



Case study Central Bedfordshire's High-performance Technology Industry Cluster

The ideal home for high-performance technology (HPT)

For any business investing in a new geographical area, careful consideration has to be given to a whole range of different factors – accommodation, employment levels, standard of living, connectivity and so on. For businesses involved in high-performance technology, the checklist can be even longer and more demanding - sector expertise, qualifications, access to university research and graduates, manufacturing capacity, strategic supply chain partners and more. Central Bedfordshire is helping businesses to tick all the boxes.

Central Bedfordshire offers a compelling example of the benefits to be gained from locating a business within a sectoral cluster. At the heart of the UK's high-performance technologies cluster and centrally located between Oxford and Cambridge, the area has become the go-to destination for cutting-edge innovation, scaling-up and advanced design and manufacturing.

When acclaimed American academic Michael E. Porter began popularising the concept of industry clusters (or agglomerations) back in the 1990's he was promoting all the economic reasons why like-minded businesses should come together in a geographic location, and how they combined to create a truly global competitive advantage. Central Bedfordshire faithfully mirrors this ideal.

It is already home to well-established, world-leading technology and engineering firms operating in high-growth, high-performance technology sectors including advanced aerospace, automotive and defence. It is also a haven for some of the sectors' most exciting high technology start-ups, innovative businesses that are solving future world problems through some undeniably blue sky thinking.

This natural clustering of technology businesses big and small has created an eco-system that's more than ready to grasp the opportunities presented by a range of exciting future-facing technologies – digital or otherwise. Whether it's AI, machine learning, robotics, data analytics or the Internet of Things, low carbon emission hybrid electric vehicles or drones, Central Bedfordshire will certainly play its part.

Case study
HPT Sector

A thirst for knowledge

It goes without saying that a strong concentration of experience and know-how and a sharing of knowledge and expertise, is vital to the success of such a cluster, and here Central Bedfordshire offers a unique advantage over many other areas of the UK.

With Oxford University to the west, Cambridge University to the east and Cranfield University at its very heart, Central Bedfordshire's high-performance technology cluster is supported by some of the world's leading technology- and research-focused universities. Importantly, Cranfield University is recognised as a clear leader in automotive and aerospace engineering.

Not only recognised as important primary sources of sector-specific knowledge, they are centres of continuous research and development and vital suppliers of ideas, new thinking and ultimately, future-looking, tech-savvy new recruits for local business.

What's more, these universities are actively complemented by the world's leading test and validation services provider UTAC (at the famous Millbrook Proving Ground) as well as The Bedford College Group, a nationally recognised provider of further industry-focused education, not to mention the Open University, located due South in neighbouring Milton Keynes.



Case study
HPT Sector

Samad Aerospace, Cranfield, Central Bedfordshire

Operating from Cranfield Technology Park, Samad Aerospace is a prime example of high-performance technology innovator attracted by what Central Bedfordshire has to offer. In March 2021, the company completed its first successful test flight of a half-scaled prototype of its e-Starling business aircraft.

The firm's vision is to revolutionise the way humans and goods fly around the world. With its hybrid-electric e-VTOL aircraft, it aims to create a transportation solution that is eco-friendly and less time-consuming than existing cars, planes and trains, one that is safer, more luxurious and infinitely more flexible.

We can easily collaborate with the UK's leading university for aerospace.

Dr. Seyed M. Mohseni
CEO of Samad Aerospace

Dr. Seyed M. Mohseni, CEO of Samad Aerospace said, "For the last 4 years, Samad Aerospace has chosen Cranfield, Central Bedfordshire as its home due to the rich network of academic and professional contacts in the area. Here, we can easily collaborate with the UK's leading university for aerospace, which is right on our doorstep."

"In addition, as a VTOL aircraft developer the proximity to a working airport is key to our choice to remain. There's a buzzing aerospace atmosphere here, with many interesting technology start-ups taking off and flourishing."

"Moreover, our proximity to stake holders, events and exhibitions is ideal as our business grows. Innovation is certainly the supported theme in this area, and this can be seen with the incubation centres, incentives for start-ups and so forth, which we have taken advantage of and will continue to do so."



Case study HPT Sector



Because connectivity matters

Excellent connectivity – whether relating to either transportation or digital communication networks – is a prerequisite for any technology cluster. Easy access in and out – as well as within it – are vitally important. For Central Bedfordshire’s burgeoning high-performance tech sector, transport links then represent a further significant tick in the box.

With both the M1 and the A1 routes running North-South straight through the area, its road connections to the rest of the UK really can’t be bettered. Cambridge, Oxford and London are just an hour away, with the great conurbations of the South East and the Midlands being approximately one hour away.

For international flights, the regional Luton Airport is less than 30 minutes by car, London Heathrow, an hour and London Stansted, an hour and a half. And when it comes to seaports, Felixstowe, Dover and Southampton can all be reached within a few hours.

What’s more, Central Bedfordshire’s geographical location due North of London means that it is also served by railway stations on three of the UK’s mainline rail routes. As a result, European connections by Eurostar are only 40 minutes away.

Being located centrally between Oxford and Cambridge, an area of significant economic activity, the area will also see the benefit of a major new rail link. The East West Rail project will further enhance business and research institution connectivity, connecting Oxford to Cambridge via Milton Keynes and Bedford.

Case study
HPT Sector

UTAC, Millbrook, Central Bedfordshire

Operating in Central Bedfordshire from its Millbrook proving ground, UTAC provides a complete range of market-leading vehicle and component test facilities to customers in the global automotive, transport, tyre, petrochemical and defence industries.

Its iconic proving ground offers 70km of varied test tracks including hill routes, high-speed areas and challenging off-road courses. Its professional drivers and engineers perform repeatable testing of all types of vehicles in a secure and safe environment.

Martin Hughes, Managing Director UK Operations, UTAC said, "Our location in Central Bedfordshire is ideal due to the excellent transport links. For our International customer base we're close to several major airports, we're an hour from the West Midlands (the automotive centre of the UK) and an hour from both Oxford and Cambridge."

"Millbrook is also located at the heart of the high performance technology sector, so many skilled staff are within commuting distance. Our staff also find the rural location appealing for its housing and better standard of living."



Case study
HPT Sector

Space to grow

For any high-performance technology company, finding the right kind of space it needs to grow, at the right price, can be challenging. To make the search that much easier, Central Bedfordshire offers a broad range of options to suit all stages of business evolution.

For larger-scale inward investments, the area features three different strategic development sites. These large, motorway and freight rail connected sites provide a range of different property and tenancy solutions.



The area's technology parks are a further well-proven alternative. As well as providing high-performance technology businesses with high-quality accommodation, they also provide direct access to world-class expertise plus R&D and testing facilities.

And then specifically for start-ups and SMEs, the parks at Millbrook and Cranfield also bring flexible, serviced accommodation with shared facilities. Attractive, easy in/out tenancies are the order of the day, with on-site expert mentoring a further option.

Photo credit: Cranfield University

Case study
HPT Sector

Herotech8, Cranfield, Central Bedfordshire

Herotech8 provides drone-in-a-box technology that supports round-the-clock automated drone operations. It enables industry users to automatically deploy, recover and recharge drones without the need for an on-site operator.

Comprising a drone station, mast-mounted communications module and command & control software, the solution integrates with proven drone platforms used widely across a wide range of industries, including DJI, Parrot and Yuneec. Custom solutions for bespoke platforms are also offered, along with a software developer API.

The wide variety of operations Herotech8 responds to include: emergency service, high frequency security, remote or hazardous situation, infrastructure and facility inspection and large area survey.

Edward Anastassacos, CEO of Herotech8, said, "I'm an alumnus of Cranfield University, that's what attracted me back to Cranfield. Having studied here I realised just how much the university had to offer in the way of support, mentorship and contacts. Cranfield has everything we need as an SME start-up business."

"Alongside the academic support, we have access to Cranfield's research facilities for testing and developing our drone in a box solution, on an almost daily basis. We would not get this elsewhere."

Cranfield has everything we need as an SME start-up business.

Edward Anastassacos
CEO of Herotech8.



Case study
HPT Sector

*High-technology and advanced manufacturing workforce**



29,200

Research, engineering and technology professionals.^[1]



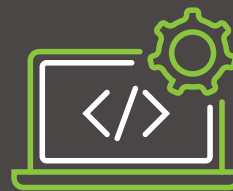
14,100

Advanced manufacturing workers.^[2]



33,000

Manufacturing workers.^[3]



14,250

Computer programming and related activities.^[4]

* Workforce data is for Central Bedfordshire's core labour catchment area, comprising Central Bedfordshire and the immediately adjacent cities of Milton Keynes, Bedford and Luton. From this area, employment locations across Central Bedfordshire can be reached within approximately 30 minutes by car. By excluding other neighbouring districts, data for this catchment area understates the actual sector labour forces that can be accessed by business located in Central Bedfordshire.

Sources:

[1] ONS 2021: SOC21 Science, Research, Engineering & Technology Professionals

[2] ONS 2021: SOC52 Skilled Metal, Electrical & Electronic Trades

[3] ONS 2019: SIC C Manufacturing (all)

[4] ONS 2019: SIC 62 Computer Programming, Consultancy and Related Activities

Case study
HPT Sector



The right workforce

Reflecting its position as one of the South of England's leading technology hubs, Central Bedfordshire brings inward investing firms a local workforce that's technically skilled and qualified in research, technology and advanced manufacturing.

Not only is the area centrally located between Oxford and Cambridge universities, it's actually within the 'research golden triangle' too, with London's Imperial, UCL and King's College making the third corner in the south. These universities attract the highest research incomes of all British universities.

In key technology and advanced manufacturing-focused skills categories, Central Bedfordshire stands out amongst regional competitor locations including Milton Keynes, Bedford, Luton and districts in Hertfordshire. The area has more than 6,000 people involved in science, research, engineering and technology, some 2,500 in programming and IT, more than 4,000 in advanced manufacturing, and a further 10,000 in general manufacturing roles.

Importantly, the average labour costs in the Central Bedfordshire area are also highly competitive for the South East, being more than 12.5% lower than in Oxford to the west and Cambridge to the east for example, bringing investors a further significant source of competitive advantage.

Case study
HPT Sector

Nissan Technical Centre Europe (NTCE), Cranfield Technology Park

NTCE is Nissan's UK centre of excellence for the design and development for all vehicles manufactured in the company's European plants. Design & development, purchasing, production engineering and quality assurance functions are all integrated on the Cranfield site.

Europe's best-selling crossover vehicle, the Qashqai was fully developed at NTCE. Manufactured at Nissan's Sunderland manufacturing plant, the car is today exported to more than 100 markets around the world. Over 900 people are employed at NTCE from over 25 different countries.

Matthew Ewing, VP Vehicle Engineering at Nissan Technical Centre Europe (NTCE), said, "The original choice of Cranfield as home to NTCE... effectively placed us at the intersection of the country's traditional automotive engineering centres and its supply chain, enabling us to forge strong relationships with a range of expert companies.

"This physical, face-to-face connectivity counted then and it still very much does today. Being located in Central Bedfordshire means we can be in London by train in 40 minutes. It's half an hour to Luton Airport, and an hour to Heathrow – if you're lucky with the traffic. Good road links mean a stronger, more responsive relationship with key suppliers, whether they're prototyping, re-engineering, researching or testing."



Case study
HPT Sector

Collins Aerospace, Leighton Buzzard, Central Bedfordshire

A part of Raytheon Technologies Corporation, Collins Aerospace is a leader in technologically advanced and intelligent solutions for the global aerospace and defence industries. With the slogan, 'We are redefining aerospace', the company solves some of the toughest technical challenges in the sector.

The business's wide-ranging expertise, capabilities and comprehensive portfolio means it operates across a complete spectrum of industry areas, including: commercial aviation, business aviation, military & defence, helicopter, space and airports.

Keith Delderfield, Managing Director of Collins Aerospace, Leighton Buzzard said, "Central Bedfordshire provides an excellent transport network, with good road links to motorways and into London, close proximity to a number of key airports and reliable train links. These links are critical to us, our customers and our supply base for the successful running of our business."

Over the years, as a business, we have formed sustainable links with schools, colleges, universities as well sponsoring local sporting groups. We place a lot of importance on our links with the local community being one of the key employers in South Bedfordshire."

"We have always found Central Bedfordshire Council incredibly reliable and helpful in aiding us to expand our business, from planning enquiries to environmental advice. It provides a very professional efficient service.



Case study
HPT Sector

Quality of life

With its historic market towns and villages and breath-taking countryside, including the Forest of Marston Vale, Greensand Ridge and Dunstable Downs, Central Bedfordshire is a beautiful place to live and achieve the perfect work-life balance.

Being one of the fastest-growing areas in the country for job growth, and with a relatively low cost of living, this affluent area is consistently ranked as one of the best places to live in the UK, and inward investment is supported by new housing developments throughout the area.

What's more, all those big city facilities are still on hand, just a 20-minute drive away in Milton Keynes. Central London can be reached by train in 32 minutes, enabling direct onward travel to mainland Europe by Eurostar.

Local council support

Central Bedfordshire Council's dedicated Business & Investment Team is available and ready to help all kinds of high-performance technology businesses to invest in the area. Its flexible and proactive approach to planning aims to make the process as business-friendly as possible.

To help facilitate inward investment, economic growth and job creation in the area the council provides a range of services:

- Location, economic and market intelligence
- Access to local supply chains and business networks
- Property searches and introductions
- Support to access business finance, grants and advice
- Access to workforce recruitment, education and training solutions.

For local support with your business relocation or expansion project in Central Bedfordshire contact the team at

becentralbedfordshire.co.uk

+44 (0)300 300 8272

info@becentralbedfordshire.co.uk



BeCentralBedfordshire