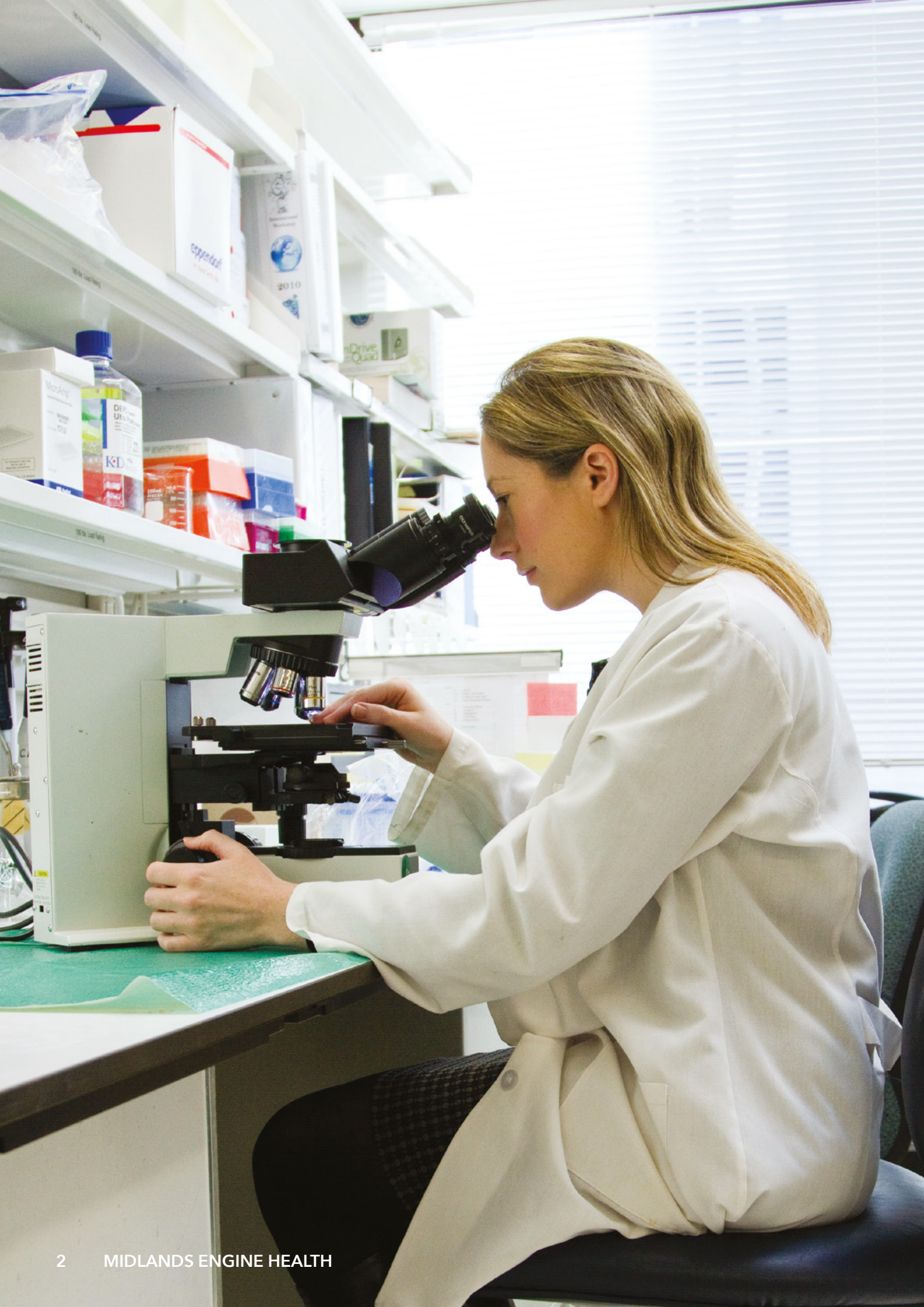




**MIDLANDS
ENGINE**

**MIDLANDS ENGINE HEALTH
A unified voice for health and
life sciences in our region**

SEPTEMBER 2021



Championing Midlands health and life sciences

Midlands Engine Health has a vital role to play in championing and amplifying our region's unique sector strengths to UK Government and international investors.

Together, we will capitalise on opportunities of scale, boost innovation and further accelerate the economic impact of this key sector, which generates

£26 billion each year for the economy. Health and life sciences already contribute significantly to our regional economy and to the UK. Through Midlands Engine Health, we aim to amplify our impact through partnership - presenting one unified vision of our vast sector strengths and immense potential, both within the UK and globally.



Underpinning regional economic prosperity

Sir John Peace, Chairman, Midlands Engine

"There is an overt connection between health and wider regional prosperity. The Midlands Engine works to drive economic health and therefore our work is inextricably linked to population wellbeing.

"A significant part of accelerating economic prosperity in the Midlands will also depend on how we respond to the huge opportunities available in the health and life sciences sector in our region.

"Coronavirus has reminded us all of the absolute value of good health as individuals and within communities. It has highlighted powerfully how significant the health, life sciences and medical technologies sectors are as economic cornerstones in our country.

"It is well known that there are inequalities in health across the UK; inequalities which have been exposed even further by the pandemic. The Midlands as a whole falls behind the UK average in terms of life expectancy and of course there are areas within our region that experience even greater health inequalities.

"If we are to truly level up the economy, we must also level up health and this must be part of our work to rebuild the economy post Covid-19."



Creating the compelling case for investment

Rachael Greenwood, Executive Director, Midlands Engine and Chair, Midlands Engine Health

"The Midlands is an exemplar region for health and life sciences, and home to the largest medical technologies cluster in the UK. There is a wealth of opportunities here - world-class clinical and academic capabilities and highly productive sectors, characterised by high-innovation SMEs, working at scale. But it's also a complex landscape that has not yet benefited fully from a coordinated voice - something partners across Midlands Engine have identified; the catalyst for the establishment of Midlands Engine Health.

"We have joined forces across our region to create our Midlands Engine Health partnership, with a Board comprising UK and regional leaders, internationally renowned business and clinical experts, committed to building on and demonstrating the compelling case for investment in our region. We collaborate on:

- Accelerating SME-led economic impact of health and life sciences across the Midlands
- Enhancing and sharing a compelling proposition of Midlands strengths opportunities
- Rapid acceleration of pan-regional data and intelligence
- Actively promoting regional capability and Midlands opportunities at scale
- Securing future investment in key initiatives that generate regional economic impact"



Championing our region's world-leading strengths in health, MedTech and life sciences

The Midlands is a region of pioneering minds, thriving industry, great beauty, inspiring heritage and incredible people. Our region is a place of vibrant cities, bustling towns, flourishing rural areas and welcoming communities.

The Midlands Engine convenes a wide range of partners, from small businesses and universities, to global multinationals, public sector bodies and government agencies, bringing voice and vision to the Midlands. We provide crucial focus

and connection so that, together, we can act with commitment and purpose to drive economic prosperity for the benefit of our region's people, places and future. The Midlands Engine generates added value for the whole of the Midlands, its communities and the wider UK. The approach is apolitical, focused on increasing productive economic growth and improving quality of life for communities in every part of our region.

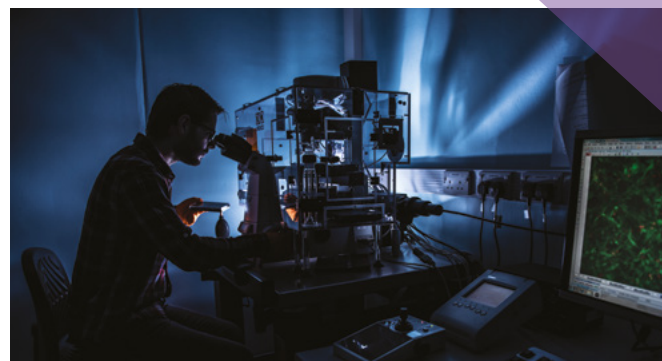
Health and life sciences in the Midlands ... at a glance

- *Sector generates £26 billion each year for the UK economy*
- *The highest number of MedTech companies of any region in the UK, generating £1.6 billion for the UK economy every year*
- *A stable, ethnically diverse population of over 10 million citizens, the ideal test bed for global health and multimorbidity interventions*
- *1,200 life sciences businesses and over 33,000 highly skilled jobs*
- *World-leading NIHR infrastructure embedded in our NHS, including the UK's largest Clinical Trials Unit, three Biomedical Research Centres, two Applied Research Collaborations, the Centre for BME Health, the School for Primary Care Research and one of only five UK Patient Recruitment Centres*
- *Seven leading Medical Schools, producing over 20% of the UK's medical students*
- *Two of the three largest UK NHS Trusts*

A unified voice for our region's exceptional sector strengths and phenomenal potential

The Midlands Engine Partnership has identified health, MedTech and life sciences as a priority area for our region as the UK and Midlands economy looks to build back stronger, better and greener after the Covid-19 crisis. The Midlands is an exemplar region for health and life sciences, and home to the largest MedTech cluster in the UK. There is a wealth of opportunities here which, through the Midlands Engine Health partnership, we will build on and demonstrate the compelling case for investment in.

Our main objective is to encourage further collaborative research excellence that will result in the practical innovations we need to address clinical and social care needs in the Midlands. By doing this, we will also increase our knowledge capital, strengthen our national and global reputation and enable resilience within the supply



chains that are so critical to our health and social care service delivery network.

Ultimately, by championing and amplifying our region's unique sector strengths to UK Government and international investors, Midlands Engine Health aims to increase the health and wealth of our region.

Amplifying our impact through partnership

Midlands Engine Health will work closely with a range of national stakeholders, such as the Department for Health and Social Care, Office for Life Sciences, UK Research and Innovation including Innovate UK, National Institute for Health Research, Department for Business Energy and Industrial Strategy, and Department for International trade. This partnership will also combine the visions of local stakeholders including local enterprise Partnerships, local authorities, universities, business representative organisations and the NHS.

Midlands Engine Health is supported by Midlands Innovation Health, a partnership between the seven Midlands Medical and Healthcare Schools, and Midlands Health Alliance, a regional health research collaboration embedded in the NHS.

The impacts we will work together to achieve are:

- *Accelerating the economic impact of the MedTech and wider health and life sciences agenda across the Midlands*
- *Supporting our region's academic and clinical partners to continue to deliver world-leading research in health and life sciences*
- *Promoting the important role that the Midlands can play in the UK Life Sciences Industrial Strategy and other MedTech and health initiatives that may occur in the post Covid-19 environment within the Office of Life Sciences and other Government departments*
- *Amplifying the vision of the sector based on the latest data and intelligence from within our region, including from the Midlands Engine Observatory*
- *Showcasing regional excellence and capability at scale, including providing a platform for visibility within Government policy and investment*
- *Securing future investment into key initiatives that generate greater health and economic impact in the Midlands*

Midlands core strengths and ambitions

Our region excels within five core strength areas in health and life sciences

Medical technologies

The home of MedTech innovation

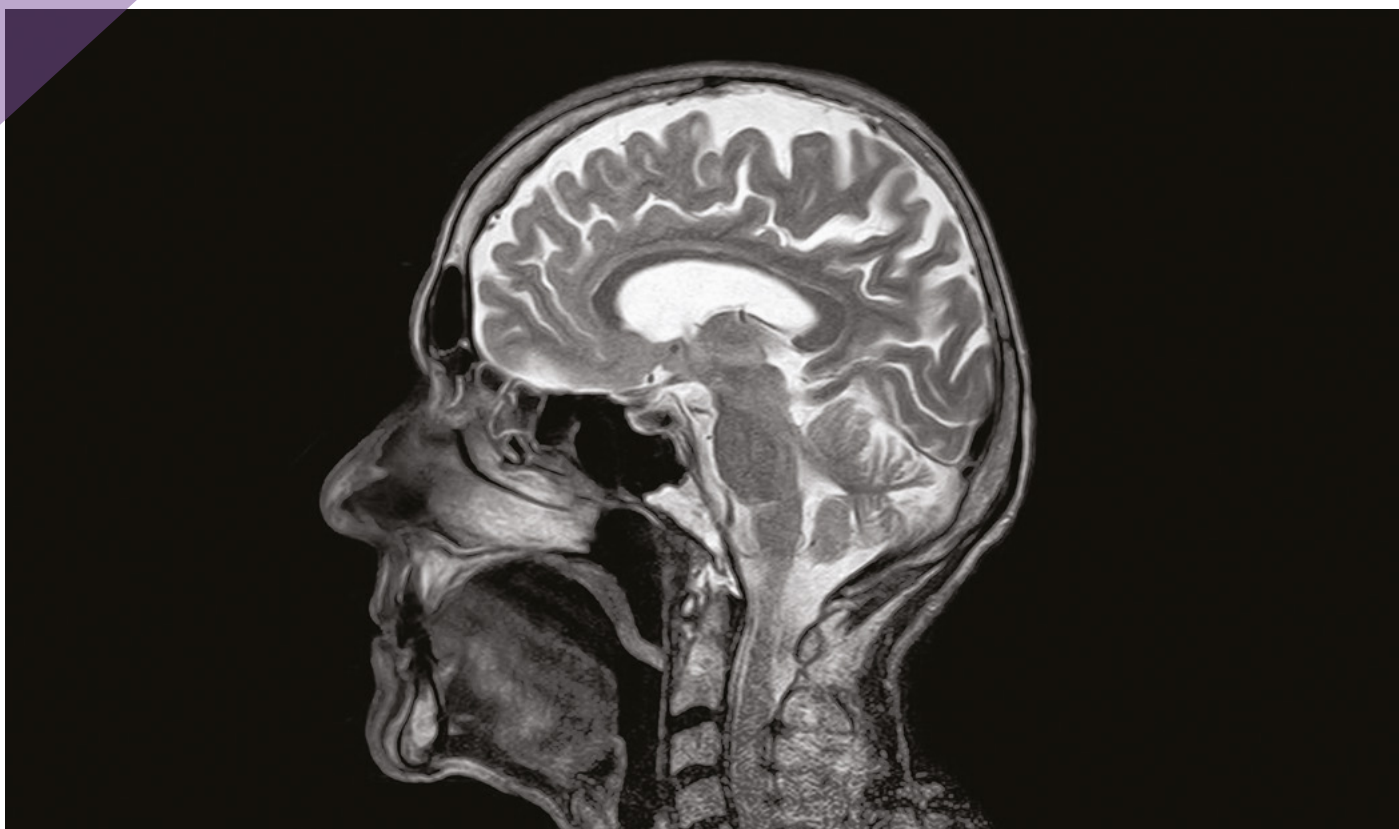
The Midlands hosts the UK's largest cluster of MedTech companies, generating £1.6 billion for the UK economy each year. We attract global companies to relocate here through our distinctive NHS-partnering ecosystem, cutting-edge facilities and world leading expertise, as well as two Life Sciences Opportunity Zones. As the birthplace of magnetic resonance imaging (MRI) and the pioneering use of X-ray, the Midlands continues to lead the fields of medical imaging and radiology.

Ultra High Field Imaging - Pioneering imaging technology in partnership with industry

The Midlands is at the international forefront of pioneering translational imaging research. We aim to become the home of ultra high field imaging for clinical and research use and to have the UK's first 11.7T MRI facility. Higher magnetic fields have the potential to deliver far greater diagnostic detail for patients.

National Centre for Regulatory Science - Internationally leading cluster of excellence for regulatory science

The UK regulatory framework and the expertise that supports its development have for many years been at the forefront of forming international regulatory and standards policy. As we enter the new global, post Covid-19 market, the UK must leverage and enhance its leadership position. Linking to the nationally recognised Centre for Regulatory Science and Innovation in Birmingham, we aim to cement the Midlands as the leading UK region for regulatory science, supporting innovative businesses and accelerating benefits for patients.



Midlands Life Science Manufacturing Hub

- Championing the Midlands life sciences manufacturing capability

The Midlands is the UK's manufacturing heartland, combining life sciences excellence and MedTech expertise. Using assets such as the Medical Technologies Innovation Facility, the Midlands is the ideal home for the UK's Life Sciences Manufacturing Hub. This initiative supports the Government's levelling up agenda, improves domestic supply chain resilience, creates new jobs and boosts our region's post-pandemic economic recovery.

Medical Technologies Innovation Accelerator (MTIA) - Empowering our critical mass of expertise

MTIA will harness the Midlands' unique industrial base, patient population and academic-NHS innovation environment to create the UK's leading cluster of excellence for development, evaluation and adoption of MedTech.



Health diversity

Leading the understanding of health inequality and delivering inclusive research

The Midlands has an international reputation for **inclusive clinical research** excellence and world-leading academic ethnic and mental health expertise. Centres of excellence include the **Centre for BME Health**, **Keele Impact Accelerator Unit**, three NIHR Midlands Biomedical Research Centres, two NIHR Applied Research Collaborations and the **Midlands Engine Mental Health and Productivity Pilot**.

Key disease themes include diabetes, cardiovascular, inflammation, liver, respiratory, BME health and mental health.

Our strengths in this field continue to drive inclusive investigation into healthcare issues, showcased by the response to the pandemic; including partners in the Midlands being the first to highlight the relationship between ethnicity and Covid-19 clinical outcomes. This strength is particularly important in supporting the Government's levelling-up agenda and post Covid-19 economic recovery plans.

Midlands Health Inequalities Commission **- World-leading expertise to tackle local health inequalities**

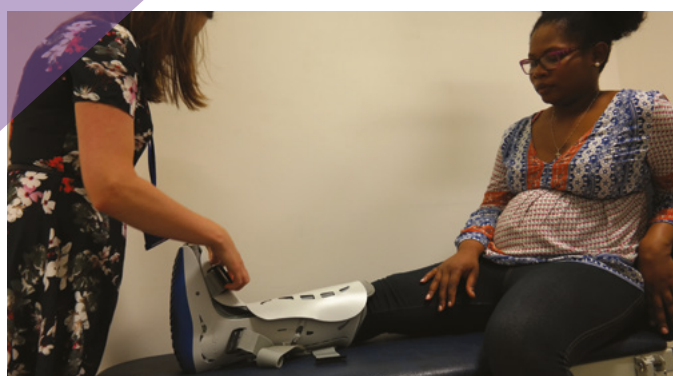
It has been forecast that the Midlands will experience disproportionately high impacts from Covid-19, the EU exit and imbalanced regional public sector investment. Therefore, we have prioritised delivery of a policy commission to: identify the critical issues underpinning health inequality; isolate those that are specific to our region; determine recommendations for change; and influence key stakeholders nationally.



Rehabilitation and trauma

Pioneering innovation to enable people's return to work and life

The Midlands is home to internationally renowned academic specialisms in the field of intensive rehabilitation, such as those within the [National Centre for Sport and Exercise Medicine](#), and NHS engagement facilitators such as the [NIHR Trauma Management MedTech Co-operative](#). Also home to the National Rehabilitation Centre, our region provides the ideal environment, infrastructure and expertise for rehabilitation-focused innovation.



Leicester and Leicestershire High Priority Opportunity - Providing innovative solutions at all stages of patient recovery

This Department of International Trade HPO aims to meet the growing national and international demand for pre-rehabilitation and rehabilitation solutions for real-world applications.

Rehabilitation of patients suffering from long Covid - Ready to lead the UK in the study and treatment of long Covid

Combining the National Rehabilitation Centre (NRC) and world-leading expertise, our region has the best opportunity to study and treat long Covid. With an investment of £20 million, the NRC can be resourced to rehabilitate patients who have suffered from Covid-19, getting them back into work rapidly by following the Ministry of Defence model which achieves seven times faster returns than found in civilian care.

National Rehabilitation Centre - Transforming specialist rehabilitation services

Our region hosts the UK's centre of excellence for rehabilitation and defence medicine - the new £300 million Defence Medical Rehabilitation Centre - and will soon house the UK's National Rehabilitation Centre for civilian care, making the Midlands the focus for vital research and development that has the power to return more people to work and life after trauma.



Health Data and AI

Reducing development time and trial costs to innovate faster

Harnessing the close relationship between our academic/clinical excellence and our region's ethnically diverse population, we deliver the unparalleled opportunity to reduce development time and trial costs, resulting in accelerated innovation for greater economic and patient benefit.

The Midlands hosts: the UK's only Centre for Patient Reported Outcomes; the Midlands Health Data Research UK Substantive Site; the Centre for Black and Minority Ethnic Health; three of seven UK Digital Innovation Hubs; and some of the UK's foremost diagnostic and experimental medicine capabilities, such as the UK's largest NHS genetics service and the Genomic Medicine Centre. All are supporting the largest cluster of digital start-ups outside London.

Birmingham Health Innovation Campus **- A world-leading life sciences campus**

Due to open in 2023, the campus will provide cutting-edge innovation facilities building on our nationally recognised strengths in healthcare data, genomics medicine and diagnostics, MedTech and clinical trials.



Clinical Trials

A proven track record of world-class delivery

The Midlands hosts significant and world-leading health research infrastructure in disease areas that are important for the nation's health such as respiratory, cardiovascular, gastrointestinal and diabetes. We are also proud of our outstanding clinical trials investigators and infrastructure that deliver a transformational approach.

By combining rapid development and delivery with the ability to leverage significant expertise, our region is a world class clinical trials environment that includes: extensive NIHR infrastructure; the world's largest precision medicine cancer clinical trials unit; two Academic Health Science Networks and an Advanced Therapy Treatment Centre. This enables the experienced delivery of adaptive trials at national and international scales.



Delivering clinical trials at scale and pace **- Supporting the next generation of vaccines**

The Midlands has a vast clinical trials infrastructure capability, including the recently funded **NIHR Patient Recruitment Centre in Leicester** (one of only five in the UK); the first NIHR-funded research facilities that are 100% dedicated to delivering commercial research. Combined with our region's impressive track record of clinical trial delivery at pace with high recruitment figures, this positions us perfectly to test the next generation of vaccines. Notably, our region aims to lead trialling and testing for groups which can't have the current Covid-19 vaccines, including pregnant women, infants and young people.

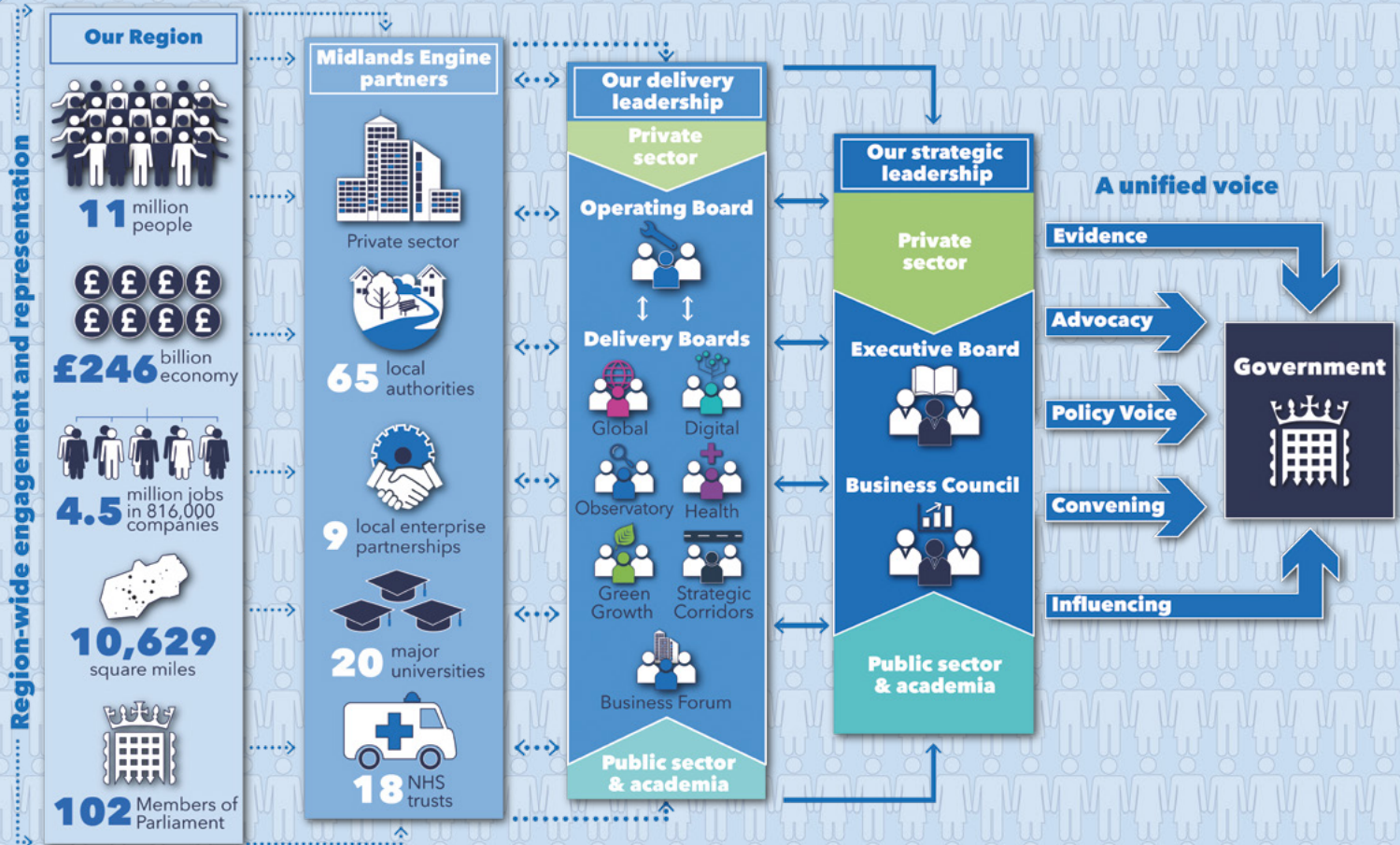


MIDLANDS ENGINE

All images credited to source websites, tweets and press releases

Midlands Engine Health is a partnership between industry, the NHS, academia and the public sector; all working together to powerfully promote our region's extensive capabilities in health and life sciences. Our board aims to represent all of the Midlands health and life sciences sector.





Our Partnership - The Midlands Engine is the largest regional economy in the UK outside London and the place that 11 million people call home. Our Midlands Engine Partnership spans the heart of the UK. Working at scale, we focus on adding value - tackling the things that really matter in our region to drive prosperity for our communities and businesses.

Our Impact - Together, we make sure the Midlands voice is heard and act as a positive agent for economic, social and environmental change, to benefit every single part of our region. We do this through shared intent, collaborative investment and a unified voice, direct to Government.

MIDLANDS ENGINE

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The Midlands Engine is a coalition of Councils, Combined Authorities, Local Enterprise Partnerships (LEP), Universities and businesses across the region, actively working with Government to build a collective identity, to enable us to present the Midlands as a competitive and compelling offer that is attractive at home and overseas. Copyright © 2021 The Midlands Engine, All rights reserved.

Our mailing address is: Midlands Engine, Trent Bridge House, Fox Road, West Bridgford, Nottingham, NG2 6BJ

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