

Invest in UK R&D

Universities and transport
technology in the Midlands

Prospectus



GREAT
BRITAIN & NORTHERN IRELAND

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Forge the future of transport technology with universities in the Midlands

The Midlands is home to an internationally recognised transport technology cluster anywhere in the world. For over a century, the Midlands has grown companies and inventions that have reshaped the way the world moves.

Innovation has powered this extraordinary legacy of industrial impact; and it is innovation provided by the universities, companies and cities of the Midlands that will ensure our region continues to shape the future of global mobility.

Through their world-class facilities, research expertise, invention and talent universities across the Midlands are a global driving force in the development of transport technology.

Together, they offer a unique opportunity for international companies to invest in research translation, innovation, co-location and integration into a world-class talent pool and extensive regional supply-chain across key transport technology sectors. International businesses can also take advantage of the UK's extensive package of incentives and financial support for R&D investors.

Redefining how universities and industry work together.

Through pioneering co-location, joint research and technology demonstrators, Midlands universities are redefining how academia works in partnership with industry.

Beyond long-standing relationships with global companies like Jaguar Land Rover and Rolls-Royce; they have provided more than £500m (USD \$670 million) of support in the past decade to SMEs working in the Midlands' extensive transport technologies supply chain; and they have supported entrepreneurs developing new spin-out companies, products and concepts that will shape the future of mobility.

Over 2500 academics and researchers work in Transport-related fields across Midlands universities.

The universities of the Midlands provide the foundation for one of the world's most significant concentrations of transport technology research and translation. This spans three key sectors:

- Aerospace
- Automotive
- Rail

The Midlands hosts national facilities developed in partnership with the UK Government, universities and industry. Its cross-cutting R&D strengths include:

- Advanced manufacturing
- Digital and Artificial Intelligence
- Electrification, energy generation and storage
- Propulsion

So, if you want to...

- attract **outstanding talent** from some of the world's top engineering, technology and computer science graduates and academics to work for and with your business;
- invest in outstanding R&D-related **capital and regeneration** opportunities;
- **co-locate** your business on a university science or technology park to take advantage of the world-class transport technology science, engineering and innovation eco-system in the Midlands and access highly qualified graduates;
- undertake **joint research, product-creation, development and testing** using globally distinctive research facilities and dedicated innovation and knowledge transfer support;
- invest in **equity and patient capital** opportunities across a burgeoning spin-out and scale-up portfolio of companies emerging from our region's universities; and
- benefit from the UK's package of **generous financial support and tax incentives** for innovation, which has led to more than half of all UK-based R&D business expenditure being undertaken by foreign-owned companies...

...then come and forge the future of transport technologies with leading UK universities across the Midlands.

This prospectus has been developed by the Midlands' Universities as Drivers of Trade and Investment programme, a collaboration between the universities and growth organisations from across our region and is supported by the UK Government.

Our region

The Midlands is home to a thriving regional economy. More than 800,000 businesses are based in the region, generating 4.46 million jobs and £240 billion GVA per year. It is the second-biggest regional economy in the UK behind London, and is growing. The Midlands is home to 20 universities, and hosts more than 350,000 students and 100,000 graduates a year. The population is well-educated and young. All this contributes to a highly-skilled environment and a ready-and-accessible talent pipeline for potential projects, located in a well connected region with a high quality of life.

Universities and transport technologies in the Midlands – major R&D assets

REGION WIDE INITIATIVES

- HyDEX: Hydrogen Development and knowledge Exchange
- UK Government High Potential Opportunities:
 - CAM modelling and simulation in Oxfordshire and the Midlands
 - Net Zero transport in Coventry and Warwickshire

WOLVERHAMPTON

- Black Country Elite Centre for Manufacturing Skills (ECMS)
- University of Wolverhampton

BIRMINGHAM

- Energy Systems Catapult
- Very Light Rail National Innovation Centre
- University of Birmingham
- Birmingham City University
- The UK Quantum Technology Hub for Sensors and Metrology
- Centre for Railway Research and Education
- UK Rail Research and Innovation Network (UKRRIN)
- Aston University

WORCESTER

- University of Worcester

Key:

- University
- Advanced Manufacturing
- Automotive
- Rail
- Digital and AI
- Electrification, energy generation & storage
- Propulsion

STOKE-ON-TRENT

- Keele University
- Staffordshire University

DERBY

- High Value Manufacturing Catapult East Midlands (Nuclear AMRC)
- University of Derby
- Rail Research and Innovation Centre
- INFINITY Park Derby

Sheffield
Leeds
North East
M1 MOTORWAY (NORTH)

NOTTINGHAM

- University of Nottingham
- Nottingham Trent University
- Institute for Aerospace Technology (IAT)
- Power Electronics Machining Centre (PEMC)

LINCOLN

- University of Lincoln
- Lincoln Centre for Autonomous Systems

Harper Adams University

WOLVERHAMPTON

- Black Country Elite Centre for Manufacturing Skills (ECMS)
- University of Wolverhampton

BIRMINGHAM

- Energy Systems Catapult
- Very Light Rail National Innovation Centre
- University of Birmingham
- Birmingham City University
- The UK Quantum Technology Hub for Sensors and Metrology
- Centre for Railway Research and Education
- UK Rail Research and Innovation Network (UKRRIN)
- Aston University

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HEREFORD

COVENTRY

- MIRA Technology Park and Institute
- The Manufacturing Technology Centre
- UK Battery Industrialisation Centre
- West Midlands Gigafactory
- High Value Manufacturing Catapult (WMG, University of Warwick, HQ)
- Coventry University
- MIRA Centre for Connected & Autonomous Automotive Research
- National Transport Design Centre
- Centre for Future Transport and Cities
- University of Warwick
- Warwick Manufacturing Group (WMG)
- National Automotive Innovation Campus (NAI)
- UK Advanced Propulsion Centre (APC)
- Lotus Advanced Technology Centre

CRANFIELD

- Cranfield University
- Aerospace Integration Research Centre
- Digital Aviation Research and Technology Centre
- UK Aerospace Technology Institute HQ
- National Flying Laboratory Classroom (NFLC)
- Cranfield Global Research Airport

M1 / M6 MOTORWAY (SOUTH)
Cranfield University
Northampton
London

LEICESTER

- Satellite Applications Catapult Centre for Excellence (University of Leicester)
- De Montfort University
- University of Leicester
- Space Park Leicester

LOUGHBOROUGH

- Loughborough University
- National Centre for Combustion and Aerothermal Technology (NCCAT)
- Caterpillar Innovation and Research Centre
- Transport Safety Research Centre



Science and innovation pedigree

At the heart of the Midlands' science and innovation landscape are its world-class universities. Midlands Innovation is a partnership of eight research-intensive universities in the Midlands: Aston University, University of Birmingham, Cranfield University, Keele University, University of Leicester, Loughborough University, University of Nottingham, and University of Warwick.

The partnership leverages the research expertise of its members to address the challenges facing society, and to support the development of new technologies, products, and services. Key areas of focus include advanced manufacturing, digital innovation, energy and sustainability, and health and life sciences. The organisation collaborates with industry, government, and other partners to ensure that its research is relevant and useful.

Midlands Enterprise Universities (MEU) is a group of universities with a common mission to support economic growth and innovation in the region. These are Birmingham City University, Coventry University, De Montfort University, Nottingham Trent University, Staffordshire University, University of Derby, University of Lincoln, and University of Wolverhampton. MEU offers a wide range of programs and initiatives to support students, researchers, and entrepreneurs in the Midlands. MEU also supports collaborative research and development projects that focus on regional priorities, such as advanced manufacturing, digital innovation, and healthcare.

In addition to these leading universities, the Midlands is home to a network of renowned research centres and innovation hubs. For instance, the Manufacturing Technology Centre (MTC) in Coventry is a world-leading facility for advanced manufacturing research and development. Equipped with state-of-the-art equipment and expertise, the MTC collaborates with businesses to drive innovation, increase productivity, and support the growth of the manufacturing sector.

The Midlands is home to a number of the UK Catapult Centres, covering Energy Systems (Birmingham and Derby), Satellite Applications (Leicester), and two focused on high-value manufacturing: the MTC near Coventry, and WMG (formerly Warwick Manufacturing Group) at the University of Warwick. Catapults help turn ideas into commercial applications by addressing the gap between technology concept and commercialisation.

The Midlands' science and innovation pedigree extends beyond academia to encompass various industry sectors. Aerospace, automotive and rail industries have flourished in this region, benefiting from cutting-edge research and development activities. Jaguar Land Rover, for example, has a major presence in the Midlands and collaborates closely with universities and research institutions to drive advances in electric vehicle technology, autonomous driving, and lightweight materials. The aerospace sector in the Midlands sees companies like Rolls-Royce investing in research and development to develop more fuel-efficient and environmentally friendly aircraft engines. Bombardier has a national rail manufacturing hub in the East Midlands.



Aerial view of Birmingham.

World-leading transport technology sectors in the Midlands



Aerospace

The Midlands is home to 3% of the world's aerospace industry, as well as 7% of Europe's, and amounts to 25% of the sector in the UK – which itself hosts the second largest aerospace industry in the world. It is a global hub for aerospace technology, manufacturing, and research and development. It is also at the forefront of the UK and Europe's space efforts.

The sector has specific expertise in aero engines, complex aircraft systems and precision-engineered aircraft components, with 60% of firms making “flying parts”, and the other 40% producing equipment for design, testing, and manufacturing, as well as providing specialist services.

Midlands universities are home to more Rolls-Royce University Technology Centres than any other region in the world. The University of Nottingham, through its Institute for Aerospace Technology, hosts a portfolio of nearly £100m in aerospace-related research. The £40 million (US\$50 million) Power Electronics and Machines Centre (PEMC), also based in Nottingham, offers purpose-built laboratories that host the UK Government-funded Driving the Electric Revolution Industrialisation Centre.

Cranfield, a specialist postgraduate university with deep expertise in aerospace offers business access to its global research airport and facilities for understanding the whole environment in which

transport operates. It is also home to the Aerospace Technology Institute, which funds civil aerospace research at scale on behalf of government and other partners.

Loughborough University is home to testing and demonstrating equipment such as two aeronautical propulsion test cells for up to 8 bar high pressure nozzle experiments, a wind tunnel laboratory equipped with two subsonic tunnels and a smoke visualisation tunnel, and an autonomous systems laboratory with indoor flight test environments and more. The National Centre for Combustion and Aerothermal Technology (NNCAT) at Loughborough University is the UK's primary hub for R&D in low-emission aerospace gas turbine technologies, as well as applications within the automotive, marine propulsion and energy sectors.

The space sector is estimated to have underpinned 15% of the UK's economic activity in 2020. This is forecast to grow significantly, with more than 18,000 people already working in space technology. Space Park Leicester is a unique community where industry, academics, and students come together to drive growth in the space and space-enabled sectors. The Space Park supports the entire space value chain, from innovative upstream engineering through to the downstream capture, analysis, and application of space data.

The Midlands is home to 3% of the world's aerospace industry, 7% of Europe's, and **25% of the UK's.**

There are 52,000 people employed in aerospace in the Midlands Aerospace cluster.

The University of Nottingham, through its Institute for Aerospace Technology, hosts a portfolio of nearly **£100m in aerospace-related research.**

Rolls-Royce is a major employer in the region, **accounting for 25% of all aerospace jobs.**

There are more than 10,000 students studying automotive related courses in the Midlands,

with courses accredited by professional bodies such as the Institution of Mechanical Engineers (IMechE) and the Society of Automotive Engineers (SAE).

More than one third of British cars

are developed in the Midlands.

16 of world's 20 biggest automotive suppliers

are in the Midlands.

The region makes 40% of all cars

exported from the UK.

30% of UK automotive employment

is in the Midlands.

Automotive

There are nine volume car manufacturers, seven commercial vehicle manufacturers, three off-highway manufacturers, five motorcycle manufacturers and 16 of the world's top 20 automotive suppliers in the Midlands.

With 40% of UK car exports made in the region, Aston Martin, BMW, Jaguar Land Rover and Toyota are all driving the production of electric vehicles and battery technologies as part of the acceleration towards Net Zero transport. Confidence in the sector, and the region, can be seen clearly in the recent announcement by Jaguar Land Rover of £15bn investment over five years into their industrial footprint, vehicle programmes, autonomous, AI and digital technologies and people skills.

The universities and firms of the Midlands are at the cutting edge of the design, development and deployment of battery propulsion, and connected and autonomous systems in vehicles. There are major automotive test and development campuses at MIRA Technology Park, the University of Warwick National Automotive Innovation Campus and in the Gaydon Product Creation Centre. The all electric i-Pace, winner of European Car of the Year, was designed and developed in the Midlands.

The National Automotive Innovation Centre (NAIC) is a state-of-the-art facility that brings together more than 1,000 designers, engineers, and researchers from industry and academia to work on the next generation of automotive technologies. Located at the University of Warwick's campus

in Coventry, the NAIC is a partnership between WMG (Warwick Manufacturing Group), Jaguar Land Rover, and the Tata Motors European Technical Centre. With £180m of funding, the NAIC is equipped with a wide range of facilities. Elsewhere in the Midlands, other universities provide support such as the National Automotive Wind Tunnel, a collaboration between Cranfield University, Loughborough University and the University of Birmingham.

The Cranfield Impact Centre is a FIA approved facility with expertise in vehicle crashworthiness and occupant simulation.

Loughborough's automotive engineering course demonstrates the level of integration currently in the Midlands between the universities and industry. The course has an option for a year in industry with companies such as AMG Mercedes Petronas, McLaren, Toyota, Bentley, Ford, and Red Bull Racing. Loughborough University's Caterpillar Innovation and Research Centre features world-class facilities and expertise in the off-highway sector for engines, engine sub-systems and hybrid powertrain systems development.

Maintaining a talent pipeline is a priority for the sector. Students studying automotive and motorsport engineering degrees at Coventry University have access to industry standard research facilities, such as two full-motion Cruden F1 simulators, engine test cells, robotic milling, and a Mercedes AMG Petronas F1 wind tunnel. They are also able to work on research from companies such as Prodrive, Geely and Lotus.

Rail

The UK Government calls the Midlands a 'Rail Supercluster'. The region is home to several major railway companies, including Network Rail, East Midlands Railway, and West Midlands Trains. Great British Railways, the new public body that will oversee the vast majority of rail transport in Great Britain, has chosen Derby as the site of its new headquarters. The Midlands is also home to a significant number of railway engineering and manufacturing firms, including Bombardier in Derby, and Siemens.

The rail sector in the Midlands employs around 60,000 people and contributes more than £3.2 billion to the regional economy. It is set to grow significantly in the coming years, with the potential to add more than £1 billion to the regional economy and create more than 5,000 new jobs by 2029. HS2 – Europe's biggest infrastructure project – will help to level up the Midlands by bringing Britain's largest economic regions closer together so that more businesses can flourish.

Companies and universities in the region are at the cutting-edge of next generation rail, including VLR (Very Light Rail technology), developed by WMG at the University of Warwick and TDI International, and demonstrated at Dudley's emerging Very Light Rail and Innovation Centre. HydroFLEX – the UK's first hydrogen train – was developed at the Birmingham Centre for Railway Research and Education (BCRRE) at the University of Birmingham and Long Marston Rail Innovation Centre.

The BCRRE is the lead partner in the UK Rail Research and Innovation Network (UKRRIN) – a £92m collaboration between academia and industry, aiming to provide a step-change in innovation in the sector and accelerate new technologies and products from research into market applications globally.

The BCRRE also launched the Centre of Excellence in Rail Decarbonisation, focused on supporting industry and government to lead and develop the solutions that will deliver rail decarbonisation.

All these centres of research expertise and industrial collaboration have provided many decarbonising solutions, and they continue to do so in support of the requirement for the UK to achieve Net Zero emissions by 2050.



University of Birmingham: Railway Simulator at the Birmingham Centre for Railway Research and Education.

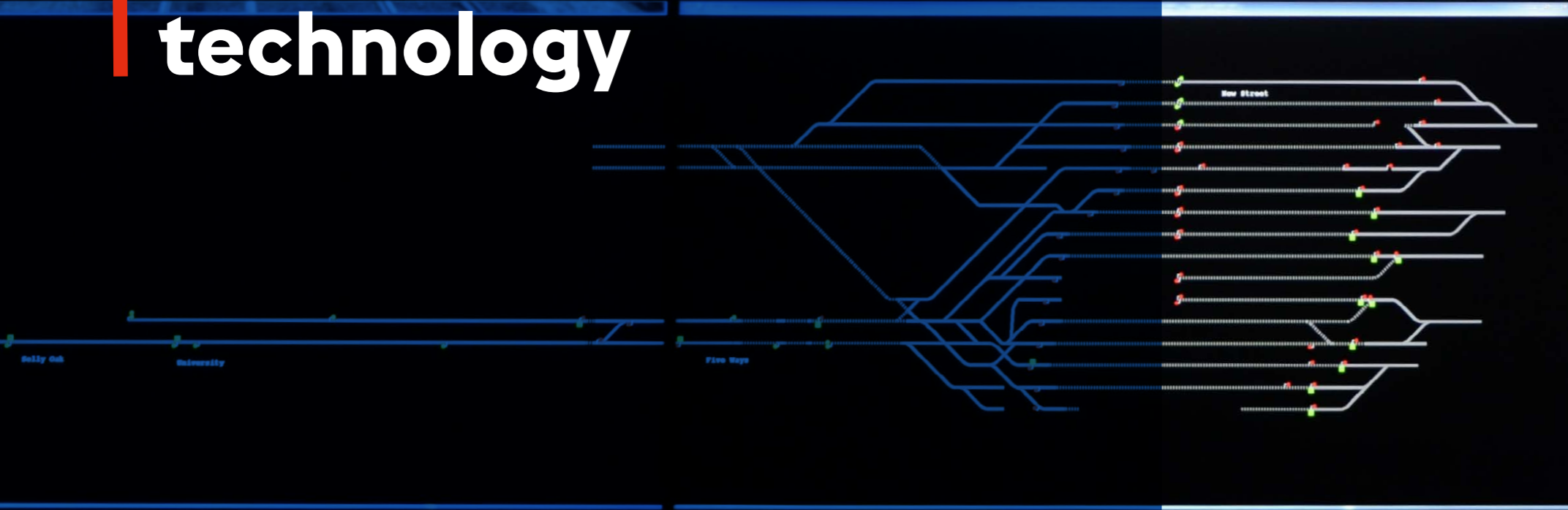
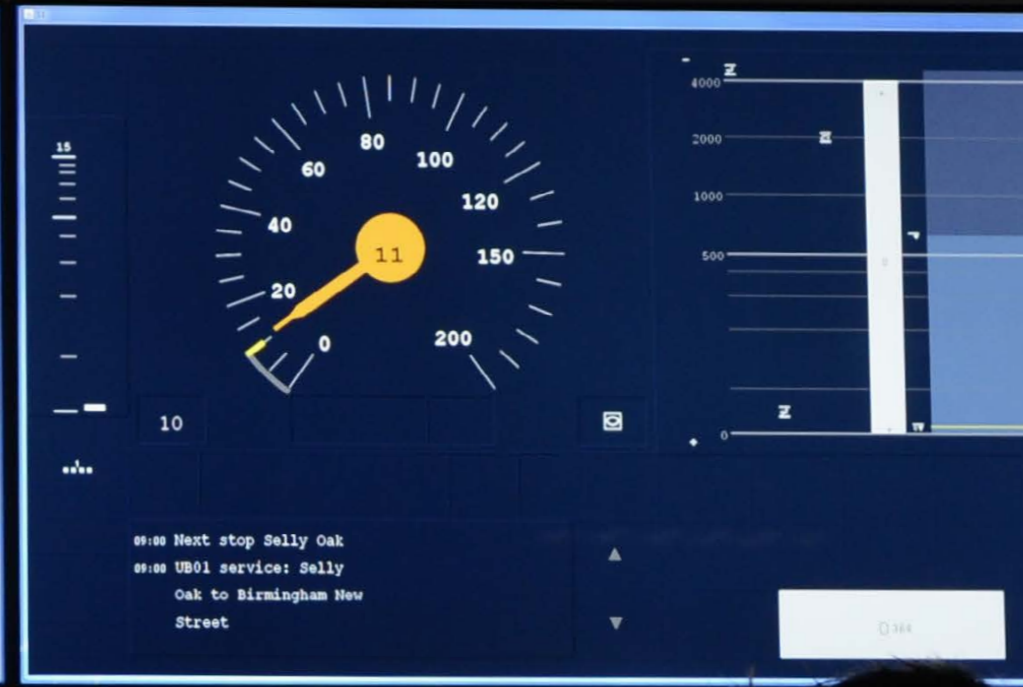
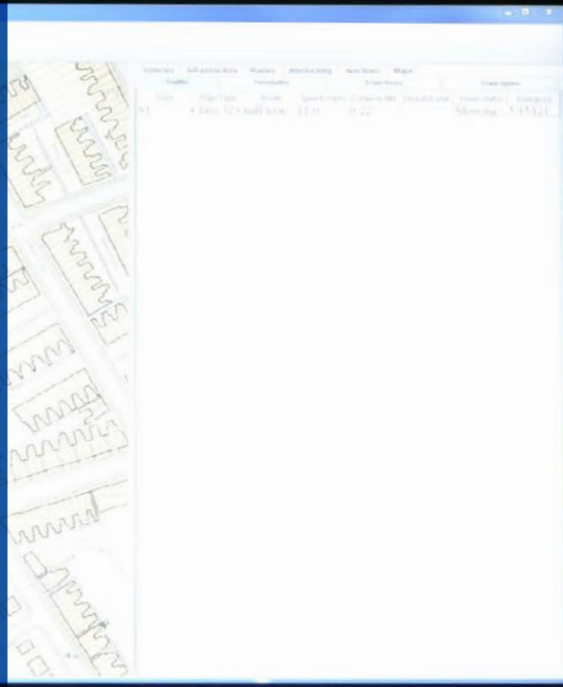
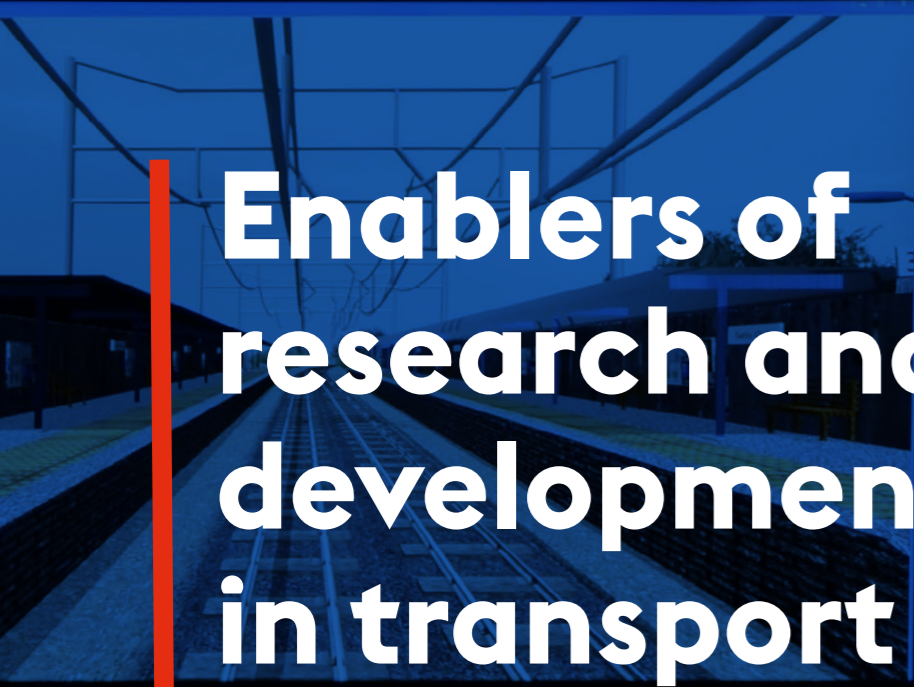
The Birmingham Centre for Railway Research and Education (BCRRE) is Europe's largest academic-based group for the rail industry, with **over 180 academics and researchers and a lead partner in the £92m UK Rail Research and Innovation Network (UKRRIN).**

Over 60,000 people are employed at **600 companies in the rail industry in the Midlands.**

The rail industry supported £43bn in economic growth in the UK in 2021.

Over 80% of rail freight traffic travels through the Midlands.

Enablers of research and development in transport technology



Advanced manufacturing

The Midlands is renowned for advanced manufacturing, building on more than a century of innovation and invention from world-beating companies across the automotive, aerospace and rail sectors. This foundation of technical knowledge brings expertise from across the globe to live and work in the Midlands, and is continuing to shape the future of travel, transport and mobility. The Midlands provides 15% of the UK's total manufacturing output, while generating £36bn in GVA.

Businesses choosing to locate in the Midlands can access world-class manufacturing clusters and supply chains, such as the Rolls-Royce aerospace cluster in the East Midlands.

WMG has a mission to reinvigorate UK manufacturing and improve its competitiveness through innovation and skills development. Its research is focused on areas including advanced manufacturing technologies, automotive engineering, energy and environment, healthcare, logistics and supply chain management, manufacturing systems and processes, materials science, safety and security.

It is helping to develop new technologies and processes, to train the next generation of engineers and managers, and to support businesses in their growth and success. WMG generated over £110m in income in 2021, seeing 1,600 students graduate from its degree courses, supported by research staff from 49 countries. WMG produced over 13,000 ventilators for the NHS during COVID.

Elsewhere, in Nottingham, the Omnifactory is a national demonstrator and testbed for smart manufacturing systems. Omnifactory pioneers the commercial application of advanced technologies to enable industrial partners to transform their manufacturing practices through machine, data, and human interaction. They support manufacturers across aerospace, space, and automotive.

The University of Birmingham and the Manufacturing Technology Centre have launched a new joint research group to lead a sustainable manufacturing revolution. The group will bring together the expertise of each institution across the R&D and product development lifecycle, and working with a range of industrial partners will establish a world-leading research group firmly focused on the decarbonisation of the sector.

The Midlands is home to
21% of all UK manufacturing.

20% of the UK manufacturing workforce works in the Midlands.

There was £36bn in GVA generated from manufacturing in the region.

WMG generated over £110m of income in 2021, and the group played a pivotal role in supporting the NHS – producing 13,000 ventilators to help those seriously ill with COVID.

Electrification, energy generation and storage

The Midlands' low carbon economy is worth £12 billion and growing. The Midlands hosts a number of research centres dedicated to driving the transition to a low carbon economy. The UK Battery Industrialisation Centre (UKBIC), located in Coventry, is the national battery manufacturing scale-up facility. UKBIC is a £130 million, 20,000m² pioneering facility, which provides the missing link between battery technology at laboratory or prototype scale, through to successful mass production. UKBIC is a key part of the Faraday Battery Challenge, a UK Government programme to fast-track the development of cost-effective, high-performance, durable, safe, low-weight and recyclable batteries.

The West Midlands Gigafactory will also create the UK's largest battery manufacturing facility in the heart of the UK automotive industry. Midlands SMEs like Accelaron are already making the world's first serviceable, upgradeable and recyclable lithium batteries.

Beyond manufacturing, the Midlands is leading the way in renewable energy production and is home to the world's biggest offshore windfarm in Lincolnshire, providing 18% of England's renewables capacity. At Keele University, the Smart Energy Networks Demonstrator (SEND) partners graduates with SMEs for shorter or longer (up to 3 years) term projects to address energy efficiency and needs within the business.

The Energy Research Accelerator (ERA) is a long-established partnership of eight universities in the Midlands Innovation group (Aston, Birmingham, Cranfield, Keele, Leicester, Loughborough, Nottingham, Warwick) and the British Geological Survey. Over 1,000 companies are working with ERA partners, undertaking R&D and commercialising products. The ERA has delivered over £110m in industrial co-investment, and catalysed £250m in follow on funding. The ERA has invested millions of pounds into state-of-the-art facilities and equipment, providing new opportunities for businesses to undertake small- or large-scale testing, product development, modelling, and work on large-scale demonstrators to prove concepts in real world environments.

Loughborough University's Centre for Renewable Energy Systems Technology (CREST) oversees the R&D of progressive renewable energy technologies and has recently received £3.6million upgrade to provide state-of-the-art analytical and characterisation capabilities.

Loughborough University's National Centre for Combustion and Aerothermal Technology (NNCAT) leads research excellence and technology deployment in low emission aero gas turbines and is actively involved with the development of technology within distributed power generation.

The UK's largest windfarm is in the East Midlands, providing **18% of UK renewables capacity.**

30% of renewable electricity generated in the Midlands **comes from wind, and 25% from solar.**

The Energy Research Accelerator has delivered over **£110m in industrial co-investment**, supporting product development and large-scale demonstrator projects.

The UK Battery Industrialisation Centre is a £130m, 20,000m² facility supporting battery manufacturing in the UK.

The connected and self-driving vehicle technologies industry is estimated to be worth **£52bn nationally by 2035.**

The West Midlands has **more AI businesses than Cambridge.**

Over 96% of businesses in the Midlands have access to superfast broadband.

The digital sector employs nearly **129,000 in the region.**

Digital and Artificial Intelligence

The Midlands is recognised as a centre of excellence in digital innovation, with the sector employing nearly 129,000 people, in 20,000 firms, and generating just over £9.5bn in GVA. Over 96% of premises in the Midlands have access to superfast broadband – facilitating the use of digital technology and Artificial Intelligence (AI) to support innovation clusters of transport technology expertise, invention and talent.

Coventry University's Centre for Future Transport and Cities is just one example of how universities are using their research to lead the way for the transport sector. It is estimated the West Midlands alone will create an additional 52,000 tech-based jobs by 2025, with digital and AI playing a key role in that. Innovate UK have offered over £10.4m in grants to 73 projects in AI and the data economy in the region since 2017/18.

Further, the Midlands hosts the UK's first multicity 5G testbed. Enabling this 5G connectivity is estimated to be worth £5 billion to the Midlands economy over the next five years and a further £15.9 billion over the subsequent five years.

The UK is a global centre for the innovation and development of connected and self-driving vehicle technologies. It is the only place worldwide with the capability to take ideas from concept to development both virtually and physically.

The Midlands is home to 3 of the 6 Testbed UK facilities. These are funded by the UK Government and private sector partners through Zenzic, who are pioneering the UK shift to connected and self-driving vehicles of the future: Midlands Future Mobility, ConVEX, and Assured CAV.

Companies in the connected and automated mobility (CAM) Testbed UK region of Oxfordshire and the Midlands are leading the move to zero emission vehicles and green public transport. CAM Testbed UK is a UK Government High Potential Opportunity, which means overseas investors are supported to harness world-class modelling, simulation and testing facilities.

Elsewhere, the University of Birmingham's UK Quantum Technology Hub for Sensors and Metrology (which is developing quantum sensors that will help drivers 'trust' their autonomous vehicles – be that a car, ship, train or plane) brings together experts in Physics and Engineering from a number of universities, including the University of Nottingham, as well the National Physical Laboratory, the Midlands-based British Geological Survey and over 70 industry partners. The Hub has over 100 projects, valued at approximately £100 million, and 17 live patent applications.



University of Nottingham: Dynamic test vehicle (train) on top of the Nottingham Geospatial Institute building.

Propulsion

Propulsion innovation in the transport sector focuses on developing advanced technologies to propel vehicles efficiently and sustainably. It encompasses a range of solutions aimed at reducing emissions, increasing energy efficiency, and improving overall performance.

The Midlands is contributing to propulsion innovation through the Advanced Propulsion Centre (APC), co-located on the University of Warwick campus, the APC works to bring academia and industry together. The APC funds research, programs and competitions - getting behind projects that can really make a difference in reducing CO₂ emissions.

Since the APC was founded in 2013, it has helped safeguard or create 55,000 jobs, facilitated over £1.3bn of investment and saved over 350 tonnes of CO₂.

The £20.1 million VIRBIUS project, which the APC funded with £10.4 million of support, will allow Jaguar Land Rover to create the next generation of technology in autonomous, connected,

electrified vehicles. The project focuses on electrifying the fleet by developing state-of-the-art electric hybrid systems and optimising new powertrains. It is conducted through a consortium including Loughborough University and the University of Warwick.

In the off-highway sector, Loughborough University is working in partnership with Perkins and Equipmake on the £11.1 million APC funded Project Coeus to develop and produce an advanced multi-fuel 'drop-in' hybrid integrated power unit.

In aerospace, Loughborough University has partnered Rolls-Royce, working alongside easyJet and the German Aerospace Centre to achieve a new world industry first for hydrogen combustion jet engines. Tests on a full annular combustor of a Pearl 700 engine running on 100% hydrogen have proven the fuel can be combusted at conditions that represent maximum take-off thrust. Much of the development took place at the National Centre for Combustion and Aerothermal Technology.

The APC, since 2013 has:

Facilitated
£1.3bn
of investment.



Supported nearly
200
individual
projects.



Engaged
over
450
organisations,
from SMEs to volume
vehicle manufacturers.



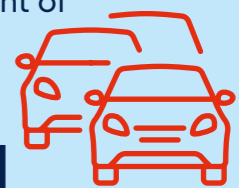
Safeguarded
55,000
jobs.



Saved over
350
million
tonnes of CO₂.



Taken the equivalent of
14.1m
cars off
the road.



There are more
EV charge points
in the Midlands, like for like, than
Brussels, Boston and Barcelona.

Over
92,000 Ultra Low
Emission Vehicles are registered
in the Midlands.

Coventry is on track to becoming
**the UK's first all-
electric bus city**
by 2025, with up to 300 zero-
emission buses.

The University of Birmingham
developed the UK's
**first hydrogen-
powered train** in
collaboration with Porterbrook.



Invest in a partnership with Midlands universities



Cranfield University: A small group of people managing air traffic on the screen in the air traffic management laboratory. ©Cranfield University.

Research translation

Universities in the Midlands have an exceptional track-record of working with the world's largest companies, helping translate fundamental research into industry-leading innovations.

Our universities have dedicated teams and institutes that provide a concierge service to companies seeking to access our expertise, technology-platforms and equipment you won't find anywhere else in the world.

We will work with your R&D divisions to support everything from product design, development, testing, joint application for UK Government funding and direct contract research.

For the transport technologies, Midlands universities are world-renowned for translational research partners, including WMG at the University of Warwick's partnership with JLR, Coventry University's partnership with UNIPART, the Universities of Nottingham,

Birmingham and Derby's partnerships with Rolls Royce, Loughborough University with Caterpillar and Cranfield's multiple partnership with aerospace and defence companies. For example, Cranfield joined the Airbus Academic Programme, and Airbus was a co-investment partner alongside Rolls-Royce in the University's Aerospace Integration Research Centre, an innovative facility where universities and companies can demonstrate, validate and research up to high technology readiness levels (6-7).

For more than 50 years, Loughborough University's partnership with Rolls-Royce has provided advances in understanding and design capability in combustion aerodynamics technology.

The University of Warwick and the University of Nottingham are both in the **Top 5 recipients of the £885m of Innovate UK Funding allocated across the UK in the last 10 years.**

Innovation

Midlands universities have been supporting the innovation eco-system of their local and regional economies for decades. If your business is looking to access innovation support chains, our dedicated support programmes, funding and networks can help you do this. Through co-funded Government schemes like Knowledge Transfer Partnerships (KTPs), which is one of the most successful, long-running innovation schemes anywhere in the world, we help business of all sizes to innovate using the knowledge and expertise of UK universities.

Case study

Aerospace Unlocking Potential (Aerospace UP) is a £20 million three-year project supporting the aerospace SME supply chain in the Midlands. It provides free access to expert support, events and workshops covering a range of subjects across business and aerospace, as well as grants of up to £100,000 to support innovation and business growth. The Delivery Team at Aerospace UP can create fully tailored support packages to address specific business needs. The team of experts are drawn from the University of Nottingham and the Midlands Aerospace Alliance.

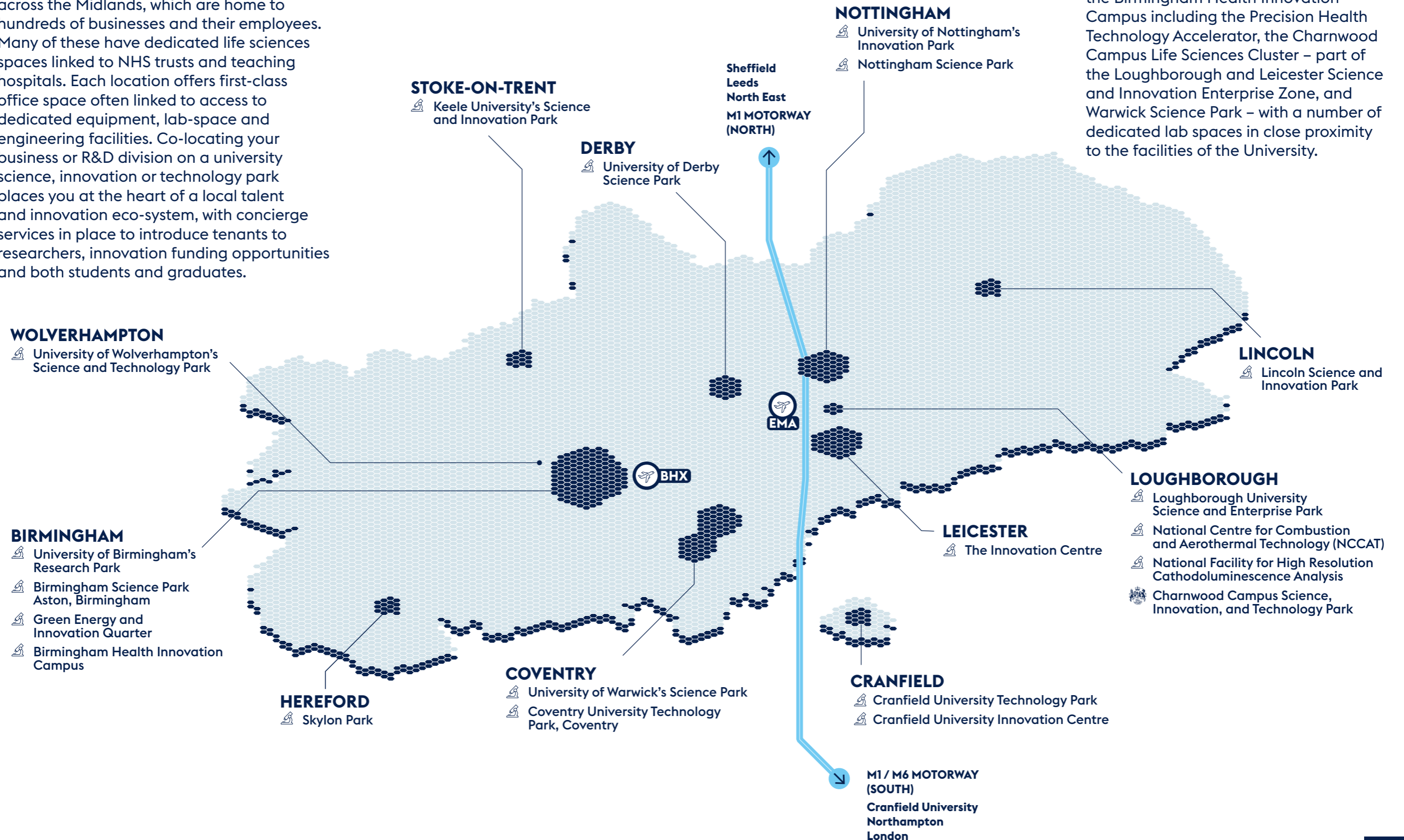
Case study

Aston University entered into a three year knowledge transfer partnership with Aurrigo, a division of the Richmond Design and Marketing Group (RDM) through the College of Engineering and Physical Sciences. Led by Aston's Computer Science department, the KTP's purpose is to develop and implement a sophisticated machine vision solution for autonomous vehicles in the Low-Speed Autonomous Transport Systems (L-SATS) sector. The project puts forward the development of intelligent systems with perception and autonomous decision capabilities in order to navigate the presence of static and dynamic obstacles while following higher level directions. Further benefits of the KTP will include higher levels of safety in operating autonomous vehicles, delivery of L-SATS into mixed environments, and low cost alternatives to high-cost detection systems.

Co-location

There are numerous university-linked science, innovation and technology parks across the Midlands, which are home to hundreds of businesses and their employees. Many of these have dedicated life sciences spaces linked to NHS trusts and teaching hospitals. Each location offers first-class office space often linked to access to dedicated equipment, lab-space and engineering facilities. Co-locating your business or R&D division on a university science, innovation or technology park places you at the heart of a local talent and innovation eco-system, with concierge services in place to introduce tenants to researchers, innovation funding opportunities and both students and graduates.

The Midlands also offers a number of co-location opportunities closely aligned to life sciences. This includes Pioneer Group in Nottingham, multiple sites within the Edgbaston Medical Quarter in Birmingham, the Birmingham Health Innovation Campus including the Precision Health Technology Accelerator, the Charnwood Campus Life Sciences Cluster – part of the Loughborough and Leicester Science and Innovation Enterprise Zone, and Warwick Science Park – with a number of dedicated lab spaces in close proximity to the facilities of the University.



Regeneration and integration

Universities across the Midlands work in partnership with the UK and Local Government to help drive economic growth through innovation and inward investment. Through a range of public-private partnerships, universities are involved in over 20 major economic development opportunities identified by the Midlands Investment Portfolio, worth over £10bn in Gross Development Value. In the West Midlands, universities work with the Combined Authority and Growth Company to work on a range of projects as a part of one of only three UK Innovation Accelerators.

Through three of the Department for Business and Trade's High Potential Opportunities programme, Midlands universities have dedicated inward investment concierge support for transport technology clusters. These are Net Zero transport in Coventry and Warwickshire, CAM Modelling and Simulation in

Oxfordshire and the Midlands and Space Technologies in Leicester.

Businesses looking to integrate into the transport technologies supply can take advantage of the interconnections, networks and eco-system of arguably the greatest transport technology cluster in the world. Across the Midlands, universities host and work in close partnership with transport technology sector networks and business membership organisations such as the Midlands Aerospace Alliance, the Rail Forum Midlands and the Midlands Space Cluster. The universities also work extensively with each other, with an estimated 2,500 academics currently working on transport technology-related research.

Our commitment is that if our universities can't help, we will introduce you to someone who can.

Talent

Home to 20 universities, the Midlands hosts over 350,000 students and 100,000 graduates a year.

Our universities will work in partnership with local economic growth organisations to develop tailored skills and training package – from degree apprenticeships,

to dedicated training and skills programme, to industry-funded PhDs – to support the growth of future industries and your business.

Case study

The WMG Skills Centre has been created to deliver expert-led, flexible and cutting-edge short courses designed for groups and individuals who will shape the future of business and industry.

The University of Derby leads the Nuclear Skills Academy in partnership with Rolls Royce. It is the first of its kind and aims to sustain nuclear capability within the UK's submarines programme by creating a dedicated pipeline of apprentice talent at the start of their careers.

Case study

The University of Derby, Loughborough University, Derby College, and Loughborough College are working together on the £13 million East Midlands Institute of Technology to create a highly advanced workforce ready to lead Industry 4.0, with a focus on critical engineering, manufacturing, and digital skills. Specialist skills programmes will include engineering and manufacturing technologies; information and communication technology; science, mathematics, and construction; and planning and the built environment.

The Institute will work closely with global firms leading in the transport sector like Rolls Royce and Toyota, as well as others like Uniper, Fujitsu, Alstom, National Grid ESO, and Bloc Digital.



Brilliant ideas | Successful businesses | Global impact

Midlands Mindforge - £250m patient capital fund combining the spinout portfolios of eight leading UK universities

Midlands Mindforge is an ambitious, patient capital investment company aiming to transform ground-breaking science and technology into successful businesses with the potential to positively impact our world and accelerate the commercialisation of research from our partner universities - Aston, Birmingham, Cranfield, Keele, Leicester, Loughborough, Nottingham, and Warwick.

By providing capital and company-building skills to university spinouts and early-stage IP rich businesses in the Midlands, we will build the foundations of a new technology eco-system in the region and create companies that can drive economic growth whilst delivering real-world impact.

Midlands Mindforge is an independent company that aims to raise up to £250m from strategic corporate partners, institutional investors and qualifying individuals.

Mindforge will “invest with impact” to found and scale transformational science backed companies in sectors such as Clean Technologies, AI and Computational Science, Life Sciences and Health Tech, to create highly skilled jobs and support the UK’s ambition to become a science and technology superpower.

enquiries@midlandsmindforg

Directory of key transport technology R&D assets across the Midlands



Aerospace

The Midlands has a number of world class research facilities that businesses can collaborate with - all dedicated to helping the aerospace sector in the Midlands remain at the forefront of technology.

Key examples of research assets include: the Aerospace Integration Centre, and the Digital Aviation Research and Technology Centre at Cranfield University; and, the Institute for Aerospace Technology at Nottingham University.

For businesses in the space sector, co-locating at Space Park Leicester offers access to industry leading research facilities.

Finally, the Midlands Aerospace Alliance provides opportunities for businesses to share knowledge and expertise, access the aerospace supply chain, and network with other aerospace innovators.

Investor support

The Aerospace Technology Institute works in partnership with the Department for Business and Trade (DBT) and Innovate UK to offer funding to accelerate innovation in UK aerospace. The ATI funds projects aligned with the UK aerospace technology strategy, Destination Zero. The strategy prioritises zero-carbon emission aircraft technologies, ultra-efficient aircraft technologies and cross-cutting enablers.

Over the past nine years, more than £1.8bn has been invested through the ATI Programme in projects across the UK, including ultra-efficient engines, fuel cell powertrains, advanced manufacturing and next generation wings.

An investment opportunity: Jet Zero at the University of Nottingham

The £40 million (US\$50 million) Power Electronics and Machines Centre (PEMC) offers purpose-built laboratories for the Power Electronics, Machines and Control research group – the largest such group of researchers in the world. It hosts the UK Government-funded Driving the Electric Revolution Industrialisation Centre – Midlands (DER Midlands Industrial

Centre) which is developing technology and manufacturing processes for advanced electrical machines and drives.

The building also houses the 20MW UK Electrification of Aerospace Propulsion Facility (UKEAPF) which will offer large-scale industry testing, the likes of which no other research institute in the world can offer.

By March 2024, the University of Nottingham will have aligned £470 million worth of industrial work with the PEMC facility, and with the support of partners its ambition is to make the East Midlands the world's foremost location for low-carbon aerospace innovation.

Global Research Airport at Cranfield University

Cranfield University's own airport offers a unique environment for transformational research in the aerospace sector.

As one of the few universities in the world with its own airport, Cranfield is at the forefront of aerospace technology, working to address the challenges of digital aviation and rethink the airports, airlines, airspace management and aircraft of the future.

Located in Bedfordshire, Cranfield works closely with business, industry, and governments across the world. From the development of Volante Vision Concept with Aston Martin and Rolls-Royce to the £67 million Digital Aviation Research and Technology Centre, Cranfield offers teams of experts from a range of skill sets, often in collaboration with other universities and consultants to meet any aerospace challenges that a business can face.

Research assets

University based

Aerospace Integration Research Centre (AIRC)

- Location: Cranfield University, in Bedfordshire
- Key features: The AIRC fosters collaboration between industry and academia and provides capabilities comparable with the leading aerospace facilities across Europe and the world. Capabilities comparable with the leading aerospace facilities across Europe and the world. Focus on integration, where new aerospace technologies are rapidly developed and tested for current and future aircraft concepts.
- Opportunity: Locate at Cranfield University Technology Park and access the expertise of the Centre's researchers, the global research airport, and the National Flying Laboratory Centre.
- Contact: +44 (0) 1234 758238

Centre of Aeronautics

- Location: Cranfield University, in Bedfordshire
- Key features: Wind tunnels, including for general purpose and atmospheric boundary layer conditions. Laboratories for indoor autonomous flying vehicles and a fully instrumented flying aircraft. Flight simulator. One of the world's largest centres for postgraduate education and research in aircraft design, aerodynamics, advanced modelling and simulation tools and methods.
- Opportunity: Get support on aerospace design, acquisition and operations, and work with a team capable of responding quickly to design requirements, providing solutions in the form of hardware and flying demonstrators.
- Contact: +44 (0) 1234 758386

Digital Aviation Research and Technology Centre

- Location: Cranfield University, in Bedfordshire
- Key features: £35 million flagship facility for digital research and technology. Equipped with the latest cutting-edge technology. Researchers investigate ways of integrating new technologies to reduce the time from innovation to application.
- Opportunity: Develop new digital technologies and gain access to Cranfield's onsite airport and its pool of specialist researchers.
- Contact: dartec@cranfield.ac.uk

National Centre for Combustion and Aerothermal Technology

- Location: Loughborough University Science and Enterprise Park
- Key features: Focus on the future of low emission aerospace combustion systems that will reduce the environmental impact of aircraft. Lead project partner is Rolls Royce. Will train future aerospace engineers as well as conduct critical research.
- Opportunity: Access the Centre's new laboratory, technology, and office space, and work closely with researchers.
- Contact: nccat@lboro.ac.uk

UK Aerospace Technology Institute HQ

- Location: Cranfield University, in Bedfordshire
- Key features: Advisory network from industry, academia, research organisations, and government. 343 projects in the portfolio with a focus on reaching Net Zero by 2050. Expertise in aerospace technology from former industry leaders.
- Opportunity: Unlock funding for aerospace projects and take advantage of industry tools such as market mapping.
- Contact: info@ati.org.uk

Space Park Leicester

- Location: University of Leicester
- Key features: Research and development centre for the space sector. Equipped with state-of-the-art laboratory space and research facilities for industry and academia to collaborate and develop new technologies and products.
- Opportunity: Co-locate at the Space Park to unlock funding, utilise state of the art facilities, collaborate on research projects, and access world leading facilities in the space sector.
- Contact: innovate@space-park.co.uk

Research assets

Catapults and other research collaboration opportunities

AirOne Urban-Air Port

- Location: Coventry
- Key features: World's first fully operational airport for drones and electric vertical take-off and landing aircraft (eVTOL). Demonstrator for purpose-built ground infrastructure and advanced air mobility (AAM).
- Opportunity: Partner with Urban-Air Port to design, develop, and manufacture innovative infrastructure for sustainable urban air transport.
- Contact: airtime@urbanairport.com

Satellite Applications Catapult Centre for Excellence

- Location: University of Leicester
- Key features: Worked with almost 100 companies and over 25 universities on over 140 collaborative projects. World class facilities and programmes. Unique Space Enterprise Community connecting space industry actors.
- Opportunity: Work with the catapult to connect with other businesses and with academics to grow the industry and take advantage of world leading equipment and research.
- Contact: marketing@sa.catapult.org.uk



Cluster organisations

Midlands Aerospace Alliance

- Location: Across the Midlands
- Key features: Collaboration between industry and academia to promote the aerospace industry in the Midlands region. Aims to attract investment and create jobs in the aerospace sector. Provides a platform for businesses to share knowledge and expertise.
- Opportunity: Partner with the Alliance to access the Midlands aerospace supply chain and network with other aerospace innovators.
- Contact: info@midlandsaerospace.org.uk



Automotive

Businesses can work with a range of research and development facilities, which can help them translate their research, innovate their product, or co-locate to access research facilities, and a skilled community of experts. Companies could choose to invest in the Net Zero transport investment opportunity in Coventry and Warwickshire, test their vehicles at one of National Wind Tunnel test centres, or develop new manufacturing processes with experts at the National Automotive Innovation Centre.

Investor support

The Automotive Transformation Fund (ATF) is a funding programme created to support large-scale industrialisation. Up to £850m of funding will be invested in developing a high-value end-to-end electrified automotive supply chain in the UK. The programme supports strategically important capital and R&D investments in the UK and is initially focusing on supporting companies involved in:

- Batteries including cells (gigafactories)
- Electric machines and drives
- Power electronics
- Fuel cells



University of Warwick: The National Automotive Innovation Centre.

The National Automotive Innovation Centre

The £180m National Automotive Innovation Centre, at Warwick University, in Coventry, is the single largest automotive research centre in Europe – a partnership between WMG, Jaguar Land Rover, and the Tata Motors European Technical Centre. There are over 1,000 designers, engineers and researchers at the Centre,

working on a range of future vehicle and mobility solution projects, alongside SMEs, large manufacturers, and governments.

Elsewhere, on the Warwick University Wellesbourne Campus, is the Lotus Advanced Technology Centre. There are 130 highly qualified engineers co-located on site, focused on developing new technologies for the automotive industry, such as lightweight materials, new manufacturing processes, and new powertrains.

An Investment Opportunity - Net Zero transport in Coventry and Warwickshire

Green transport is driving the UK towards Net Zero, and Coventry and Warwickshire offer an ecosystem for developing and deploying Net Zero transport technologies.

Companies seeking to locate in Coventry and Warwickshire can tap into first-class research universities with strong links to industry, a leading cluster of public and private

R&D assets, and opportunities to connect with a robust supply chain of transport technology businesses.

Coventry and Warwickshire is a global centre of future mobility R&D in many sectors, including aerospace, automotive, rail, marine propulsion and last mile delivery. This has given the region key capabilities and experience across:

- light-weighting
- battery technology
- hydrogen
- connected and automated mobility (CAM) technologies

Local and national government support

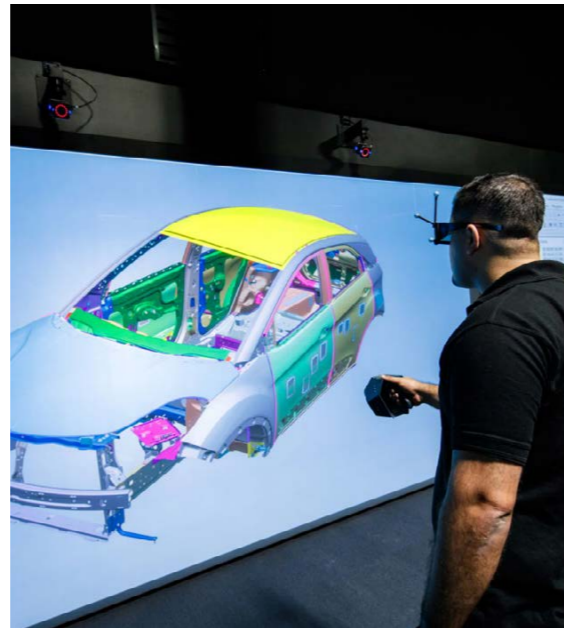
Local partners in Coventry and Warwickshire offer support with skills, recruitment and investment in capital expenditure and green technologies. The Advanced Propulsion Centre, and the Automotive Transformation Fund also offer funding support for more capital-intensive projects.

Research assets

University based

National Automotive Innovation Centre

- Location: University of Warwick
- Key features: £180 million research and development centre for the automotive industry. Equipped with the latest cutting-edge technology. Researchers work on a range of projects, including new materials, new manufacturing processes, and new vehicle designs.
- Opportunity: Partner with the biggest automotive research centre in Europe to join with designers, researchers, industry to collaborate on research projects.
- Contact: naicenquiries@warwick.ac.uk



University of Warwick: the National Automotive Innovation Centre

Catapults and other research collaboration opportunities

Advanced Product Creation Centre

- Location: Gaydon, in Warwickshire
- Key features: 13,000 skilled engineers and designers with industry experience. One of the world's largest automotive and creation centres. 4 million m² facility with innovative workspace, engineering facilities and offices.
- Opportunity: Partner with Jaguar Land Rover on their mission to accomplish Destination Zero.
- Contact: jchesney@jaguarlandrover.com

MIRA Centre for Connected & Autonomous Automotive Research

- Location: MIRA Technology Park, Nuneaton
- Key features: Collaboration between Coventry University researchers and Horiba MIRA engineers. Researchers accelerate the development of Connected Autonomous Vehicles: vehicle connectivity, automotive cybersecurity, traffic simulation and modelling, human factors and design.
- Opportunity: Simulate and test technology, and access a pipeline of talent specialised in Connected Autonomous Vehicles.
- Contact: +44 (0) 24 7635 5000

National Automotive Wind Tunnel

- Location: Cranfield University, University of Birmingham, and Loughborough University
- Key features: 22 wind tunnels across the UK, with five located in the Midlands, able to cater to a variety of conditions and needs, supported by over £13.3m of government investment.
- Opportunity: Test automotive equipment in a wind tunnel, including for hypersonic and specialist testing.
- Contact: admin@nwtf.ac.uk

Caterpillar Innovation and Research Centre

- Location: Loughborough University
- Key features: World-class facilities and expertise in the off-highway sector for engines, engine sub-systems and hybrid powertrain systems development.
- Opportunity: Conduct and access research discovering and developing engineering processes and components.
- Contact: www.lboro.ac.uk/cat-irc

Rail

Home to over 600 businesses, the rail sector in the Midlands offers a wide range of opportunities for investors to grow their business. Manufacturing hubs, such as those connected to Bombardier in the East Midlands, allow businesses to access extensive supply chains, while the Birmingham Centre for Railway Research is driving internationally recognised innovation in the sector. This is all underpinned by a community of researchers, and a ‘supercluster’ of businesses seeking to develop, showcase and commercialise new technologies.

Investor support

The UK Rail Research and Innovation Network (UKRRIN) has three established hubs across the UK, with each hub having a base in the Midlands:

- Digital Systems – University of Birmingham.
- Rolling Stock – Loughborough University and the University of Nottingham.
- Infrastructure - Loughborough University and the University of Nottingham.

Each hub offers a range of services to help investors seeking to move to the UK:

- Funding - securing additional funding by linking those who need support with those who can help.
- Access to expertise – facilitating access to capabilities, expertise and establishing connections to suppliers, rail companies, academic institutions and entrepreneurs.
- Route to market - advice on how to develop and commercialise products in the rail sector, including testing, commercial business cases, and IP considerations.
- Capability mapping - a map of facilities and capabilities within the centres and the wider network relevant to the rail industry.

Birmingham Centre for Railway Research and Education

The Birmingham Centre for Railway Research and Education (BCRRE) is Europe’s largest academic-based group that provides world-class research, education, and innovation to the global rail industry, with over 180 researchers and 57 live projects. The BCRRE demonstrated the UK’s first Hydrogen Train at COP26. The train is now ready to be commercialised.

BCRRE is also the lead academic partner in the £92m UK Rail Research and Innovation Network (UKRRIN), a collaboration between academic centres of excellence and the rail industry. UKRRIN is revolutionising innovation in the rail industry by bringing together academia with industrial partners from all over the supply chain. Industry members of UKRRIN can: access world-class research capabilities and facilities; understand where key rail relevant research capabilities and facilities are in the UK; and, develop opportunities to showcase new technology.



Birmingham Centre for Railway Research and Education.

Research assets

University based

Birmingham Centre for Railway Research and Education

- Location: University of Birmingham
- Key features: Largest railway research in Europe. Equipped with Boundary Layer Wind Tunnel, Environment for Academic Research, Transient Railway Aerodynamics Investigation Rig, Simulation labs, Pantograph rig, Wheelset kit, Robot arm, Battery cyler, Downburst generator, Geotechnical labs, Dynamometer. Lead for the Centre of Excellence in Digital Systems and home to the Centre of Excellence in Rail Decarbonisation. Researchers work closely with industry taking ideas from concept through to market delivery as demonstrated by HydroFLEX – the UK's first mainline approved hydrogen train.
- Opportunity: Offer novel and innovative approach to R&D, industrial collaboration from SMEs to OEMs, international reach and policy influence.
- Contact: <https://www.birmingham.ac.uk/research/railway/index.aspx>



University of Birmingham: School of Engineering.

Catapults and other research collaboration opportunities

Long Marston Rail Innovation Centre

- Location: Long Marston, Warwickshire
- Key features: 135-acre site with extensive infrastructure and facilities to undertake research. Development of future rail projects such as HydroFLEX, the UK's first hydrogen ready passenger train. Industry training and recruitment assistance on site.
- Opportunity: Work with the Centre to be on the cutting edge of rail technology and access support from testing to training.
- Contact: enquiries@porterbrook.co.uk

Very Light Rail National Innovation Centre (VLRNIC)

- Location: Dudley (research centre), and Coventry (location of intended trailblazer project)
- Key features: £20 million research project to develop a new type of Very Light Rail vehicle. The Very Light Rail National Innovation Centre will allow for testing and development of Coventry Very Light Rail vehicles in the West Midlands. This includes a test track and workshop space to support research and development. The vehicle is designed to be more energy-efficient and environmentally friendly than traditional rail vehicles. The project is expected to create new jobs in the rail sector.
- Opportunity: Partner with the project to collaborate on the world's first Very Light Rail system, built with new materials and methods to meet the challenges facing public transport systems and the world.
- Contact: coventryvlr@coventry.gov.uk
- Contact: info@bcimo.co.uk

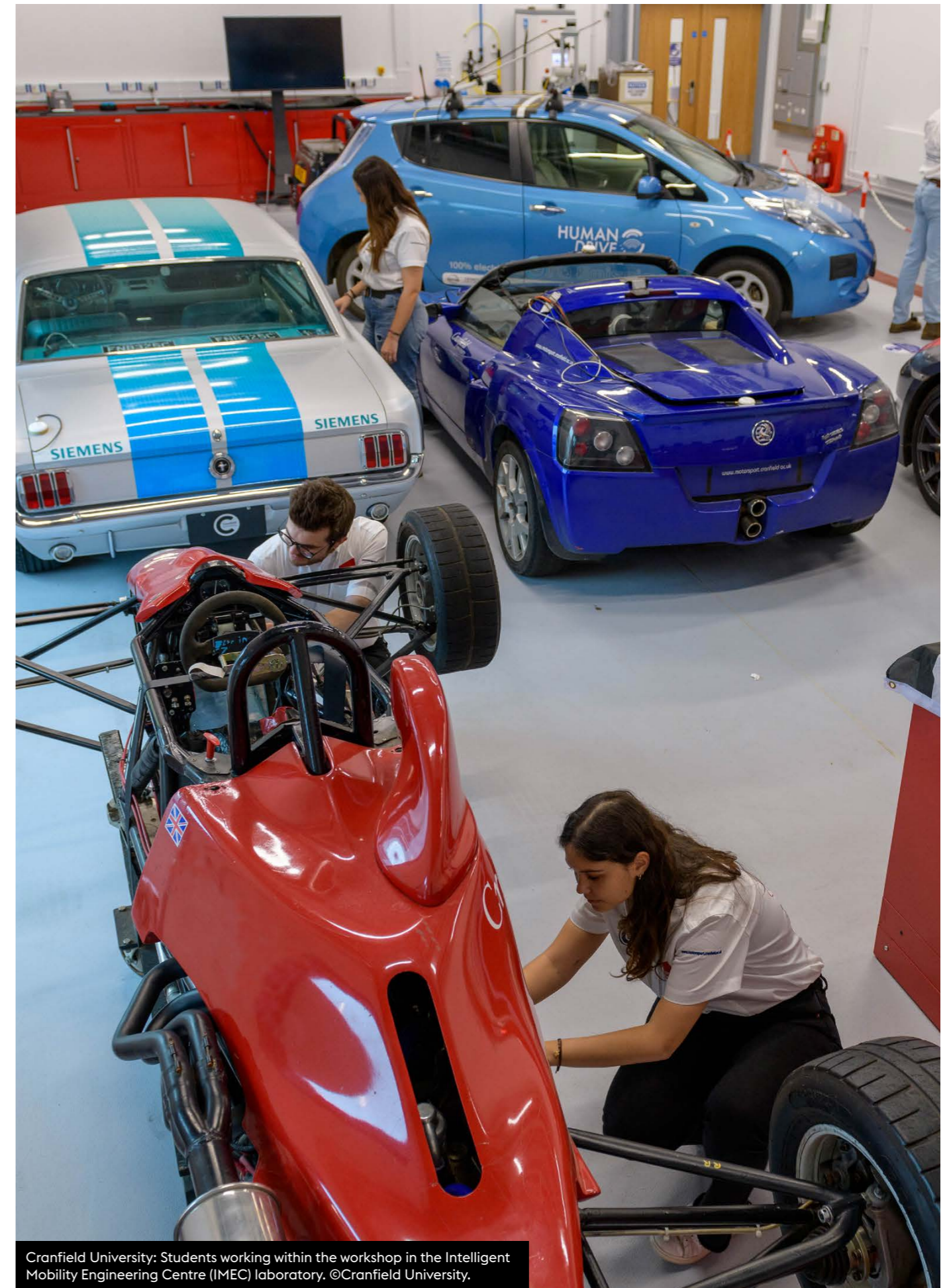
Cluster organisations

Rail Forum Midlands

- Location: Derby
- Key features: Industry body with strong regional connections. Hosts numerous industry events with close links to local and national authorities. Supports with training.
- Opportunity: Become a member of Rail Forum Midlands to access networking, events, and support from industry members for all needs, including trade missions.
- Contact: info@railforum.uk

UK Rail Research and Innovation Network (UKRRIN)

- Location: University of Birmingham
- Key features: Research network for the UK rail industry. Aims to improve the performance, reliability, and safety of the UK rail network. Provides a platform for businesses to share knowledge and expertise.
- Opportunity: join the Network to access to world-class research capabilities and facilities, gain an understanding of where key rail relevant research capabilities and facilities are in the UK, and take advantage of the opportunity for your challenges and research needs to be prioritised by academia.
- Contact: ukrrin@rssb.co.uk



Cranfield University: Students working within the workshop in the Intelligent Mobility Engineering Centre (IMEC) laboratory. ©Cranfield University.

Advanced manufacturing

Research assets

University based

High Temperature Research Centre (HTRC)

- Location: University of Birmingham
- Key features: £60 million, 5,800 m² research centre. Collaboration between Rolls-Royce and UK government. Researchers investigating delivery of rapid high-quality product and process innovation of investment casting.
- Opportunity: Partner with the Centre for cutting edge research influencing all aspects of manufacturing, including characterisation, surface engineering, and alloy processing.
- Contact: htrccontacts.bham.ac.uk

Institute for Advanced Manufacturing and Engineering with UNIPART

- Location: Coventry University
- Key features: Manufacturing factory floor based at Coventry University. Academic and industry collaboration researching digital manufacturing, digital twins, metrology, lasers and joining, structural integrity, sustainable manufacturing, and manufacturing innovation.
- Opportunity: Access a talent pipeline as well as research and factory equipment to drive innovative solutions to industry problems.
- Contact: +44 (0) 24 7765 9595

Manufacturing Technology Centre (MTC)

Opened in 2010, in Coventry, the MTC was established with the objective of bridging the gap between academia and industry – a gap often referred to as ‘the valley of death’. The MTC develops innovative manufacturing processes and technologies. Since opening, the MTC’s rapid growth has seen the expansion of their campus with the construction of three more facilities, including the opening of the Advanced Manufacturing Training Centre and the National Centre for Additive Manufacturing. The MTC supports not only R&D but also training, advanced manufacturing management and factory design, with over 700 skilled engineers working across the MTC estate.

The MTC SME Support team was formed to work directly with SMEs – be they start-ups, going through scale-up pains, or looking to mature into larger established businesses. Manufacturing SMEs are able to draw on the extensive resources of the MTC to address practical, technical, and strategic manufacturing challenges. The MTC now helps 100s of SMEs every year to embed innovation and new ways of working, increase their competitiveness, and accelerate their growth.

Research assets

University based

Omnifactory

- Location: University of Nottingham
- Key features: Research centre for additive manufacturing. Equipped with the latest cutting-edge technology. Researchers work on a range of projects, including new additive manufacturing processes, new materials, and new additive manufacturing applications.
- Opportunity: Partner with the Centre to develop and test the latest digital technologies that support additive manufacturing.
- Contact: omnifactory@nottingham.ac.uk

Advanced Steel Research Centre

- Location: University of Warwick
- Key features: Research centre for steel research. Equipped with the latest cutting-edge technology. Researchers work on a range of projects, including new steel grades, new manufacturing processes, and new steel applications.
- Opportunity: Develop new and improved materials and be on the cutting edge of steel processing, and product improvement.
- Contact: g.haslop@warwick.ac.uk

Intelligent Automation and Materials Characterisation Centre

- Location: Loughborough University.
- Key features: Applies advanced robotics and digital automation to create intelligent automation solutions to improve productivity, agility, efficiency and resilience across the supply chain.
- Opportunity: Opportunity to collaborate on industry-driven research projects and tap into academic expertise.
- Contact: connect@intelligent-automation.org.uk

Loughborough Materials Characterisation Centre

- Location: Loughborough University
- Key features: High quality characterisation of materials down to the atomic level and analytical services and £6M world-class equipment available to support transport research and industry partners.
- Opportunity: Access to high value characterisation equipment and bespoke consultancy services.
- Contact: lmcc@lboro.ac.uk

Catapults and other research collaboration opportunities

Black Country Elite Centre for Manufacturing Skills (ECMS)

- Location: University of Wolverhampton
- Key features: Two campuses offering employer led training for technical skills and knowledge. Specialises in engineering, manufacturing, casting and metal forming. Funded in collaboration with local authorities.
- Opportunity: Train your staff in key manufacturing skills.
- Contact: enquiries@theecms.co.uk

High Value Manufacturing Catapult East Midlands (Nuclear AMRC)

- Location: Derby
- Key features: Helping UK manufacturers win work in nuclear and other high-value low-carbon industries. Works with manufacturers to develop the technical capability to compete on cost, quality and delivery, and research techniques and technologies for the nuclear sector.
- Opportunity: Partner with the AMRC to enhance business capabilities and get ready to bid for nuclear work.
- Contact: +44 (0) 114 222 9900

High Value Manufacturing Catapult (WMG, University of Warwick, HQ)

- Location: University of Warwick
- Key features: Consortium of seven world-class research centres dedicated to building the future of transport. Specialises in transport and electrification, automated and connected vehicles, digital manufacturing, and materials and manufacturing.
- Opportunity: Partner with the Catapult to grow your business, conduct de-risked innovation and research, and address low-emissions mobility challenges.
- Contact: wmgbusiness@warwick.ac.uk

Electrification, energy generation and storage

Research assets

University based

Birmingham Energy Institute

- Location: University of Birmingham
- Key features: Researchers work on a range of projects, including new energy technologies, materials, and applications.
- Opportunity: Locate at the Institute's state of the art premises, to access laboratories for testing and evaluation, and commercialise ground-breaking research products.
- Contact: energy@contacts.bham.ac.uk

Energy Innovation Centre

- Location: University of Warwick
- Key features: Research centre for battery innovation. Equipped with the latest technology. Researchers work on a range of projects, battery re-use and recycling, process scale up, cell to module pack, and system performance.
- Opportunity: Access tailored training programmes, create new technologies, and generate new ideas.
- Contact: wmgbusiness@warwick.ac.uk

The UK Battery Industrialisation Centre (UKBIC)

The £130 million UKBIC is a pioneering concept in the race to develop battery technology for the transition to a greener future.

The unique facility provides the missing link between battery technology, which has proved promising at laboratory or prototype scale, and successful mass production. Based in Coventry, the publicly-funded battery product development facility welcomes manufacturers, entrepreneurs, researchers and educators, and can be accessed by any organisation with existing or new battery technology – as long as that technology will bring green jobs and prosperity to the UK.

UKBIC is a key part of the Faraday Battery Challenge (FBC), a Government programme to fast track the development of cost-effective, high-performance, durable, safe, low-weight and recyclable batteries.

Research assets

University based

Birmingham Centre for Strategic Elements & Critical Materials

- Location: University of Birmingham
- Key features: Researchers working on recycling and efficient use of rare earth materials, and the recovery and recycling of precious metals from batteries.
- Opportunity: Partner with the Centre to access cutting edge research on battery recycling and regulation, and the reduction and recovery of key materials.
- Contact: p.a.anderson@bham.ac.uk

Centre for Renewable Energy Systems Technology

- Location: Loughborough University Science and Enterprise Park
- Key features: First centre in the UK to offer a bespoke postgraduate degree in renewable energy systems technologies. Encourage cultural acceptance of new energy sources, resourcing policy development and increasing knowledge through proactive dissemination.
- Opportunity: Collaborate with the Centre and deliver research on a range of renewable energy issues, and access top class graduates.
- Contact: +44 (0) 1509 635340

UK Battery Industrialisation Centre

- Location: University of Warwick
- Key features: £130m million research and development centre for battery industrialisation. Equipped with the latest cutting-edge technology. Researchers work on a range of projects, including new battery manufacturing processes, new battery materials, and new battery applications.
- Opportunity: Develop and deploy new battery technologies without extensive capital outlay and get support in reducing manufacturing complexity.
- Contact: info@ukbic.co.uk

Energy and Bioproducts Research Centre

- Location: Aston University, Birmingham
- Key features: Delivers carbon reductions and cost-effective solutions. Combines expertise in thermochemical, biological and catalytic conversion of biomass to develop sustainable energy systems. Home to both academic and industry-facing teams.
- Opportunity: Partner with the Institute to collaborate with universities, industry, and government, and utilise expertise in cost-effective carbon reduction solutions.
- Contact: bioenergy@aston.ac.uk

Catapults and other research collaboration opportunities

Energy Systems Catapult

- Location: Birmingham
- Key features: Independent research and development organisation for energy systems. Aims to accelerate the development and deployment of new energy technologies. Provides a platform for businesses to share knowledge and expertise.
- Opportunity: Partner with the Catapult to secure funding, develop innovative Net Zero solutions, and work with a range of public and private partners.
- Contact: info@es.catapult.org.uk

West Midlands Gigafactory

- Location: Coventry
- Key features: Battery factory to produce 60GWh when at full capacity. £2.5 billion in investment. Aims to be the UK's largest battery manufacturing plant, with production intended to commence in 2025.
- Opportunity: Partner, develop, or invest at the West Midlands Gigafactory.
- Contact: lisa@influenceassociates.com

Sustainable Hydrogen CDT

- Location: Across the Midlands
- Key features: £10 million Centre for Doctoral Training (CDT) in Sustainable Hydrogen. Aims to train the next generation of researchers in hydrogen technology including for transport. Provides a platform for businesses to collaborate with researchers.
- Opportunity: Partner with the CDT to train the next generation of researchers in hydrogen technology and access world leading hydrogen research for transport.
- Contact: beinspired@sustainablehydrogen-cdt.ac.uk

Research assets

Cluster organisations

The Energy Research Accelerator cluster

- Location: Aston University, University of Birmingham, Cranfield University, Keele University, University of Leicester, Loughborough University, University of Nottingham, University of Warwick, and British Geological Survey.
- Key features: £180 million research network for energy. Aims to accelerate the development and deployment of new energy technologies. Provides a platform for collaboration.
- Opportunity: Partner with the Accelerator to develop new energy technologies, network with its members, and tap into its international partners.
- Contact: enquiries@era.ac.uk

HyDEX: Hydrogen Development and knowledge Exchange

- Location: All across the Midlands. The HyDEX programme comprises a range of partners - universities, businesses, local authorities, and international collaborators.
- Key features: HyDEX will support and foster the creation of a new hydrogen industrial economy in the Midlands. This will be achieved by working with SMEs, established Midlands-based and UK commercial partners, and multinationals to accelerate innovation, build markets and support the required skills transition. Partners will make available their hydrogen facilities, research capability and expertise, and large-scale hydrogen demonstrators that they have developed.
- Opportunity: The HyDEX project aims to work with partners to accelerate innovation, build markets and develop new skills.
- Contact: hello@hydex.ac.uk



Digital and AI

Research assets

University based

Midlands Future Mobility – Coventry

Midlands Future Mobility (MFM), based at Coventry University, offers a wide range of connected and automated mobility (CAM) development and trialling services, from initial virtual development through to real-world trials and market deployment. Through combined expertise and a comprehensive on-road trialling environment, covering over 200 miles (350 kilometres), MFM is ideally placed for businesses developing the future of mobility. Midlands Future Mobility brings together leading organisations from the automotive, transport,

communications, infrastructure and research sectors by creating an extensive connected platform for the development of future CAM solutions.

Covering a diverse road network including urban, inter-urban, campus and highways, MFM's real-world, connected trialling environment is the most comprehensive of its kind. Through extensive services in test and trial development, vehicle centre and testing platforms, 5G research, simulation, and human factors, MFM can support businesses in bringing new CAM technologies to market. The UK industry is set to be worth £52bn by 2035, with £200m currently committed by government and industry to support MFM.

Investment Opportunity – Connected and Automated Mobility modelling and simulation in Oxfordshire and the Midlands

Companies in the connected and automated mobility (CAM) Testbed UK region of Oxfordshire and the Midlands are leading the move to zero emission vehicles and green public transport. CAM Testbed UK offers investors the opportunity to develop connected and automated mobility technologies from concept to commercialisation.

CAM Testbed UK is offering six world-leading facilities for the modelling, simulation, testing, development and deployment of connected and automated mobility solutions.

The Testbed runs from London through Oxfordshire and into the Midlands. It offers investors access to an advanced, comprehensive, and coordinated CAM testing ecosystem, a world-class academic research community, a growing industry cluster and an impressive talent base.

The global market for CAM technologies will be £100 billion by 2035 and £6.4 billion in the UK alone. CAM Testbed UK enables technologies to be developed, tested, and proven, so they are ready to deploy in global markets.

Local and national government support

The region has a well-funded R&D base with a joint UK government and industry commitment of £440 million into more than CAM 90 projects. These involve more than

200 organisations working on self-driving and connected technologies. Local government partners can also support investors with recruitment and training, access to finance, site selection, and engagement with testbed facilities, universities and supply chain partners.

Research assets

University based

Centre For Excellence in Digital Systems

- Location: University of Birmingham
- Key features: Research centre for digital systems. Equipped with cutting-edge technology. Researchers work on a range of projects, including new digital systems, new digital technologies, and new digital applications.
- Opportunity: Conduct simulations and research on railway operations, data integration, cyber security, and condition monitoring and sensing.
- Contact: ukrrin@rssb.co.uk

Centre For Future Transport and Cities

- Location: Coventry University
- Key features: Research centre for future transport and cities. Aims to develop new technologies for the future of transport and cities around autonomy and safety. Provides a platform for businesses to share knowledge and expertise.
- Opportunity: Collaborate with the Centre to undertake research into low carbon power trains, connected and autonomous vehicles, materials engineering, manufacturing process optimisation, and industry 4.0.
- Contact: cgfm.admin@coventry.ac.uk

Intelligent Mobility Engineering Centre (IMEC)

- Location: Cranfield University
- Key features: An intelligent engineering teaching facility featuring vehicle workshops and laboratories for vehicle electrification, autonomous vehicles, control systems, and mechatronics. Located next to a purpose built experimental road facility for the rapid development of on- and off-highway, ground and airborne autonomous solutions. Hosts teaching rooms, study areas, laboratories, workshops and a simulation suite.
- Opportunity: Host events or provide employees with specialised training.
- Contact: +44 (0) 1234 758581

The UK Quantum Technology Hub for Sensors and Metrology

- Location: University of Birmingham
- Key features: Space and equipment to develop new quantum technologies. Experienced team of researchers skilled in the commercialisation of research. PhD students available for placements as well as research support.
- Opportunity: Work with researchers investigating applications of quantum sensors for industry.
- Contact: qthub@contacts.bham.ac.uk

Intelligent Automation Centre

- Location: Loughborough University
- Key features: Applies advanced robotics and digital automation to create intelligent automation solutions to improve productivity, agility, efficiency and resilience across the supply chain.
- Opportunity: Opportunity to collaborate on industry-driven research projects and tap into academic expertise.
- Contact: connect@intelligent-automation.org.uk

Loughborough Materials Characterisation Centre

- Location: Loughborough University
- Key features: High quality characterisation of materials down to the atomic level and analytical services and £6M world-class equipment available to support transport research and industry partners.
- Opportunity: Access to high value characterisation equipment and bespoke consultancy services.
- Contact: lmcc@lboro.ac.uk



Research assets

University based

Lincoln Centre for Autonomous Systems

- Location: University of Lincoln
- Key features: Cross disciplinary research group applying technologies to the transport sector including perception, learning, decision making, control and interaction in autonomous systems such as mobile robots, and robot manipulators. Facilities including robotics research labs, and a fleet of robots and microbots.
- Opportunity: Collaborate on autonomous system research projects within the transport sector.
- Contact: +44 (0) 1522 83 7113

Human Factors Research Lab

- Location: University of Nottingham
- Key features: Research lab for human factors. Equipped with cutting-edge technology. Researchers work on a range of projects, including human-computer interaction, human-machine interaction, and human-environment interaction.
- Opportunity: Partner with the lab to access car and train simulation labs and consultants with cutting edge research.
- Contact: human.factors@nottingham.ac.uk



Catapults and other research collaboration opportunities

National Centre for Accessible Transport

- Location: Coventry University
- Key features: Consortium of academia, policy, government, charity, and industry dedicated to making transport accessible. User-centred development and co-designed solutions to industry problems.
- Opportunity: Partner with the Centre to design accessible solutions to transport industry problems with the help of world class researchers.
- Contact: <https://www.ncat.uk/>

National Transport Design Centre (NTDC)

- Location: Coventry University
- Key features: Research centre for transport design. Equipped with the latest cutting-edge technology. Cross disciplinary research on a range of projects covering human factors, virtual and mixed reality and user simulation, and others.
- Opportunity: Secure funding, undertake training, collaborate on applied research, and get access to highly skilled staff and students.
- Contact: CGFM.admin@coventry.ac.uk

Transport Safety Research Centre

- Location: Loughborough University
- Key features: Research centre specialising in understanding real-world aspects of the transport-users and how this understanding impacts on transport safety and intelligent mobility. Home to Smart Mobility Living Lab – developed by a consortium of partners including Loughborough University, TRL, Transport for London, Costain, Cisco, Cubic, DG Cities and the London Legacy Development Corporation.
- Opportunity: Opportunity to collaborate on industry-driven research projects and tap into road safety and engineering related research expertise. Expertise includes accident causation analysis, road user behaviour, driver state monitoring (fatigue, distraction, cognitive workload), big data analysis (statistical and AI methods), injury impact and epidemiological studies, traffic and vehicle microsimulation, HMI evaluations (human-robot interactions), policy support systems, project management and delivery.
- Contact: +44 (0)1509 222651

Propulsion

Research assets

Catapults and other research collaboration opportunities

National Centre for Combustion and Aerothermal Technology

- Location: Loughborough University Science and Enterprise Park
- Key features: £100 million research centre for combustion and aerothermal technology building upon the Rolls-Royce University Technology Centre. Equipped with the latest technology. Researchers work on a range of projects, including new combustion technologies, new aerothermal technologies, and new applications for combustion and aerothermal technologies.
- Opportunity: Join with the Centre to access world leading researchers and the newest technologies.
- Contact: nccat@lboro.ac.uk

Advanced Propulsion Centre

- Location: University of Warwick
- Key features: £1 billion research and development centre for advanced propulsion. Aims to accelerate the development and deployment of new propulsion technologies. Provides a platform for businesses to share knowledge and expertise.
- Opportunity: Partner with the centre to receive funding, access international networks, and showcase at APC's events.
- Contact: info@apcuk.co.uk

An Investible Opportunity at Horiba MIRA Technology Park

- Location: Nuneaton, Warwickshire
- Key features: Independent research and development organisation for mobility. Aims to accelerate the development and deployment of new mobility technologies. Provides a platform for businesses to share knowledge and expertise.
- Opportunity: Locate at the Technology Park, utilise world class facilities and receive support from MIRA's onsite team.
- Contact: +44 (0) 24 7635 5000



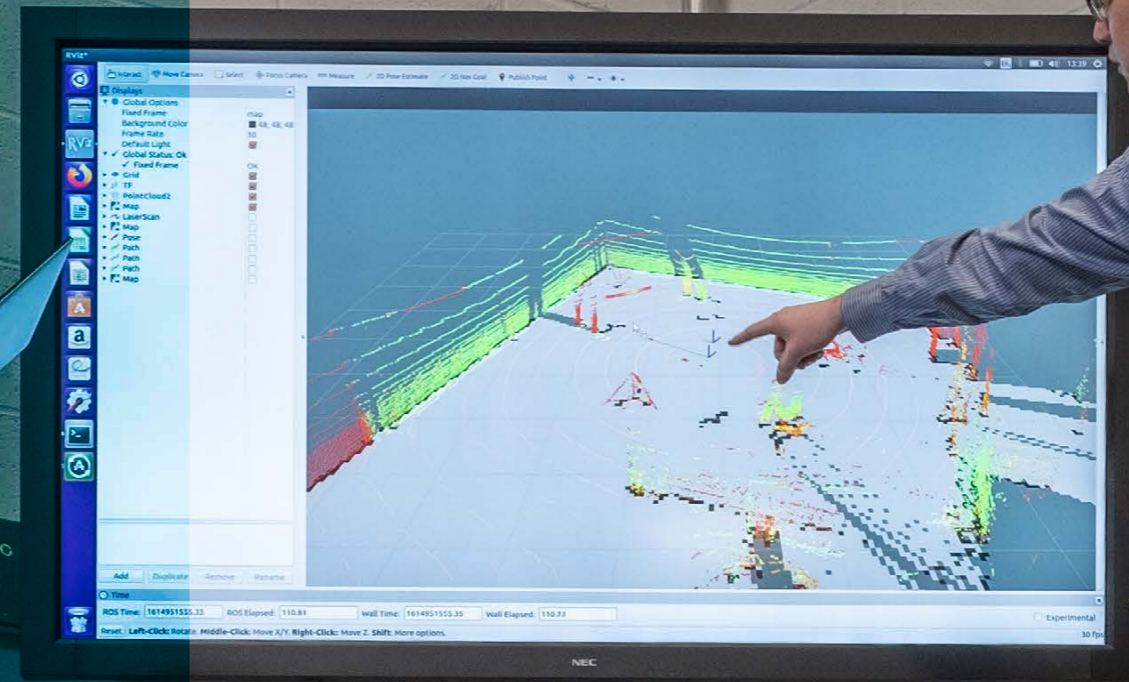
Horiba MIRA Technology Park.

Training

CDT in Future Propulsion and Power

- Location: Stewart Miller Building, Loughborough University, Loughborough
- Key features: This CDT will train engineers with the Data, Learning and Design and Systems Integration skills required by aero-thermal engineers of the future. Industry partners (including Rolls-Royce, Siemens, Dyson) are also committed to defining, delivering and supporting the Centre.
- Opportunity: Partner with the Centre to access aerothermal training and research with other industry and university partners.
- Contact: +44 (0) 1509 227480

Work
with us



Our universities

Location

From the Midlands, 90% of the UK's population and businesses are less than a four-hour drive away; 45% of heavy rail freight and 33% of heavy road freight comes from, goes to, or passes through the Midlands and, with the advent of HS2, London will be less than an hour away. By air, the Midlands is home to two international airports – Paris is just a 90 minute flight away – with access to the seaports of the Humber. The Midlands are home to 11 million people, 15% of the UK's GVA, and the only inland freeport. This is critical to dispersing the output of the Midlands and accessing the potential markets of not only the wider UK, but Europe and international buyers. The region is constantly growing with new development sites and spaces for bespoke builds, including labs, test spaces, and offices.

Joint research and knowledge exchange

The Midlands universities all have dedicated teams ready to assist with knowledge exchange and set up joint research teams between their world-leading academics and investors. These partnerships have in the past led to some of the critical innovations driving both current and future zero carbon technology.

Directory of contacts across the Midlands

University offices

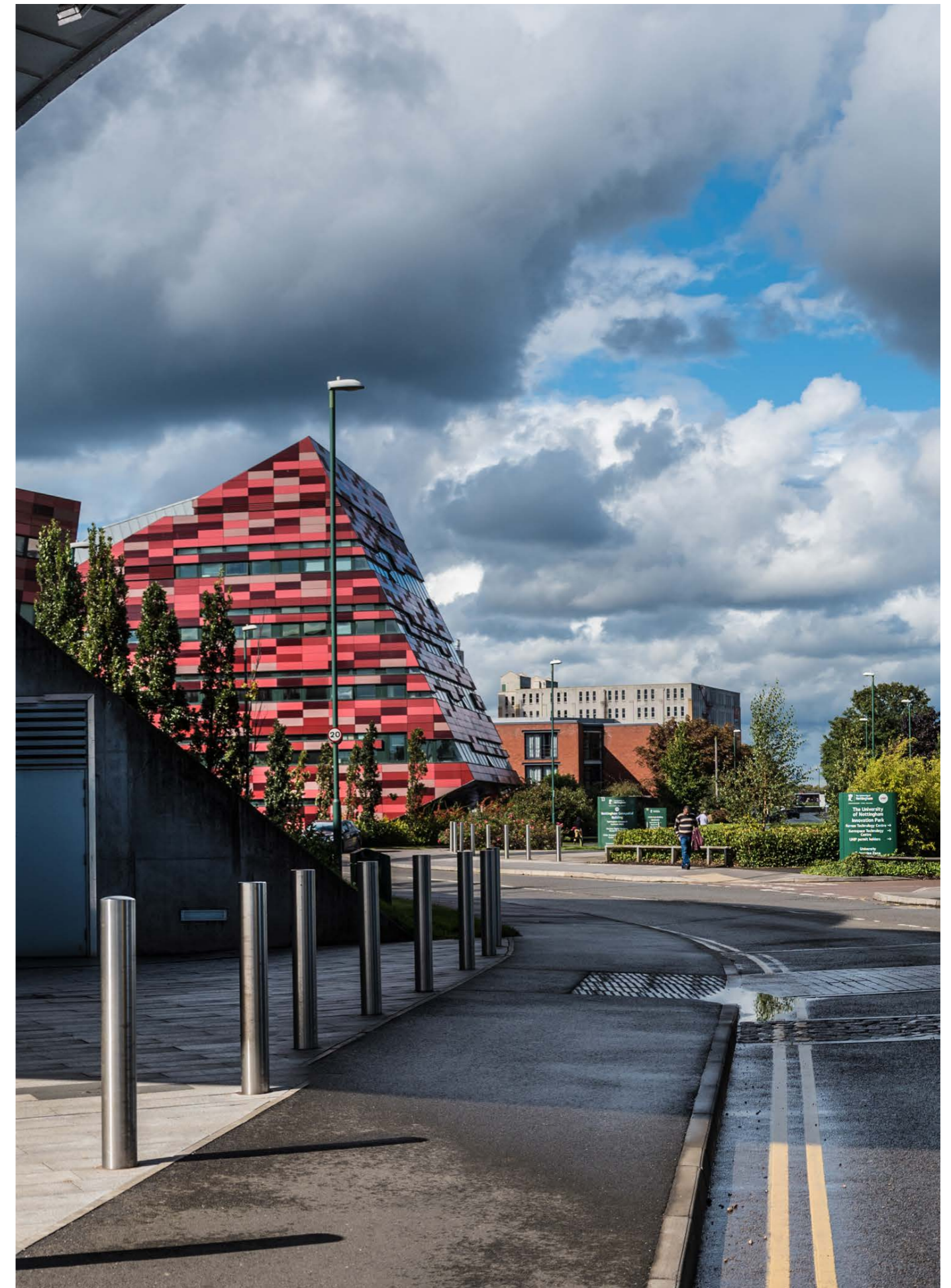
Each university has a team of experts who can provide advice on all aspects of research and development, including locating on a science park, joint research and knowledge exchange, commercialisation and equity investment, and accessing a skilled talent and innovation pool.

University	Business engagement and Technology Transfer	Careers service
Aston University	rke@aston.ac.uk	employerteam@aston.ac.uk
University of Birmingham	info@enterprise.bham.ac.uk	recruiters@contacts.bham.ac.uk
Coventry University	ei@coventry.ac.uk	talentteam@coventry.ac.uk
Cranfield University	business@cranfield.ac.uk	cranfieldcareers@cranfield.ac.uk
De Montfort University	businessservices@dmu.ac.uk	employerliaison@dmu.ac.uk
University of Derby	businessgateway@derby.ac.uk	employerteam@derby.ac.uk
Harper Adams University	reception@harper-adams.ac.uk	careers@harper-adams.ac.uk
Keele University	gateway@keele.ac.uk	gateway@keele.ac.uk
University of Leicester	redenterprise@le.ac.uk	employer.services@le.ac.uk
University of Lincoln	enterprise@lincoln.ac.uk	careers@lincoln.ac.uk
Loughborough University	innovation@mailbox.lboro.ac.uk	employer.services@lboro.ac.uk
University of Nottingham	workwithus@nottingham.ac.uk	recruiterservices@nottingham.ac.uk
Nottingham Trent University	workingwithyou@ntu.ac.uk	talent@ntu.ac.uk
University of Warwick	ventures@warwick.ac.uk	employerconnect@warwick.ac.uk
University of Wolverhampton	engage@wlv.ac.uk	theworkplace@wlv.ac.uk
University of Worcester	researchforbusiness@wor.ac.uk	careers@worc.ac.uk

Science Park Contacts

The Midlands is home to a thriving network of science parks, which offer businesses access to a skilled workforce, cutting-edge research facilities, and a supportive ecosystem. If you're looking to grow your business, a science park in the Midlands is the perfect place to do it.

University	Science or Technology Park
Birmingham Science Park Aston, Birmingham	info@astonsciencepark.co.uk
Birmingham Research Park, Birmingham	brpl@bham.ac.uk
Coventry University Technology Park, Coventry	+44 (0) 2476236000
Cranfield University Technology Park, Bedfordshire	joshua.parello@kirkbydiamond.co.uk
The Innovation Centre, Leicester	innovationcentre@dmu.ac.uk
University of Derby Science Park	+44 (0) 1332 742 800
INFINITY Park, Derby	ssalloway@salloway.com
Keele University Science and Innovation Park, Staffordshire	gateway@keele.ac.uk
Space Park, Leicester	enquiries@space-park.co.uk
Lincoln Science and Innovation Park	enquiry@lincolnsiencepark.co.uk
Loughborough University Science and Enterprise Park	lusep@lboro.ac.uk
University of Nottingham Innovation Park, Nottingham	reception@unip.nottingham.ac.uk
Nottingham Science Park	regeneration@nottinghamcity.gov.uk
University of Warwick Science Park, Coventry	more-info@uwsp.co.uk
University of Wolverhampton Science Park, Wolverhampton	joinus@wolverhamptonsp.co.uk
Birmingham Innovation Quarter, Birmingham	hello.scitech@brunwood.co.uk
Skylon Park, Herefordshire	info@skylonpark.co.uk



University of Nottingham: Innovation Park, Nottingham.

Investment support across the Midlands

The West Midlands Growth Company offers investors support to find the right networks, receive advice on locations, secure sector specific market research, identify funding support, and generate publicity. The West Midlands Growth Company has a number of sector specialists to offer bespoke support to help you achieve your goals. As a single point of contact, they can put together a team from recruitment agencies, universities, public agencies, and property agents to assist companies investing in or moving to the West Midlands. For international companies, there are fully funded market entry support packages on offer through the West Midlands Global Growth Programme. Packages can cover market entry, commercial space and business accelerator support. You can get in touch at invest@wmgrowth.com or by calling +44 (0) 121 202 5022.

A new £107 million support service has also just been launched by the West Midlands Combined Authority. Business Growth West Midlands provides business advice and funding to businesses looking to expand. Contact them online or by calling +44 (0) 345 646 1352.

The UK Government is committed to supporting investors that are seeking to expand into the Midlands. Officials from the Department Business and Trade can assist with contacts, identifying funding sources, sourcing opportunities, and to navigate the investment environment. DBT provides advice directly to investors about the business environment in the UK, including tax, access to finance, banking, research and development (R&D), visas and skills. Department for Business and Trade (DBT) specialists provide international trade and investment support to businesses seeking to locate in the East Midlands. They can be reached on +44 (0) 20 4566 5302. Other relevant government contacts include the Science and Innovation Network (SIN) hosted at UK embassies and missions overseas, and the Department for Science, Innovation, and Technology (DSIT), which works to build the UK's capabilities in these areas.

Place focused inward investment support

Inward investment is supported by dedicated organisations in other parts of the Midlands, as detailed below.

- **Destination Chesterfield**
+44 (0) 1246 207207
- **Invest Coventry and Warwickshire**
contact@investcw.co.uk
- **Marketing Derby**
invest@marketingderby.co.uk
- **Invest in Leicester**
enquiries@investinleicester.com
- **Invest in Nottingham**
enquiries@investinnottingham.co.uk
- **Invest Telford**
Invest@telford.gov.uk
- **Invest Shropshire**
invest@shropshire.gov.uk
- **Invest Stoke-on-Trent**
enquiries@investstoke.co.uk
- **Invest Staffordshire**
hello@wearestaffordshire.co.uk
- **Invest in West Midlands**
invest@wmgrowth.com
- **Invest Wolverhampton**
invest@wolverhampton.gov.uk
- **Invest in Worcestershire**
+44 (0) 1905 677888
- **Team Lincolnshire**
investment@lincolnshire.gov.uk

UK Investment Support

The UK's ability to develop new ideas is one of our great strengths, from the jet engine and the bagless vacuum cleaner to MRI scanners and the world wide web. The UK's talent pool, funding and incentives and business infrastructure all help create an environment of business innovation. Our commitment to world-leading research and development will help your business reach its full potential. We are one of the most innovative countries in the world - ranked in the top 5 countries in the Global Innovation Index 2019. For companies such as Ford, Pfizer, Eli Lilly, Nokia and Eisai, the UK's business environment is the natural choice for investment in innovation.

Government help for your business

The UK government's innovation agency, Innovate UK, helps businesses develop new ideas and turn them into a commercial success.

It can help you:

- access funding
- connect with researchers and other collaborators
- find potential customers

Financial incentives to innovate in the UK

The UK offers generous financial support and tax incentives for innovation in the UK.

These include:

- UK Research and Innovation (UKRI) funding through our Research Councils and Innovate UK
- research-led tax incentives such as Patent Box, R&D Tax Relief and R&D Expenditure Credit

World-class talent

In the UK you'll have access to world-class academic and research talent. You'll also be able to take advantage of a good supply of highly skilled employees. Our many innovation initiatives include our Grand Challenges. These bring together the best minds in science and business to explore opportunities from 21st century global trends.

Regulation to protect your ideas

The UK has a world class intellectual property regime. This protects the names, ideas, products, designs and written word of businesses.

Find out about UK intellectual property laws after the UK's exit from the EU on the [great.gov.uk](https://www.gov.uk/government/organisations/great-britain) website.

Infrastructure that supports innovation

The UK invests £6 billion each year in research councils and universities. The UK's network of Catapult Centres help emerging technologies become commercially viable. A range of 'business clusters' up and down the country offers specialist expertise.

These include:

- advanced engineering and medical technologies in the Northern Powerhouse
- the UK's answer to Silicon Valley in the Cambridge, Milton Keynes and Oxford corridor
- a thriving life sciences research and renewables scene in Edinburgh

High Potential Opportunities

The UK Department for Business and Trade identified multiple High Potential Opportunities for investment in the Midlands. The HPOs are supported by the UK government to make them more accessible to foreign investors. To find the full list of HPOs available in the Midlands and how the government can support your business taking advantage of them, contact DBT by calling +44 (0) 20 4551 0011, or using one of the services listed below.

Freeports

The UK Freeports are areas where the normal customs do not apply. At Freeports, imports can enter with a simplified customs documentation and without tariffs. Business operating in the designated zone around the Freeports can manufacture using the imports and export the finished products through the Freeports, all without facing the regular tariffs. The East Midlands Freeport is the only UK Freeport connected to an airport rather than a traditional sea port, and presents a unique opportunity for companies who manufacture and re export. To find out more and how your company can benefit from the East Midlands Freeport, get in contact with the team at info@emfreeport.com.

Investment Zones

The UK government has designated both the East Midlands and the West Midlands as investment zones, a new policy announced in 2023. The zones will receive £80 million support from the government over the next five years for tax incentives and resource spending. Examples of policies include business rates relief, stamp duty relief, capital allowances, and lower employer National Insurance contributions. To find out more, get in contact with one of the investment specialists listed above.

General investment support

- The Global Entrepreneur Programme provides support for overseas high growth business looking to move to the UK.
- The Venture Capital Unit connects UK registered growth businesses and start-ups with investors and funders.
- The UK Investment Support Directory provides connections between overseas businesses wanting to set up in or expand to the UK and those from the private sector in the UK who can assist, whether that be in legal concerns, marketing, HR, or other needs.

Export Support Service

- The Export Support Service helps those based in the UK looking to export abroad.
- The UK Export Finance team can help with funding and insurance for UK exports.
- The East Midlands Freeport team can help you take advantage of the tax incentives and freeport benefits. Reach them at info@emfreeport.com.





GREAT
BRITAIN & NORTHERN IRELAND

Department for Business and Trade

We support growth by backing businesses in the UK and globally, promoting investment and championing free trade.

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