to help achieve net zero flight. This project brings together experts in aerospace, economics, policy and climate science to simulate the whole aviation sector business cycle, informing decisions for innovation, investment and policy action.



Darwin tree of life

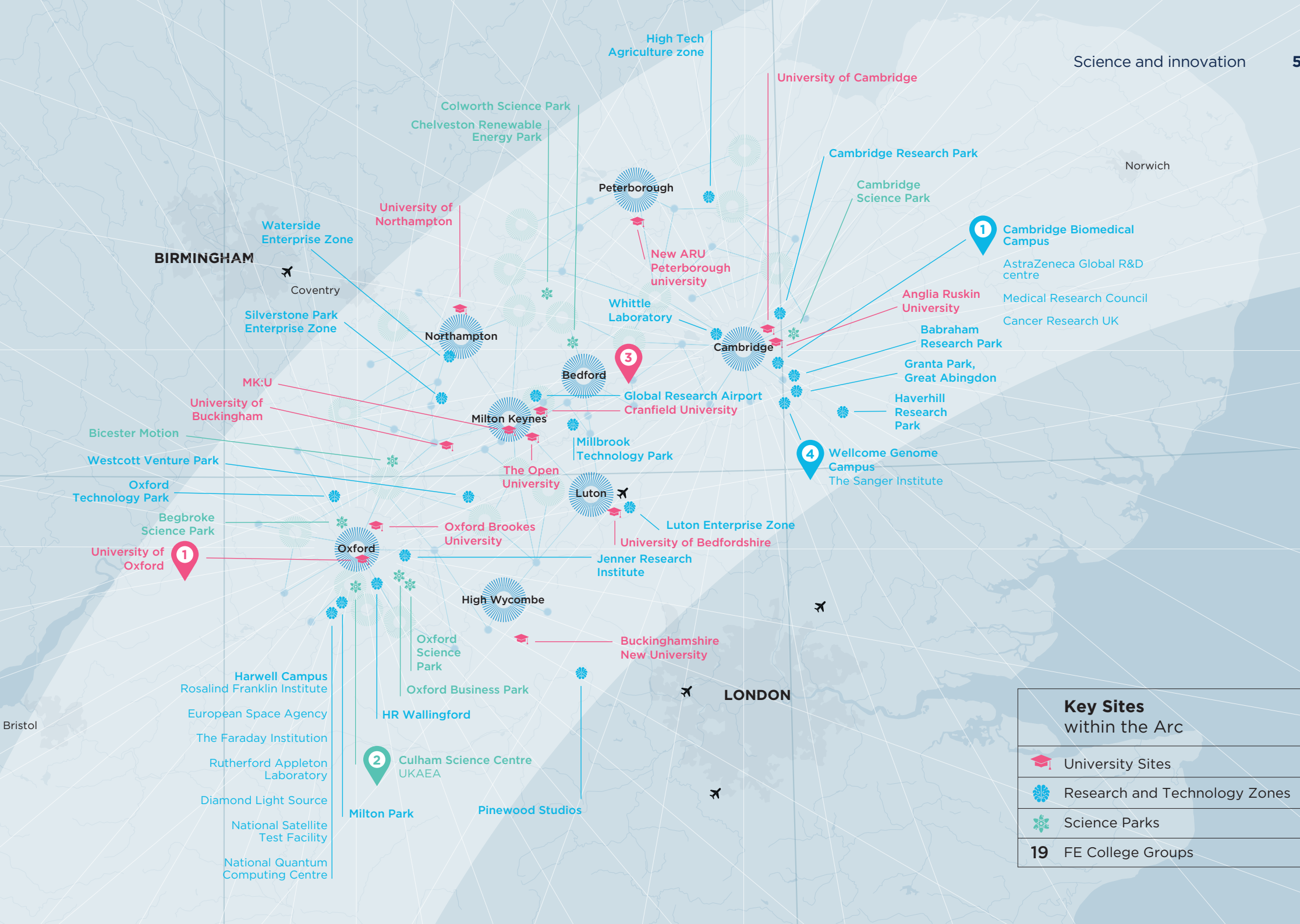
The Sanger Institute is sequencing the genomes of all 70,000 species across Britain and Ireland on land, in rivers, lakes, ponds and the sea, to use data to transform how we conserve biodiversity and promote human health.

In a major genetics study, Cambridge University Hospitals and the University of Cambridge has published analysis of the complete genetic make-up of over 12,000 NHS patients uncovering DNA patterns, or signatures, of cancer suggesting previously unknown sources of the disease.

Oxford Nanopore is revolutionising genome sequencing. The company has created a new generation of DNA/ RNA sequencing technology, capable of real-time, fully scalable and easy access analysis designed to speed up biological analyses and open up new applications to benefit society.

“It is the tip of a tremendous iceberg of scientific and technological progress that could be made even more possible if we double down on what the Oxford-Cambridge Arc does well.”

Harriet Fear MBE, Director, Cambridge&, previously the Prime Minister’s Business Ambassador for Healthcare and Life Sciences. February, 2022



Key Sites within the Arc	
	University Sites
	Research and Technology Zones
	Science Parks
	19 FE College Groups

Opportunities to invest in the frontier of cutting-edge industries

Enterprises here are at the forefront of technological development, production and deployment, at record-breaking timescales.

Work is being done to further connect people, ideas and clusters, recognising that it's the cross-fertilisation of ideas and the sharing of problems that can power up new products, services and solutions.

As new global challenges emerge, this region's science and innovation ecosystem is ideally positioned to respond.

Central and local government, Enterprise Partnerships, universities, research institutes and industry, E-NGOs and civil society groups work together here as a pan regional partnership to pursue a regional growth and investment agenda that will create better outcomes for residents, businesses and our environment for the benefit of the whole UK. To make this happen we need investment to:

- Identify and unlock potential for world leading innovation that can change everyone's lives for the better.
- support opportunities and places to maximise knowledge transfer, attract, grow and retain our globally competitive talent and promote better integration to open up benefits for all across the area.
- become a standard bearer for environmental sustainability, with considered design and innovation applied to protect, restore and enhance our environments.
- pursue quality connected and clean infrastructure and development befitting of a world class place to live and work.

Interested in investment and growth opportunities in the Arc, a global region of science and innovation?

Connect with us for:

Area information | investment opportunities | land and premises search, selection and acquisition | access to agents, professional services, recruitment and training providers, universities, colleges and public bodies | access to funding, grants and investment | corporate networking, trading partners and supply chain | one to one business support | and more...

OXLEP (Oxfordshire)
investservice@oxfordshirelep.com

SEMLEP (Milton Keynes, Bedfordshire and Northamptonshire)
invest@semlep.com

GrowthWorks (Cambridgeshire and Peterborough)
enquiries@growthworks.uk

The gateway for the space sector, Harwell Oxfordshire is home to the largest space cluster in Europe, with over 100 organisations, employing over 1400 people.

“It is time to be ambitious and the Oxford-Cambridge Arc presents us with a lifetime opportunity to be radical; to ensure that natural capital is centre stage as we plan out the Arc’s place in the world for those who live, work and study within it.”

Professor Simon Pollard OBE, Cranfield University. February 2022

Silverstone Technology Cluster, connects a concentration of over 4000 enterprises leading in technologies for future mobility and next-gen manufacturing.



“One of the amazing things about the Arc is that it connects together a number of universities, capabilities and organisations who have already got connections into the space industry, a lot of heritage which is absolutely vital for successful space missions. It means that we can move quickly, delivering space projects and world-class science projects”

Neil Bowles, Professor of planetary science, University of Oxford, March, 2021

“The Oxford to Cambridge Arc is a really a hotbed of innovation. There's lots and lots of companies in this area working on novel applications of technology into the automotive and transport industry.”

John Proctor, Technical and Special Projects Director, UTAC. November 2021

Milton Keynes testbed for AI, and home to over 10,000 software and data engineers, double the number from 5 years ago.

Cambridge life sciences cluster of over 600 companies, employing over 20,500 people.

This brochure is published by the Oxford-Cambridge Arc Leadership Group, with support from the Department for International Trade. May 2022.

Printed on paper from sustainable sources.

References:

Arc Leadership Group Economic Prospectus, October 2020

Arc Universities Group, accessed April 2022

Radical Capital, Blackstock Consulting and Bidwells, February 2022