Sir John Peace

Introduction

With an economy worth more than £200 billion a year ... the Midlands has become a real focus for UK Life Science research and business growth.

Sir John Peace - Chairman, Midlands Engine

Life Sciences has become a multi-billion dollar, global business. It tackles issues which know no borders - health and disease, well-being and the ageing of populations – by fostering an environment of international co-operation.

With an economy worth more than £200 billion a year, the Midlands, with its excellent national and international transport connections, particularly in Birmingham and Nottingham, has become a real focus for UK Life Science research and business growth.

The Midlands is also driving the sector internationally, not least because our world-class universities, 7 of which have medical schools, promote strong collaboration between academia, industry and health.

Due to a unique cluster of specialist provision, the Midlands is the UK’s centre for Trauma & Defence Medicine. The new Defence and National Rehabilitation Centre is under construction at Stanford Hall in Nottinghamshire.

The Midlands has stable yet diverse urban and rural population demographics and our Clinical Trial capability is extensive, with over 3,500 studies carried out by regional health organisations in 2016.

We have strong life science supply chains, including manufacturing companies and contract research organisations resulting in a diverse, adaptive and strong offer to inward investors.

From Med-Tech to Bio, the Midlands offers a strong support network to businesses moving into the region. With specialist sector knowledge and local networks across the region, we offer support from the Academic Health Science Networks and Medilinks, through to our Growth Hubs.

Our Centre for Healthcare Equipment and Technology Adoption at Nottingham University Hospital, was set-up as a direct response to the challenge from the NHS to adopt new devices and put new technologies into practice.

The already strong economy of the Midlands will be further enhanced by the major investments the UK government is making, namely HS2 high speed rail, which will have a profoundly transformative effect on the region.

As a Midlander I know what a great place the Midlands is to live and work in. As you read on, I hope you will realise this too.

I hope you decide to join us.

Sir John Peace
Chairman, Midlands Engine
Welcome

The Midlands Engine for Growth

Located in the centre of the United Kingdom, the Midlands Engine is the heartbeat of the nation’s economy.

The Midlands Engine is the place to do business, with a world-class research and innovation infrastructure including science and technology parks and business incubation facilities, alongside the delivery of knowledge exchange programmes.

Home to the largest number of medical technology and device companies in the country, with a strong life sciences pedigree that stretches from Nottingham, BioCity as its centrepiece, to Birmingham, with the newly opened Institute for Translational Medicine, the region is also underpinned by a strong private sector base containing globally significant companies such as 3M, Abbott Healthcare, Merck & Co, Parexel, Walgreens Boots Alliance, Reckitt Benckiser, Alunbeamex and Quintessent Clinical, as well as key manufacturers Jaguar Land Rover, Rolls Royce (Aerospace) and JCB, to name but a few.

The Midlands Engine has over 1,100 life sciences businesses supporting over 30,565 high skilled jobs. Of the 4.3 million people working in the Midlands Engine, 36.3% are in knowledge intensive sectors.

The Midlands Engine links the UK to the rest of the world through its network of freight and passenger airports, and connects the country through its road network and rail links. 90% of all UK businesses are within 4 hours’ drive from the Midlands.

The Midlands has a rich set of research and innovation assets. Home to over 20 Universities, 3 being in the Top 15 Universities, supported by a network of 54 Further Education Colleges, the 2014 Research Excellence Framework found world leading research in 281 University departments. One of our Midlands Engine Universities ranks in the UK top 10 for research power.

It is recognised that the Midlands Engine is home to a large, ethnically diverse and stable population with the largest non-white British population (35.4%) outside of London. This large and stable, diverse ethnic population and demographic mix provides a perfect platform for medical research and clinical trials.

The Midlands Engine has 7 medical schools; each benefiting from proximity to, and close working with, NHS Trusts. The training activity in medical schools is very significant, representing ~20% of the national output; this is also reflected in the scale of our regional training capacity in science and engineering.

Between 2011 and 2015, the Midlands Engine region attracted 880 Foreign Direct Investment projects, creating over 48,000 new jobs and safeguarding a further 23,000. The region accounted for 16% of the UK’s overall exports in 2013, selling to over 178 countries worldwide. Exports increased by 38% between 2010 and 2013.

The Midlands particular excels in specialist service and supply businesses, ranking first ahead of the South East and East of England, with nearly 12,000 jobs and over 17% of the national employment total (16% in BioPharma and nearly 20% in MedTech).

The Midlands Engine has strength in core MedTech industry, with 10% of employment (19,000 jobs) in Medical Technology, making the Midlands the second largest UK employer in MedTech - to be further strengthened with the Defence Medicine Rehabilitation Centre relocating to the region.

The Midlands Engine contributes over £200 billion a year to the UK economy, with a third of all UK manufacturing jobs being based in the Midlands.

Within top 3
for UK Life Sciences

Ranked 1st
for specialist services and

Second largest
UK employer in MedTech

Stable population
Large, ethnically diverse and stable population

16%
of the UK’s overall exports

Medical Schools account for 20% of the national output
Why locate here?

The Midlands Engine has a compelling offer of commercial opportunity, affordability, connectivity and quality of life.

The Midlands Engine is home to extensive research and development facilities, as well as one of Europe's largest and most diverse populations.

The availability of land and development opportunities within the region for companies looking to expand or invest in the life sciences sector and take advantage of accelerated clinical programmes, along with an established and well-connected life sciences community, provides exciting opportunities to new and existing businesses. This, combined with state of the art clinical and global healthcare facilities, drives strong collaboration between academia, industry and health to give the region’s life sciences industry a competitive advantage. For companies operating on a global level, the Midlands Engine is a catalyst for extending supply chains and a key to long term growth.

Connectivity & Accessibility

At the heart of road and rail infrastructure, the Midlands strategic road and rail networks such as the M6, the M1, the West Coast Mainline, the East Coast Mainline, and the Midlands Mainline are all of national importance. The East Midlands Gateway project will provide a Strategic Rail Freight Interchange with up to 6 million sq ft of new distribution and storage buildings, built next to the UK’s only 24 hour Air Freight Terminal airport with links to the motorway network allowing goods to be shipped easily anywhere across the UK, an import and export advantage.

Manufacturing & Supply Chain

- The Midlands has a strong advanced manufacturing and engineering base which employs 357,000 people and accounts for 19.7% of the UK’s manufacturing output.
- 760 core medical technologies businesses and a further 305 associated service and supply businesses – 29% of the UK total.

Skills Base

- A knowledgeable and collaborative life sciences skills base
- 20-24 year olds are the largest demographic group
- Approximately 4.3 million people (15.7%) in the Midlands Engine region are in employment, with 38.3% judged to be in knowledge intensive sectors
- 30,565 highly skilled jobs in life sciences
- 80,058 A level students in the Midlands Engine
- Percentage of students achieving grades AAB or better at A level: 49.6%

Clinical trials

- Leading clinical trials capabilities: 117 clinical trials facilities
- Unique population – a large and stable, diverse ethnic population and demographic mix provides a perfect platform for medical research and clinical trials (largest non-white British population (35.4%) outside of London); many who are settled in the region are 3rd and 4th generation and, unlike in other locations, they are non-transient.

Liveability & Affordability

- Wide range of residential properties available in a mix of urban and rural locations
- Average house price £199,500 (London £585,000 / South East (Oxford) £376,000 / East of England (Cambridge) £311,000)
- Region boasts Areas of Outstanding Natural Beauty such as the Peak District and the Cotswolds
- Cost of living on average 35% lower than London, almost 26% lower than the South East (Oxford) and 18% lower than the East of England (Cambridge)

Infrastructure & Capacity

- Wide range of accommodation available from new build to established research & development facilities
- 1171 life sciences & healthcare businesses
- 10 Growth Hubs
- 50 Major Hospitals
- 49 Clinical Commissioning Groups
- 12 Sustainability and Transformation Partnerships (27.2% of UK STPs)
- Serving a footprint of 11 million people

Academia

- 25 out of 27 Universities offer courses connected to health
- 7 Schools of Medicine
- Midlands Engine Institutions secured 30% of all UK Research Council funding over the 2010-2015 period, in total around £1.4 billion
- World-leading research in 281 University departments
- 740 Secondary Schools - 49.6% achieve AAB and 26.5% 3A*-A Grades

(These data is as per the Science & Innovation Audit, September 2016)
Strength of the Midlands

The Midlands Engine offers an unparalleled blend of businesses, Universities and research translation centres, coupled with strong collaboration, research and clustering activities which combine to make an established and well-connected eco-system.

Academic Collaborations

Midlands Innovation (www.midlandsinnovation.org.uk)

A collaboration of eight research-oriented Universities (Aston, Birmingham, Cranfield, Keele, Leicester, Loughborough, Nottingham, and Warwick) combining their collective excellence to unite the power of University research with the unique strengths of Midlands industry to drive cutting-edge research, innovation and skills development.

3 Midlands Innovation Universities are in the Top 100 QS World University rankings.

4 noted in the top 20 for the 2018 Complete University Guide.

The 8 Midlands Innovation Universities generate £1.1bn of Intellectual Property Income in one year.

11% of all Midlands Innovation Universities generate £1.1m of Intellectual Property Income in one year.

Midlands Enterprise Universities (www.midlandsenterprisuniversities.co.uk)

A partnership of seven entrepreneurial Universities (Birmingham City, Coventry, Nottingham Trent, Derby, Lincoln, Wolverhampton and De Montfort) working together to drive productivity and economic growth across the Midlands through skills, innovation and enterprise to drive cutting-edge research, innovation and skills development.

Clinical Collaborations

The region's two Academic Health Science Networks (AHSNs) lead, catalyse and drive co-operation and productivity between Academia, Industry, Health and care providers and commissioners and citizens, helping to accelerate the adoption of innovation to generate continuous improvement in the Midlands Engine health and wealth. They both have specific Themes and Priorities in which Clinical, Academia and Industry collaborate in order to provide solutions to NHS challenges.

Three solutions that have evolved to address these challenges with clinical and industry collaborations are:

- RAIDPlus Integrated Mental Health Urgent Care Test Bed – patients in Birmingham and Solihull will be among the first to benefit from a major new drive to modernise how the NHS delivers mental health care. Partner organisations: WMHASN; Birmingham & Solihull Mental Health NHS Foundation Trust; Accenture; Birmingham Community Healthcare NHS Trust; Joint Commissioning Team – Midlands & Lancashire Commissioning Support Unit; West Midlands Ambulance Service; West Midlands Police.
- Lung Cancer Indicator Detection (LuCID) Breathalyser – supported by SBR funding. Owlstone reprogrammed their microchip software and collaborated with researchers and designers from across Europe to design user-friendly breathalyser hardware to create a handheld device that can detect early stage lung cancer. Partner organisations: Owlstone Inc; Papworth Hospital; University College London; University of Leicester.
- The Transfer of Medicines programme aims to implement a process that can facilitate the safe transfer of medicines at both the interface and handover of care. The process will support the medicines reconciliation process to reduce medication-prescribing errors. Partner organisations: University Hospitals Birmingham NHS Foundation Trust; Heart of England NHS Foundation Trust; Pfizer Ltd.

The region’s two AHSNs are engaging with Industry to facilitate: Digital Health, Clinical Trials and Evaluation, Innovation and IP Protection, Market Entry and Adoption, Inward Investment and Wealth Creation.

Business Support

Medilink Midlands

The Life Sciences Industry Association, with offices in both East and West Midlands, supporting the regions Life Sciences Sector for over a decade

>1700

Life sciences & healthcare businesses within the Midlands Engine Region

£1.4 bn

With 20+ Universities, Midlands Engine institutions secured 30% of all UK Research Council funding over the 2010 – 2015 period, in total around £1.4 bn

£3 bn

Midlands Enterprise Universities collectively contribute more than £3 billion to the region’s economy

20%

The Midlands Engine’s 7 Medical Schools train 20% of the UK’s medical professionals

£3.4 bn

Industrial R&D is core to the Midlands Engine. Businesses invested over £3.4 billion in R&D in 2014 with over 34,000 employees engaged in R&D activity
Strengths of the Midlands

The Midlands Engine offers an unparalleled blend of businesses, universities and research translation centres, coupled with strong collaboration, research and clustering activities which combine to make an established and well-connected eco-system.

20% of the UK’s manufacturing output comes from the region, providing one third of UK manufacturing jobs.

The region is home to the largest number of MedTech supply chain companies and also home to 20% of the UK’s manufacturing output which provides one third of all UK manufacturing jobs. This market is fed by a highly-skilled talent pool and links to vibrant, world-class research bases such as the four ‘Catapult’ centres that bring together clinicians, scientists, engineers and business to evolve medicines, manufacturing, transport and energy systems. The Manufacturing Technology Centre (MTC) in Coventry is part of the High Value Manufacturing Catapult group and develops innovative manufacturing processes and technologies to support a range of manufacturing sectors across the region and further afield.

Catapult centres

The Catapult Centres are a network of world leading centres designed to transform the UK’s capability for innovation in specific areas and help drive future economic growth.

- Medicines Discovery Catapult laboratory - A new innovative Medicines Discovery Catapult facility targeted at developing new complex biological assays and advanced biochemical analysis.
- High Value Manufacturing Catapult HVM is the application of leading edge technical knowledge and expertise to the creation of products, production processes, and associated services.
- Energy Systems Catapult Transformation of our whole energy system and capture the new commercial opportunities created (covering electricity, heat and combustible gases).
- Transport Systems Catapult UK’s technology and innovation centre for Intelligent Mobility – the future of transport systems.
The Midlands Engine has six (soon to be seven) Medical Schools; each benefiting from proximity to, and close working with Hospital Trusts. The training activity in medical schools is very large representing ~20% of the national output; this is also reflected in the scale of our regional training capacity in science and engineering. Our Medical Schools are now working together with other key stakeholders as the ‘Midlands Health Innovation’ group.

Significant strength cross-region

The region has significant strength in clinical trials in terms of both infrastructure and expertise - the Institute of Translational Medicine (ITM) and the Birmingham Centre for Clinical Trials, with specific expertise in the design and running of medical device trials (D3B team) and high accrual rates. Europe’s second largest academic trials infrastructure (only behind Oxford), together with the Leicester, Nottingham, Warwick and Derby Clinical Trials Units, amounts to a significant proportion of the UK’s clinical trials capability. Other key related assets include Health Economics with a devices and diagnostics focus (MATCH - Birmingham, Nottingham and Warwick; and Birmingham’s Patient Reported Outcomes Centre).

Below we highlight a few of the non-commercial facilities.

Clinical Business Support Centres

The Midlands Engine skills base makes it the go to location for organisations who want to develop diverse and dynamic partnerships between businesses, academia, suppliers, and customers. The region is further poised to capitalise on its ecosystem of assets to create a globally significant resource for the life sciences industry, bringing together industry with clinical, scientific, and academic excellence across an integrated medical and life sciences community. The Midlands Engine has several well-established life sciences locations. These clusters offer instant networks, access to professional services, academia, industry support and funding.

Below we highlight a few of the non-commercial facilities.

1 Institute of Translational Medicine
Birmingham

The Birmingham Institute of Translational Medicine uses cutting-edge scientific discoveries to accelerate the provision of personalised healthcare. Acting as a central hub for clinical trials acceleration and stratification, and clinical informatics, the ITM brings experts together to rapidly turn medical science into innovative patient and healthcare system applications. It does this by providing a platform for interaction between basic scientists, academic clinicians, clinical informatics, biostatisticians and trial design experts in biomarker development and validation.

2 East & West Midlands AHSNs

Two key organisations working across all areas of the Midlands Engine that strive to bring Academia, Business and Clinicians together are the East & West Midlands AHSNs, who are there to generate, interface and support interactions for Clinical excellence and economic growth through their research support, adoption of technology and signposting services to specific regional clinical and business expertise and assistance.

3 East & West Midlands Clinical Research Networks (CRN’s)

The East & West Midlands CRN’s (Clinical Research Networks) are two of the 15 regional networks within England which form part of the National Institute for Health Research (NIHR). The CRNs are funded by the Department of Health, and are the clinical research delivery arm of the NHS. As part of the wider NIHR, the Network provides infrastructure to support clinical research in the NHS, giving patients access to new treatments. Their priority is to proactively support the Life Sciences industry to deliver high quality clinical research in the NHS, and to ensure that they have developed a range of free services and support tools.

4 Birmingham Health Partners (BHP)

Birmingham Health Partners (BHP) is a strategic alliance between the University of Birmingham (UoB) and three West Midlands major teaching hospitals; University Hospitals Birmingham NHS Foundation Trust (UHB) and Birmingham Women’s and Children’s NHS Foundation Trust (BWC) together with the Shropshire Group of England’s leading Academic Medical Centres. BHP’s mission is to harness research strengths in the University and NHS to deliver better treatments and care to our patients.

5 Centre for Healthcare Equipment & Technology Adoption (CHEATA)

CHEATA is part of Clinical Engineering at Nottingham University Hospitals NHS Trust and offers a unique support service to clinical, academic and commercial med-tech developers to gather evidence for NHS adoption and to develop devices that are truly NHS-ready. Their expert services include identifying and engaging with key opinion leaders and clinical healthcare scientists, all aspects of regulatory compliance, health economic modelling, building value propositions, supporting and managing clinical investigations and engagement with NICE for inclusion into national guidelines.

6 National Centre for Sports and Exercise Medicine (NCSEM)

The National Centre for Sports and Exercise Medicine (NCSEM), has three regional hubs including one in the East Midlands based at Loughborough University in the School of Sport, Exercise and Health Sciences. The NCSEM translates high quality research in sport, exercise and physical activity into policies and practice that will benefit the health and wellbeing of the nation, from everyday people at risk of ill health through to elite athletes. Evidence shows that sport, exercise and physical activity are effective in the prevention, treatment and management of disease and can enhance mental health and wellbeing, reducing the risk of mental illnesses such as depression, dementia and Alzheimer’s. The NCSEM-East Midlands hub is based in a state-of-the-art building, purpose designed to facilitate the transfer of high quality research into frontline patient care. The building features a range of cutting-edge technology and specialist medical equipment including a 3T MRI scanner that is being successfully used for both patient care and new research.
Core Life Sciences

Business Resources

The Midlands Engine region is a distinctive UK centre for clinical trials, and research and development, having a wealth of experience across a wide range of diseases, conditions and clinical settings, all of which need specific trial designs to test and evaluate them accurately and sufficiently. To facilitate the needs of Industry and to satisfy their regulatory requirements in order to bring ideas and concepts to market, the region has evolved a wide range of industry medical support organisations, both public sector NHS and Academic as well as commercial.

Regional Centres of Clinical Research Excellence

- Advanced Therapies Facility (University of Birmingham)
- Arden Tissue Bank (University Hospital Coventry)
- Anthony Nolan Cell Therapy Centre (Nottingham Trent University)
- Birmingham University Imaging Centre (University of Birmingham)
- Cancer Research UK Birmingham Centre (University Hospitals Birmingham)
- Cancer Research UK Clinical Trials Unit (University of Birmingham)
- Cancer Research UK Experimental Cancer Care Medicine Centre (University of Birmingham)
- Centre for Advanced Science, Engineering and Technology Skills (Black Country LEP)
- Centre for Analytical Science (Loughborough University)
- Centre for Biological Engineering (Loughborough University)
- Centre for Biomolecular Sciences (University of Nottingham)
- Centre for Clinical Haematology (University Hospitals Birmingham)
- Centre for Computational Biology (University of Birmingham)
- Centre for Defence Medicine (University Hospitals Birmingham)
- Centre for Digital Health (WIMG, University of Warwick)
- Centre for Healthcare Technologies (University of Nottingham)
- Centre for Healthcare Technology Assessment (CHEATA), (Nottingham University Hospitals NHS Trust)
- Centre for Patient Reported Outcome Research (CPROR) (University of Birmingham)
- Centre for Prognosis Research ( Keele University)
- Centre for Rare Diseases (University Hospitals Birmingham)
- Centre for Translational Inflammation Research (University of Birmingham)
- Centre for Vision & Hearing Research (Aston University)
- Centre of Excellence for Telehealth and Assisted Living (CETAL) (Buckinghamshire New University)
- Centre of Precision Rehabilitation for Spinal Pain (University of Birmingham)
- Centre of Rare Diseases (University of Birmingham)
- Clinical Immunology Service (University of Birmingham)
- Elite Centre for Manufacturing Skills (The Black Country LEP, West Midlands)
- EPSRC Centre for Innovative Manufacturing in Regenerative Medicine (Loughborough University)
- EPSRC and MRC Centre for Doctoral Training in Regenerative Medicine (Keele University)
- European Association for Cancer Research (University of Nottingham)
- European Centre of Excellence in Tissue Engineering (Keele University)
- Health and Wellbeing and the Medical Devices and Advanced Materials Research Centres (Nottingam Trent University)
- Health Services Management Centre (University of Birmingham)
- Henry Wellcome Building for Nuclear Magnetic Resonance (University of Birmingham)
- Human Biomaterials Resource Centre (University of Birmingham)
- Institute of Digital Healthcare (University of Warwick)
- John Van Geest Cancer Research Centre (Nottingham Trent University)
- Keele Anatomy and Surgical Training Centre (Keele University)
- Leicester Bone Bank (University Hospitals of Leicester)
- Leicester Precision Medicine Institute (University of Leicester)
- MIFireTech Healthcare Technology Co-operative (Nottinghamshire Healthcare NHS FT)
- Motion and Performance Centre (MPC) (University of Worcester)
- MRC-Arthritis ResearchUK – Centre for Musculoskeletal Ageing Research (University of Birmingham)
- National Arthritis Research Unit (Keele University)
- National Pollen Research and Aerobiology Centre – Darwin Centre (University of Birmingham)
- NHS Blood and Transplant Service (NHSBT) (University Hospitals Birmingham)
- NHS Global Digital Exemplar (University Hospitals Birmingham)
- NIHR Biomedical Research Centre in Inflammatory Disease (University Hospitals Birmingham and University of Birmingham)
- NIHR Global Health Research Group on Global COPD in Primary Care (University of Birmingham)
- NIHR Global Health Unit in Surgery (University of Birmingham)
- NIHR Leicestrer Respiratory Biomedical Research Unit (Nottingham University Hospitals NHS Foundation Trust and the University of Nottingham)
- NIHR Nottingham Biomedical Research Centre (Nottingham University Hospitals NHS Foundation Trust and the University of Nottingham)
- NIHR Trauma Management Healthcare Technology Co-operative (University Hospitals Birmingham)
- NIHR Wellcome Trust Clinical Research Facility (University Hospitals Birmingham)
- Nottingham Health Science Biobank (NHSB) (Nottingham University Hospitals NHS Trust)
- Phenome Centre Birmingham (University of Birmingham)
- Precision Medicine Institute (University of Leicester)
- Royal Centre for Defence Medicine (University Hospitals Birmingham)
- Science, Technology andPrototype Centre (Black Country LEP)
- Tommy’s National Centre for Miscarriage Research (University of Birmingham and Birmingham Women’s & Children’s Hospital)
- Transplant Unit Cardio-Thoracic, Liver, Kidney (renal), and Intestinal (University Hospitals Birmingham)
- Transplant Unit Kidney (renal) (City Hospital, Nottingham)
- Transplant Unit Liver (Birmingham Children’s Hospital)
- UK’s National Sperm Bank (Birmingham Women’s Hospital)
- West Midlands Genomics Medicine Centre (University Hospitals Birmingham)
- West Midlands Regional Genetics Laboratory (Birmingham Women and Children’s Hospital)
Trauma & Defence Medicine

The Midlands Engine is the UK’s centre for Trauma & Defence Medicine

The Midlands Engine is the UK’s centre for Trauma & Defence Medicine, with the tri-service Royal Centre for Defence Medicine (RCDM) located at University Hospitals Birmingham NHS Foundation Trust in Birmingham, and the Headquarters of the Surgeon General together with the Joint Medical Command recently established at Lichfield. Completing the region’s unparalleled expertise, The Defence and National Rehabilitation Centre (DNRC) will also soon be located on the Stanford Hall estate near Loughborough.

Major Trauma - Civilian

University Hospitals Birmingham (UHB) - Major Trauma & Critical Care

University Hospitals Birmingham (UHB) has the largest single site Critical Care Unit in Europe, with 100 bed spaces in the Queen Elizabeth Hospital Birmingham. The Trust is a specialist provider of a wide range of disciplines, including neurosurgery, burns, plastics, liver surgery, oncology, cardiac surgery, organ retrieval and transplantation, dermatology, maxillofacial, renal surgery, stroke, vascular surgery, urology and therapy services. The Critical Care Unit supports UHB as a Major Trauma Centre. It has a strong working partnership with the Royal Centre of Defence Medicine and has military personnel fully integrated within the Critical Care Unit and throughout the hospital to treat both servicemen and women and civilian patients.

Orthopaedics - Civilian

National Spinal Injuries Centre (NSIC) - Stoke Mandeville Hospital

The internationally recognised NSIC has been providing acute and rehabilitation care for patients with spinal cord injury since its founding in 1944. Patients are referred from all over the UK and from many countries around the world. The National Spinal Injuries Centre at Stoke Mandeville became the first unit in the UK to achieve international CARF accreditation for excellence in the care of adults and children with spinal cord injury in 2011. The NSIC’s paediatric service, among the first in the country, becomes the only children’s spinal injury service to be recognised with CARF accreditation outside of North America.

The Robert Jones and Agnes Hunt Orthopaedic Hospital NHS Foundation Trust (RJAH)

The Robert Jones and Agnes Hunt Orthopaedic Hospital is one of the leading orthopaedic centres of excellence. A specialist hospital with a reputation for innovation, the Trust provides a comprehensive range of musculoskeletal (bone, joint and tissue) surgical, medical and rehabilitation services; locally, regionally and nationally. A leading UK centre for production of stem cells under GMP to provide Cell therapies to repair damaged joint cartilage. RJAH is a founder member of the Specialist Orthopaedic Alliance (SOA).

The Royal Orthopaedic Hospital NHS Foundation Trust

The Royal Orthopaedic Hospital is one of the largest specialist orthopaedic units in Europe. Providing planned orthopaedic surgery to people locally, nationally and internationally. The Trust offers planned specialist care for all of the orthopaedic subspecialties, from elective arthroplasty for local patients, through to regional and supra-regional services (for example in spinal surgery and oncology).

University Hospitals of North Midlands – MTC

The high performing Major Trauma Team at UHCM have recently won a national Trauma Audit and Research Network (TARN) award for their work on rebuilding people with lower leg trauma. UHCM were named as the joint winners for the way patients with open wound fractures of their lower limbs are treated. Their Pathway changes mean that 70% of patients will be operated on, including plastic surgery to seal the wound, within 72 hours of injury, beating the national average of 45%.

University Hospitals of North Midlands – MTC

The UHNM Major Trauma Centre is built on a long history of trauma care at the hospital, they have one of the best survival figures in the country and treat patients with life altering injuries on a daily basis. UHNM sees over 1,000 patients who have suffered a significant injury every year, providing care to a population of approximately 2.25 million, covering the North West Midlands and North Wales.

Birmingham Children’s Hospital - Paediatric MTC

The Paediatric Major Trauma Centre was opened in April 2012 and has been ranked third in the country after the National Major Trauma Network Peer Review. The specialist team, which is the only one of its kind in the West Midlands, treats over 50,000 children and young people every year from all around the UK who have suffered serious, and often life-threatening, injuries and illnesses.

University Hospitals of North Midlands – MTC

Nottingham University Hospitals NHS Trust

The University Hospitals of North Midlands – MTC was one of the best performing acute care hospital Trusts in England. The Centre performed extremely well and was the only Major Trauma Centre in the country to score 100% on Definitive Care (surgery and critical care) and Rehabilitation.

Major Trauma Centre in the country to score 100% on Definitive Care (surgery and critical care) and Rehabilitation.

East Midlands Major Trauma Centre (EMMTC) – Nottingham University Hospitals NHS Trust

Recently rated one of the best in the country, by the Major Trauma National Peer Review report, conducted by NHS England. The Centre performed extremely well and was the only Major Trauma Centre in the country to score 100% on Definitive Care (surgery and critical care) and Rehabilitation.

Major Trauma - Civilian

University Hospitals Coventry & Warwickshire - MTC

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The Midlands – The Home of Military Medicine

The centre of gravity of Defence Medicine is now firmly established in the Midlands, with the Royal Centre for Defence Medicine located at University Hospitals Birmingham NHS Foundation Trust, and the new Defence Rehabilitation Centre, to be based at Stanford Hall Estate near Loughborough from 2018. The Headquarters of the Surgeon General and the Defence College for Healthcare Education and Training are located at Defence Medical Services (Whittington), the site of the former Staffordshire Regiment Headquarters south of Lichfield. Although the Defence Medical Services, comprising personnel from the Royal Navy, Army, Royal Air Force, and Civil Service, are spread widely throughout the UK and overseas, the geographical focus of the components above consolidates the region’s position as an international centre of excellence for Defence Medicine.

Medical Directorate

The Medical Directorate is located within the University of Birmingham Research Park and is the home for military medicine Academic Departments and clinical expertise for UK Defence. The Directorate’s mission is to improve patient care within Defence through innovation, Research & Development, and Healthcare Engagement, regionally, nationally and internationally. The nine academic departments are Mental Health; Nursing; General Practice and Primary Care; Anaesthesia and Critical Care; Surgery; Medicine; Trauma & Orthopaedics; Emergency Medicine; and Military Rehabilitation. The Directorate has built a world-renowned reputation for trauma innovation following recent campaigns in Afghanistan and Iraq. Current health and health science research is focused on rehabilitation of musculo-skeletal injury; prolonged care (both pre-hospital and deployed hospital care) and military mental health.

Royal Centre for Defence Medicine (RCDM)

Established in 2001, the RCDM’s primary role is the focal point for the reception of military casualties from overseas, providing a ‘front door’ from the battlefield into the NHS.

Nested within the Queen Elizabeth Hospital Birmingham (QEHB), the RCDM supports the QEHB in its role as the principal acute receiving hospital in the UK. It does this through the provision of military manpower and specialist military expertise in order to facilitate the military patient care pathway.

This means that while the NHS leads in the delivery of the clinical capability, it benefits from the co-location of the RCDM and its ability to enhance NHS services with, for example, military focused rehabilitation and occupational health for military patients. In addition, the RCDM is able to reassign military clinical staff to assist the NHS in the treatment of military patients when required.

Ideally, care should extend beyond the patient’s immediate clinical needs. As such, the RCDM is uniquely enhanced to provide medical administration and welfare support to military patients (and their families) admitted to the QEHB. This ‘military bubble’ concept is necessary for the well-being of the military casualty and forms a key component of our duty of care to our wounded, ill and sick. It is also something that the RCDM can provide to other NHS specialist hospitals if required.

Finally, the RCDM also functions as a conventional Defence Medical Group regional hub: military clinical staff maintain their skill-sets in NHS Trusts across the UK including Birmingham, Oxford, Stoke, Nottingham, Peterborough, Cardiff and East Grinstead.

Defence College of Healthcare Education and Training (DCHET)

The Defence College of Healthcare Education and Training is based at the Defence Medical Services (DMS) Whittington near Lichfield. It delivers individual medical training and education to agreed standards and in accordance with current Defence (including Reserves & Civil Service Clinical staff) policies, on behalf of the Royal Navy, Army and Royal Air Force. It facilitates, through extensive relationships with Midlands-based and other academic institutions, all external DMS Medical Officer, General Practitioners, undergraduate Nurse and Allied Healthcare Professionals specific training and education. In addition, DCHET’s courses are distributed under licence and franchise on a global scale. This is achieved while maintaining a strong military ethos, alongside military and physical development, to deliver appropriately trained and prepared military healthcare professionals.

The education delivered by DCHET supports military operations worldwide, and the effects of its training have seen a positive impact on operational effectiveness.

Providing 127 different courses to 8,600 students each year, DCHET is as unique is it is diverse. DCHET delivers over 40,000 high quality training days annually, facilitating training in a professional, safe and compliant environment, which instills in its students a confidence in both their training and themselves and, most importantly, an ability to deliver high levels of care wherever and whenever they are required to do so.

Defence and National Rehabilitation Centre

The DNRC programme is the late Duke of Westminster’s vehicle to deliver his vision of a pan-Government rehabilitation capability for Defence and the Nation, through the Black Stork Charity, on the Stanford Hall Estate near Loughborough. The establishment of the Defence component of the DNRC will provide a state-of-the-art facility that will ensure the continued provision of world-leading rehabilitation for our sick and injured Service personnel. The Defence facility will open in 2018 when it will become the new home of the Defence Medical Rehabilitation Centre, currently based at Headley Court, Surrey.
Clinical Trials, Testing 
and Research

Clinical Services, Activity and Facilities

Midlands Engine NHS Trusts conduct a wide range of research work on behalf of and in association with industry. Last year regional health organisations conducted over 3,785 portfolio studies with 110,491 patients and this does not include the direct commercial work that was performed for companies.

Research undertaken for industry takes various forms related to patient care, outcomes and service delivery. These studies and trials can be: Clinical Trials of an Investigational Medical Product (CTIMPs) from phase I to IV, Human Factors Studies, Human Tissue Studies: tissue sample studies including the 100K Genome Project, Questionnaires and other Qualitative Studies, through to Research Database Studies such as de-nominated NHS patient data via specialist NHS centres such as the Clinical Research Informatics Unit; Data to Knowledge Unit (including the advanced IT link between the University of Leicester and UHL facilitating the utilisation of patient information for research).

Whilst the majority of the trials conducted within Midlands Engine Trusts are for Pharmaceutical Studies there is a growing activity in Clinical Evaluation and Human Factors work for medical devices, technology and systems by the Centre for Healthcare Technology Assessment (CHEATA), Nottingham and the recently created Medical Device Technology Evaluation Centre (MD-TEC), Birmingham who lead much of this work and activity together with many of the larger national and regional NHS Trusts.

Midlands Engine NHS Centres

The 100+ Midlands Engine NHS centres that provide commercial research services also have a plethora of facilities in which to support and facilitate their investigations and trials from: Imaging (MRI Scanning to Dexe Scanning), Laboratory Work (Histology, Pathology etc.) to Data Analysis and Health Economics. There are also 46 regional CCG (Clinical Commissioning Groups) that are conducting community delivery based studies - the majority of which are portfolio work but some of these are engaged in commercial studies.

Leicester Bone Bank

Leicester Bone Bank is the only tissue bank which stores and supplies bones and other tissue to transplant surgeons all over the United Kingdom as well as for research. It is now the largest NHS hospital based tissue bank in the country. They collect bones from many hospitals across the country and supply surgeons throughout the UK and are regulated by the Department of Health’s Human Tissue Authority.

100K Genome Project

Midlands Engine Trusts have intensely embraced this UK project which will sequence 100,000 genomes from around 70,000 people. The aim is to create a new genomic medicine service for the NHS and transform the way people are cared for - Stratified / Personalised Medicine.

Transplant Units

There are three specialist Transplant Units within the region these are: Queen Elizabeth Hospital, Birmingham - Cardiothoracic, Liver, Kidney (renal) and Intestinal; Birmingham Children’s Hospital - Liver and City Hospital, Nottingham - Kidney (renal). These centres engage in various aspects of research in relation to the safe removal (harvesting), transportation and transplantation of these organs and tissue.

The Anthony Nolan Cell Therapy Centre

The Anthony Nolan Cell Therapy Centre is based at the Clifton Campus of Nottingham Trent University. The Centre processes and stores cord blood for national and international clinical transplantation centres. The centre also carries out world-class research using blood of non-clinical standard, and supplies cord blood to other approved research programmes throughout Europe.

CRO’s & Product Testing Facilities

There is a significant array of Clinical Research Organisations (CRO’s), product testing facilities and regulatory affairs organisations within the Midlands Engine region to meet any life sciences organisations’ manufacturing or regulatory requirements; from materials and product testing to drug discovery and testing; and from laboratory to 1st in man clinical trials to provision of completed regulatory certification.

Many of the Midlands Engine companies that support, facilitate and service the Life Sciences sector with testing and clinical trials for validation and certification are listed below. These services can work with local regulatory experts and national bodies to provide the legal requirements to market products within the UK, Europe, USA and elsewhere within the world. The Midlands Engine companies, when collectively the equal large number of University, NHS and hospital based trials and testing facilities, with additional healthcare and clinical industry related services.

Clinical Trials

The Midlands Engine is driving up business innovation and improving productivity and competitiveness. Our Universities and businesses work together to bring forward innovations that support our key sectors and their supply chains.

Regional NHS Trusts are conducting research for Blue Chip Multi-nationals together with leading national, international and European companies such as:

- AbbVie
- Abbott
- AstraZeneca
- Baxter Healthcare
- Bayer
- Boehringer Ingelheim
- Boston Scientific
- Bristol Myers Squibb
- Celgene Corporation
- Diaceutics
- Eli Lilly
- Genentech
- Gilead
- GSK
- Hoffman-La Roche
- INC Research
- Intel
- Janssen-Cilag
- Medimmune
- Medtronic
- MSD
- Novartis
- Novo Nordisk
- Onyx Therapeutics
- Parexel
- Pfizer
- PRA Health Sciences
- Roche Products
- Sanofi-Aventis
- Servier
- Shire
- Sorin
Clinical Trials, Testing and Research

147 & Rising
There are over 147 NHS based organisations engaged in clinical research, with at least 1 commercial trial or evaluation being conducted by each establishment. These organisations range from Acute to Community Care through to the specialist Hospitals and 60 Multi Specialties (Women’s, Dental, Orthopaedics and Trauma).

0.5m Students
Over 0.5 million students are taught by the 27 Universities within the Midlands Engine. 25 Universities provide Medical and Life Sciences Courses, with 20 courses training health professionals (Doctors, Nurses, Midwives, Professions Allied to Health) and 5 suffering studies in Health & Social Care. 7 Schools of Medicine possibly the greatest density of Medical Schools in the UK. A rich source of talent.

130 / 50
There are 130 Hospitals and 50 NHS Trusts within the Midlands Engine region. With a number of Specialist Trusts such as the Womens (1 of only 4 in England) who also host the UK’s National Sperm Bank, a modern, NHS based, fully-integrated donor recruitment, screening and banking centre to meet all donor sperm requirements.

Clinical Trials Strength
The Midlands strength lies in the spectrum of research undertaken in the region and the opportunities that exist for collaborations. The region’s unique infrastructure offers an integrated research and innovation platform that spans discovery, development, validation, clinical implementation and ultimately evaluation, making the Midlands the go-to location for accelerated execution and adoption of clinical trials. The Midlands has one of the largest and most stable and diverse populations in the UK with a demographic mix that gives the region an unrivalled patient catchment area making it an unparalleled clinical research base for Life Sciences businesses.

Thus the large stable population (multiple generations of key ethnic groups) provides an ideal living laboratory for supporting translational medicine and, more widely, the balance of market push and pull that keeps Life Sciences innovation relevant and applicable.

Medical Supply Chain

22 & Growing
With changes to the Medical Devices Regulation and GMP there is growing demand and requirement for Regulatory matters and approvals. All the professions that assist companies to bring their products to market and maintain market share are here: from Reg Affairs, IP, Lawyers & Insurance Firms to Thrombosis, Marketing, Analytics, PR and Sales, everything needed to ensure success.

19,000 Staff
19,000 people employed in the Midlands are engaged in Life Sciences, just over 10% making us the 2nd largest employer of MedTech staff in the UK. The breadth of employment and range and number of regional University graduates indicates the exceptional opportunities available to support the entire supply chain. For R&D and manufacturing as well as businesses requiring professional consultancy support.

775m Long Trains
Logistics and shipping into and across the UK is being super enhanced. East Midlands Gateway project will provide a Strategic Rail Freight Interchange which will accommodate up to 6 million sq ft of new distribution and storage buildings. Built next to the UK’s only 24 hour Air Freight Terminal Airport with links to the motorway network with the ability to ship goods anywhere in the UK.

Supply Chain Strength
Through the diversity of Life Sciences businesses from MedTech, Diagnostics, Biotech and Pharmaceutical there has developed an equally diverse and adaptable supply chain, this is further enhanced by the academic research bases not only within the Life Sciences sector per se but within the Engineering, Sciences, Computing and Business Schools. The broad diversity of companies in the region are also a magnet to attract and retain high paid, qualified staff through broader career opportunities with concomitant benefit to the regional economy. This diversity of companies also provides sustainability in the sector as it is not dependent on one principal company and prevents susceptibility to any impacts on the regional economy by a loss of any major player. The region is particularly well placed to take advantage of the trends towards outsourcing which is reflected in the Midlands Engine’s strengths in its service and supply chain across the pharmaceutical, biotech and medical technology sectors. The long medical technology heritage of the region also makes us well prepared for the challenges of escalating regulatory requirements within the medical sector.
Trading Stories
Highlighting the strength of our supply and distribution chains

The Midlands Engine Region

The Midlands has been conducting International Trade since the birth of the Industrial Revolution, with the establishment of 1000 trades in Birmingham and the world’s Capital of Lace production in Nottingham in the 19th and 20th Centuries resulting in its products being exported all over the world. These amongst the other trades resulted in the rise of multiple design and engineering skills which are growing and flourishing today.

In fact last year these activities were shown to be driving growth in inward investment, with the World’s Most Competitive Cities Report 2015 ranking Birmingham as the highest performing city in Western Europe for its competitiveness in attracting inward investment, comfortably beating cities such as Barcelona, Berlin and Dublin, an accolade which we hope will surprise many. It also ranked number 1 for machinery & equipment, number 3 for electronics and number 2 for transportation and logistics; highlighting the strength of our supply and distribution chains within the Midlands Engine.

Businesses based here in the heart of the UK - the Midlands Engine is delivering the power for trade and export whether that evolves from OEM manufacturing, sub contracting, value adding or straight trading and shipping. All the support, services and space requirements are here close to hand to succeed, as can be seen from our Trading Stories.

International Vitamin Corporation (IVC)

International Vitamin Corporation (IVC) is a world-renowned vitamin and food supplement company with regional headquarters in China, the USA and now since late 2016 in the United Kingdom. IVC is the parent company of the UK’s leading manufacturer and distributor of vitamins, minerals and food supplements (VMS) which is made up of two major divisions, Contract Manufacturing and Branded.

In Swadlincote, Derbyshire, IVC Brunel Healthcare Manufacturing is the UK’s largest manufacturing facility of VMS, having recently expanded to facilitate ongoing international growth. New and ongoing funding allowed the company to continue with their manufacturing expansion programme by adding an additional 110,000 sq ft manufacturing site which has already led to the creation of over 100 new jobs in the last 2 years across the Midlands. Their new state of the art packing site includes: 7 automated bottle packing lines, 4 automated blister packing lines, and a 1 roll-wrap line.

The branded division based in Kings Norton, Birmingham, includes BioCare® Ltd and Natural Wellbeing Ltd. The brand portfolio is headed by BioCare® which has been the brand of choice for UK professionals for over 30 years. Alongside BioCare®, the other brands in the portfolio ensure the entire customer demographic, catering for mass and niche markets, is covered and the division now export to over 70 different countries.

The V&C Group is increasing exports and launching new product lines under its four operating companies: BioCare®, Natural Wellbeing, IVC Brunel Healthcare Manufacturing and Max Healthcare.

3M

Relocating within Midlands Engine

3M believes that 2017 is the right time to move their 170 people based in Loughborough to new premises that reflect the company’s position as a global, science-based technology company and that can support its future growth and development plans.

“3M remains committed to Loughborough as the centre of its UK health care business and we are excited about moving to a new location with upgraded facilities in line with our current and future business needs.”

The move marks the first of a two-phase project to enhance 3M’s operations in Loughborough. Phase two will see the relocation of its Research & Development (R&D) Laboratories, currently housed on the Derby Road site, to the Charnwood Campus during Quarter 3, 2018.

Gosia Khoais, commercial and marketing director for Charnwood Campus said, “Charnwood Campus is delighted to welcome 3M as a future occupier of the site. This reinforces our position within the life sciences sector and strengthens the offering as a world-class R&D base.”

3M will continue its manufacturing and distribution operations at the company’s Derby Road site, where more than 600 people are based. The site produces drug delivery systems and medical products. The site has benefitted from significant investment in recent years to provide extra capacity to support the growth of its branded and generic product portfolios and is an integral part of 3M’s global supply chain organisation.

3M produces drug delivery systems and medical products, and Loughborough is an integral part of 3M’s global supply chain organisation.”

IBSL (UK) Ltd

Italian company Ingegneria Biomedica Santa Lucia S.p.A, a sociounico (“IBSL SpA”) and IBSL (UK) Ltd have formed a partnership with University Hospitals of Leicester NHS Trust, a first for the NHS, and will completely transform the way the hospital stores, tracks and administers drugs to their in-patients.

IBSL robots will pack drugs into individual doses and barcode them for nurses to ensure the right patient gets the right drug. This new system will bring about huge benefits for patients and staff, reducing errors and wastage and allowing more time for patient care. The system will help Leicester’s Hospitals improve care and reduce harm. The results from both a qualitative and quantitative perspective have been very positive and the plan is in action to roll out across the whole Trust covering Leicester Royal Infirmary, Glenfield Hospital and Leicestert General Hospital.

Paolo Gaglio, a director of IBSL (UK) Ltd, said: “This is a very important project for IBSL, and we are convinced that in tandem with the Hospitals and their key stakeholders, the project, through an innovative use of software and robotics, will introduce change for the better. IBSL is grateful for this opportunity to work with University Hospitals of Leicester NHS Trust and its dedicated, visionary and professional team of individuals”.

The unit dose laboratory at the Leicester General Hospital was formally opened by His Excellency, Pasquale Terracciano, Italian Ambassador to the UK, January 2015 in presence of the Trust Chairman, Mr Karanjit Singh.

£200bn+
Midlands Engine economy

With an economy worth more that over £200 billion generating 13% of the UK’s Gross Value Added (GVA), the Midlands Engine is at the heart of growth.
Trading Stories

The Binding Site

With its origins in the Medical School, at the University of Birmingham, The Binding Site is now one of the largest independent providers of in vitro diagnostic tests and equipment in the U.K. Exporting more than 90 percent of its products overseas, it is the world leader in special protein testing.

Today, The Binding Site employs more than 800 people across all major markets worldwide, with offices in the U.K., U.S., Belgium, the Czech Republic, France, Germany, Italy and Spain.

The Binding Site’s focus is on certain blood cancers and disorders of the immune system. Managed from its Birmingham HQ, the company continues to have strong links with the University of Birmingham and other local research centres, as well as Universities and research institutions in dozens of countries around the globe.

Binding Site is the world leader in diagnostic testing for the blood cancer, Multiple Myeloma. Its highly specific and sensitive polyclonal test, Freelite© is used to accurately detect the blood cancer, Multiple Myeloma. Its highly specific and sensitive polyclonal test, Freelite© is used to accurately detect the blood cancer, Multiple Myeloma. It now offers a menu of over 200 diagnostic assays across a range of clinical disciplines, with major success in various enterprises for over 50 years, with major shares in the procedure pack markets globally.

Their commitment to supporting product development is exemplified by their continuous materials and process innovation. In house development, ongoing at any one time, though one recent highlight was the company’s selection as the Diagnostic collaborator for a population-wide screening study, the first of its kind, in Iceland starting this year. The StopMM (Iceland Screen) Treats or Prevents Multiple Myeloma trial is considered a pivotal trial in the understanding of this currently treatable but incurable disease.

The Binding Site is represented in over 100 countries, with an annual turnover exceeding £80m.

Kimal

An innovative and trusted developer and manufacturer of vascular access devices and procedure packs for use across a range of clinical disciplines, Kimal have had success in various enterprises for over 50 years, with major shares in the procedure pack markets globally.

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Quotient Sciences

Quotient Sciences is a drug development services provider to the pharmaceutical industry, focused on helping clients reduce the time and cost of bringing a drug to market. From headquarters in Rudlington on the outskirts of Nottingham, the company has rapidly grown over the last 10 years and now operates from five sites, employing over 600 staff from state-of-the-art manufacturing and clinical facilities in the UK and USA.

Quotient’s units conduct clinical testing on healthy volunteers (Phase 1 trials) rather than patients, enabling the business to work on molecules across many therapeutic areas. However Quotient’s real ongoing global success and growth has been built around the development of their pioneering Translational Pharmaceutics approach, which spans across the conventional pharmaceutical outsourced market, integrating drug formulation development, GMP drug manufacturing and clinical pharmacology services.

The company began life as Pharmaceutical Profiles, a spin-out from the University of Nottingham led by Professor Bob Davis, Dr Ian Wilding and Dr Steve Newman 25 years ago. In 2004 with the backing of an equity company a more robust platform for the business to drive growth was created. This development led to the evolution of Quotient’s competitive advantage; Translational Pharmaceutics.

A very successful period of rapid expansion and growth followed but with global ambition Quotient needed fresh investors if it was to build the business to the States following a new equity backer. In 2015 GHO Capital, familiar with the US market, replaced Bridgepoint. In February 2017, Quotient acquired Seaview Research, a Clinical Research Organisation (CRO) in Florida and QS Pharma, a Contract Development Manufacturing Organisation (CDMO) in Philadelphia.
Life sciences space opportunities

The Midlands is home to the largest number of medical technology companies in the UK and is the second largest clinical trials base in Europe, boasting a wide network of science and Medipark research, innovation, incubation and development facilities. The Midlands is at the heart of the national road and rail network with international connectivity for both passengers and freight through excellent rail and airport hubs. The region is ideally placed to capitalise on its ‘ecosystem of assets’, creating a world class resource for the life sciences industry. Its ambitious universities and hospitals, with active private sector businesses and support infrastructure, work in close collaboration to create opportunities for the dynamic global health and life sciences industry. The availability of land and development opportunities makes life sciences market entry more readily accessible and economically attractive than in other regions in the UK. Furthermore, the Midlands has all the elements already in place for the growth of its successful life sciences cluster:

- Medical and academic excellence
- Knowledgeable and collaborative skills base
- Local and national government support
- Public/private sector collaboration
- Financial and business support
- Commercial space to grow
- Lifestyle infrastructure and green space
- An established supply chain network
- Outstanding regional, national and international transport links
- A large, ethnically diverse and stable population

The region has a demonstrably strong and effective collaboration between academia, business and clinical communities, coupled with extensive clinical and life sciences incubators and Medipark research facilities, making it an ideal life sciences business location.

**Life sciences space opportunities**

**1. Keele University Science & Innovation Park**
A fully integrated innovation campus with global leaders in medical technology and healthcare with a further 70 acres under development which will provide access to translational and clinical science for life sciences companies.
T: 01782 734496 | E: m.hornby@keele.ac.uk | W: www.ksip.co.uk

**2. Edgbaston Medical Quarter (EMQ)**
EMQ has evolved into a collaborative cluster and international destination for healthcare, life science and medicine. Home to over 65% of the city’s healthcare economy, it offers an unparalleled blend of existing medical buildings to new build / development opportunities.
T: 0121 248 7676 | E: enquries@calthorpe.co.uk | W: www.calthorpe.co.uk/emq

**3. MediCity Nottingham**
MediCity Nottingham is based in the Enterprise Zone on the Alliance Boots campus. MediCity Nottingham occupies 100,000 sq ft in the iconic art-deco Dock Building. The building also has impressive conference facilities and hosts big events connected to health, beauty and innovation.
T: 0115 784 0000 | E: enquries.nottingham@bioscy.co.uk | W: www.bioscy.co.uk/mediity/nottingham

**4. BioCity Nottingham, Discovery Building**
Based in the Creative Quarter, BioCity, Nottingham is the first BioCity site and is now home to over 70 companies. The recently opened Discovery Building’s 50,000 sq ft high tech biology and chemistry laboratories and office space supports more than 700 new biotechnology roles in Nottingham over the next 30 years.
T: 0115 828 5754 | E: enquiries.nottingham@bioscy.co.uk | W: www.bioscy.co.uk/discovery

**5. Lincoln Science & Innovation Park**
LISP provides world-class facilities centred around the University of Lincoln’s main research laboratories. Offices, laboratories and technical workshops from 400 sq ft to 5,000 sq ft are available to innovation led firms. Space can be rapidly reconfigured to grow with your business or built to bespoke specification.
T: 01522 437101 | E: enquiry@lincolnsciencepark.co.uk | W: www.lincolnsciencepark.co.uk

**6. National Centre for Rural Health and Care**
The National Centre for Rural Health and Care responds to the challenges facing the provision and receiving of health & care in rural settings. It brings together the NHS, social care, academia, voluntary sector and industry to improve patient outcomes and create commercial opportunities.
T: 0115 7484244 | E: mike.smyth@nottingham.ac.uk | W: www.emahsn.org.uk

**7. Hagley Road, Edgbaston**
Hagley Road offers a range of landmark office and medical space. It includes the new major 11 acre mixed-use development named New Garden Square.
T: 0121 248 7676 | E: m.long@calthorpe.co.uk | W: www.calthorpe.co.uk

**8. Pebble Mill Building**
Pebble Mill is home to the Dental Hospital & School of Dentistry, it will soon be joined by a Bupa care home and Circle Health private hospital. The remaining plot has approval for a 53,800 sq ft prestigious medical hub.
T: 0121 248 7676 | E: mike.smyth@nottingham.ac.uk | W: www.pebblemillbirmingham.co.uk

**9. The BioHub Birmingham**
The BioHub Birmingham is a purpose-built fully equipped life sciences incubator. It provides dedicated bench and desk space at an inclusive flat monthly rate. Residents can access the equipment and expertise of the University of Birmingham, and its business incubator.
T: 0121 414 9252 | E: thebiohub@contacts.bham.ac.uk | W: www.thebiohub.co.uk

**10. Institute of Transitional Medicine (ITM)**
ITM, a new world class clinical research facility in Birmingham, makes it easier for both SME and large pharma and biotechnology firms to work more closely with clinicians and academics, to bring additional investment into the city.
T: 0121 371 8804 | E: K.Fletcher@bham.ac.uk | W: www.itmbirmingham.co.uk

**11. Charnwood Campus**
Charnwood Campus is the UK’s first Life Sciences Opportunity Zone in the heart of the UK. Loughborough based science, technology and enterprise park offers world class flexible laboratories, specialist manufacturing facilities and small and large office space with a wide range of amenities, technical and clinical resources that meet the diverse needs of businesses, additionally benefiting from the site’s Enterprise Zone status.
T: 0116 402 7541 | E: info@charnwoodcampus.com | W: www.charnwoodcampus.com

**12. Defence & National Rehabilitation Centre (DNRC)**
The Defence Medical Rehabilitation Centre (DNRC) will provide a state-of-the-art facility that will ensure the continued provision of world-leading rehabilitation for sick and injured service personnel. The facility will open in 2018 when it will become the new home of the DNRC, currently based at Headley Court, Surrey.
T: 0845 204 3080 | E: info@thednrc.org.uk | W: www.thednrc.org.uk
The future & in progress

Science and Business space opportunities

The Midlands is the place to do business. It has a proud legacy at the heart of global manufacturing and supply chain excellence across many industry sectors such as automotive, aerospace and medical technologies, and is renowned as an international centre of finance and business excellence.

The region has an established research & development and supply chain infrastructure, ready to lend its skills and experience to creative life sciences ventures.

The region boasts cutting edge high technology research facilities and technology parks not only in life sciences and medical research, but also in pharmaceuticals, digital, creative, aerospace, automotive and military sectors, to name but a few.

Hosting many of the UK’s leading research and technology facilities, these established networks of science parks, incubators and growth accelerators offer unbeatable access to high tech facilities and skills coupled with a strong business support infrastructure.

These existing facilities alongside the availability of ‘grow on’ space and a large, flexible skilled workforce, makes the Midlands the ideal choice for business growth.

£200 bn + Midlands Engine economy

£200+ billion economy of the Midlands Engine is larger than countries such as Ecuador, New Zealand and Croatia.

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**Oswestry Innovation Park - a Greenfield Site**

This Oswestry Greenfield site opportunity has huge potential as a major new landscaped business park up to Thr of offices, laboratories or light industry, and is in close proximity to the Robert Jones & Agnes Hunt Hospital, a major Orthopaedic and Regenerative Medicine centre.

T: +44 (0)1743 257777 | E: me@mphsp.co.uk
W: www.mhsp.co.uk

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**Nottingham Science Park - Enterprise Zone**

Nottingham Science Park (NSP) is situated on a site of some 27 acres and comprises a long established science park specialising in research and technology, providing a diverse range of accommodation from high quality offices / workspace to award winning Grade A offices set within a landscaped campus style environment.

T: 0115 9239 763 | E: dwoods@innes-england.com
W: www.nottinghamsciencepark.co.uk

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**Longbridge Technology Park**

Longbridge offers an ideal location for a range of high-tech, manufacturing and R&D companies in Grade A offices. Scope for further design and build to include flexible industrial and warehousing is available, all surrounded by new vibrant retail and leisure space.

T: 0121 233 5555 | E: technology@longbridgebirmingham.co.uk
W: www.longbridgebirmingham.co.uk/business/technology-park

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**Science, Technology & Prototyping Centre**

Unrivalled specialist facilities for scientific based SME businesses. Their new state-of-the-art facilities provide a unique combination of laboratories, workshops and office space, combined with access to world-keeping research and on-site business support to enhance development activities.

T: 01902 321914 | E: joinus@sciencetechcentre.co.uk
W: www.sciencetechcentre.co.uk

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**University of Warwick Science Park**

The Science Park offers office and lab space in 4 locations across the West Midlands, varying from 9 sqm starter units to large self-contained units up to 1,400 sqm in 24 different buildings.

T: 024 7632 3000 | E: more-info@uwsp.co.uk | W: www.warwicksciencepark.co.uk

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T: 0121 233 5555 | E: technology@longbridgebirmingham.co.uk
W: www.longbridgebirmingham.co.uk/business/technology-park

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**Fagans, Telford**

Providing room for expansion to start-ups, growing businesses and large companies, the Science Park offers office and lab space in 4 locations across the West Midlands, varying from 9 sqm starter units to large self-contained units up to 1,400 sqm in 24 different buildings.

T: 024 7632 3000 | E: more-info@uwsp.co.uk | W: www.warwicksciencepark.co.uk

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**MALVERNS, Himley, Worcestershire**

Malvern Hills Science Park is a 1.5 million sq ft technology park located adjacent to Junction 2 of the M5. Significant occupants include: MTC, HTMC, The London Taxi Company, FANUC, Sainsbury’s and AVL. Design and build opportunities are available on the remaining land.

T: 0115 923 9571 | E: Steve.holland@pacs.gi.gov.uk | W: www.annsypark.co.uk
### Travel & Location

#### Rail

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#### Air - International Travel

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<th>Air - International Travel</th>
<th>Birmingham</th>
<th>East Midlands</th>
<th>China - Beijing</th>
<th>11Hr 55m</th>
<th>India - Delhi</th>
<th>8Hr 30m</th>
<th>Istanbul</th>
<th>4Hr</th>
<th>Japan - Tokyo</th>
<th>14Hr 45m</th>
<th>Sharm El Sheikh</th>
<th>5Hr 20m</th>
<th>Toronto</th>
<th>7Hr 40m</th>
<th>UAE - Dubai</th>
<th>7Hr 15m</th>
<th>USA - New York</th>
<th>8Hr</th>
<th>Luton</th>
<th>Tel Aviv</th>
<th>5Hr 35m</th>
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#### Air - UK and European Travel

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<tr>
<th>Air - UK and European Travel</th>
<th>Birmingham</th>
<th>East Midlands</th>
<th>Barcelona</th>
<th>2Hr 10m</th>
<th>Belfast</th>
<th>1Hr 5m</th>
<th>Copenhagen</th>
<th>1Hr 45m</th>
<th>Dublin</th>
<th>1Hr 5m</th>
<th>Edinburgh</th>
<th>1Hr 05m</th>
<th>Glasgow</th>
<th>1Hr 10m</th>
<th>Paris</th>
<th>1Hr 30m</th>
<th>Rome</th>
<th>2Hr 40m</th>
<th>Zurich</th>
<th>1Hr 50m</th>
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#### Support for Investors

The Department for International Trade (DIT) helps businesses export and grow into global markets. We also help overseas companies locate to and grow in the UK.

We can help with information on how to set up in the UK, provide sector specific information about the medical and healthcare industry in the UK, and support you to identify the right location here for you and introduce you to local partners and supply chains.

Our network of UK specialists includes a team who are based in the Midlands, providing expert local knowledge of projects, potential public and private sector partners and other local business support.

For more information on Life Science opportunities in the Midlands Engine region, please contact: midlandsengine@trade.gov.uk
The UK’s Department for International Trade (DIT) has overall responsibility for promoting UK trade across the world and attracting foreign investment to our economy. We are a specialised government body with responsibility for negotiating international trade policy, supporting business, as well as delivering an outward-looking trade diplomacy strategy.

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