

LEEDS CITY REGION

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Medical Technology
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LEEDS CITY REGION
ENTERPRISE
PARTNERSHIP

THINK HERE

AN ECONOMIC POWERHOUSE WITH GLOBAL REACH, LEEDS CITY REGION BRINGS TOGETHER ENERGY, AMBITION AND A WEALTH OF TALENT TO FUEL A GROWING ECONOMY. SET AGAINST THIS BACKDROP IS A UNIQUE AND INFLUENTIAL HEALTHCARE ECOSYSTEM THAT MAKES OUR REGION UNLIKE ANY OTHER, PROVIDING AN UNEQUALLED OPPORTUNITY FOR INVESTMENT AND GROWTH.

**WHEN YOU THINK HEALTH AND INNOVATION.
THINK LEEDS CITY REGION.**

LEEDS CITY REGION IS SHAPING THE FUTURE OF HEALTHCARE



INVESTMENT IN REGENERATIVE MEDICINE

One of 'eight great technologies', significant investment is to be channelled into this sub-sector. The University of Leeds is leading research in this field, with the University of Huddersfield's Institute for Skin Integrity and the University of Bradford's Wound TEC HTC enhancing the health expertise linked to regional hospitals and NHS institutions.

TECHNOLOGICAL ADVANCES

The increasing importance of Big Data and the development of robots and autonomous systems, synthetic biology and new advanced materials, will have implications for the health and bioscience sector and drive demand for technical skills and support. Leeds City Region is already a leader in these areas, having been chosen as the home of the NHS Health and Social Care Information Centre, as well as both Leeds and York Universities developing research in the field of robotics and autonomous systems.



THE CHANGING POPULATION

Our population is ageing and becoming more diverse and urban. Solutions will become increasingly tailored and support preventative approaches that range across both patient and citizen pathways.

INCREASING PREVALENCE OF HEALTH CONDITIONS

Global population growth and the rise in the number of people with Chronic Non Communicable Diseases will place greater demand on health services.

HIGHER INTEREST IN PERSONAL HEALTH AND RISING INCOMES

Global increases in concerns over health combined with rising incomes and increasing consumerism will accelerate demand for healthcare services.



THE PERSONALISATION AGENDA AND INDEPENDENT LIVING

Policy changes are underway to give adults more control over the support they need which impacts on how healthcare is delivered.



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OUR LOCATION HERE IN LEEDS CITY REGION ENABLES US TO ACCESS PEOPLE WITH THE RIGHT SKILLS AND EXPERTISE FOR OUR BUSINESS. OUR GLOBAL HEAD OFFICE IS HERE, AS WELL AS OUR INNOVATION CENTRE AND MANUFACTURING FACILITY AND WE HAVE NO DIFFICULTY IN RECRUITING EMPLOYEES WITH THE TALENT, SKILLS AND VISION REQUIRED FOR OUR BUSINESS.

*Paul Stobart,
Chief Executive Officer, Tunstall Healthcare Ltd*

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OUR VISION IS RELATIVELY SIMPLE. WE EXPECT TO BE THE LARGEST AND TO BE RECOGNISED AS THE LEADING MEDICAL ENGINEERING RESEARCH CENTRE IN THE WORLD.

*Professor John Fisher,
Director of the Institute of Medical and Biological Engineering,
The University of Leeds*



MEDICAL TECHNOLOGY

Our ambition is simple – to become the European capital of medical technology, providing a home for companies from across the globe setting up operations in Europe or looking for a base close to the high-growth markets in Russia, the Middle East and Africa.

Leeds City Region is already the UK home of orthopaedic manufacturing and related medical engineering. With a long established history, expertise developed over generations and world-class innovation capacity, we offer an unrivalled business environment – not only for companies in this sector, but for suppliers and global purchasers.

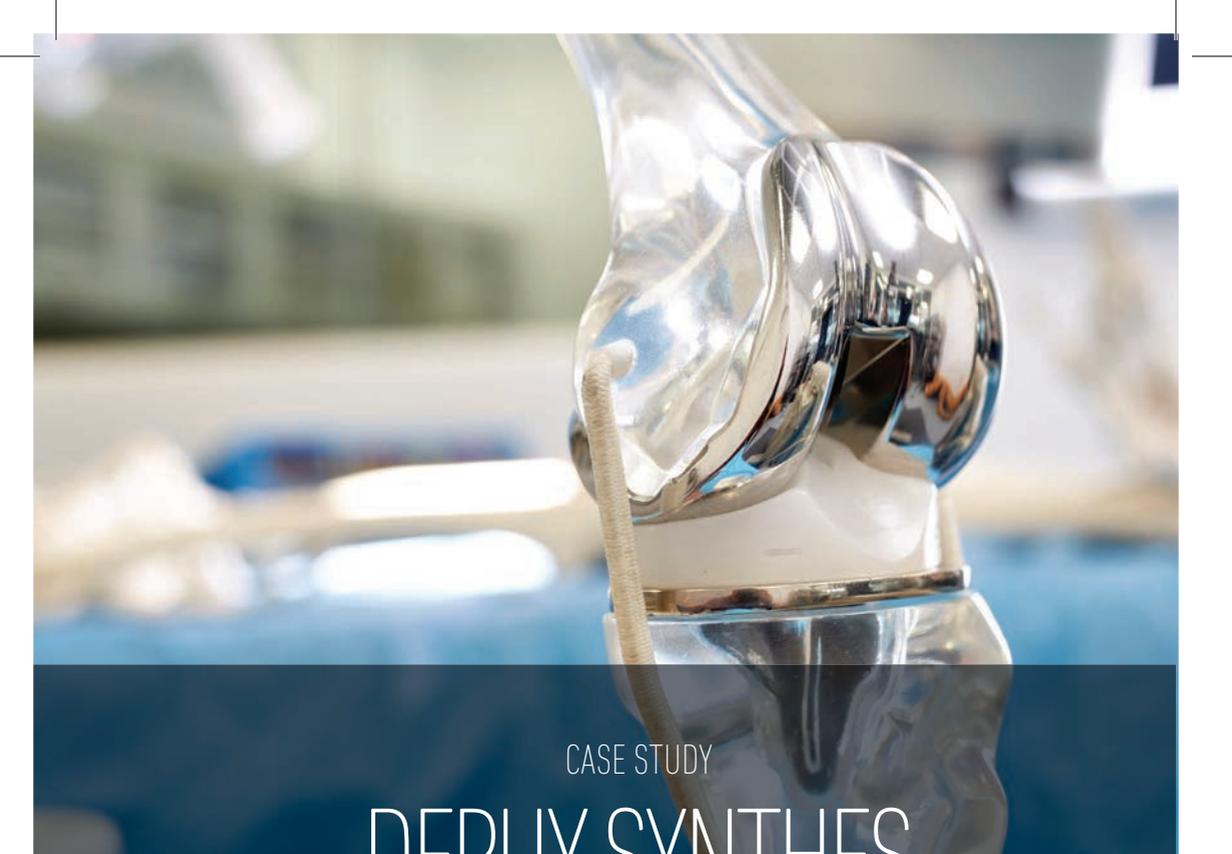
Leeds City Region already boasts a unique cluster of orthopaedic-related companies including the DePuy Synthes' (Johnson & Johnson) international headquarters and Smith & Nephew's UK research and development centre. We are home to a number of centres of excellence including the only National Physical Laboratory facility outside London at the University of Huddersfield and the Institute of Medical and Biological Engineering (IMBE), which is the largest multi-disciplinary orthopaedic engineering research group in Europe and is based at the University of Leeds. The IMBE is dedicated to improving the quality of life of an ageing population with its programme '50 active years after 50'.

The newly created Centre for Innovative Manufacturing in Medical Devices at the University of Leeds brings together academics and industrialists to spearhead the UK drive for new medical technologies that will improve patient lives. Many successful medical device companies operating in the Leeds City Region started as major research initiatives at the University of Leeds.

The IMBE has a range of dedicated experimental and computational facilities to aid research, including materials screening analysis, pin-on-plate friction testing, joint simulation, heart valve simulation, metrology, general testing, and computational facilities.

The city region's innovation eco-system is bigger than just the IMBE - it spans nine universities, commercial research and testing facilities and includes collaborative research in underpinning technologies such as materials and composites (metals/alloys, ceramics and polymers), robotics, computer aided surgery, minimally invasive devices, orthobiologics/biomaterials, tissue engineering and stem cells. This includes:

- **The EPSRC Centre for Innovative Manufacturing in Advanced Metrology** based at the University of Huddersfield and focused on surface measurement and nano-metrology. The research team is one of the best in its field and has worked with the likes of both DePuy Synthes and Stryker.
- **The School of Engineering, Design and Technology** at Bradford University, which specialises in research in advanced materials for orthopaedics. The manufacturing is undertaken by the Medical Engineering team, and the Research and Knowledge Transfer Centres for Advanced Materials Engineering (AME) and Polymer Micro and Nano Technology (Polymer MNT). The Polymer MNT currently has a Knowledge Transfer Partnership (KTP) with Invivo Ltd, a provider of polyaryletheretherketone (PEEK)-based biomaterial solutions to medical device manufacturers around the world.
- **The Centre for Health Economics (CHE)** at the University of York, together with colleagues from the Department of Health Sciences and Centre for Reviews and Dissemination were ranked equal first in the UK for health services research in 2008. The Centre includes the Team for Economic Evaluation and Health Technology Assessment (TEEHTA) and conducts research on behalf of NICE, the licensing body for the UK's National Health Service.



CASE STUDY

DEPUY SYNTHES

A WORLD LEADER IN ORTHOPAEDIC AND NEUROLOGICAL PRODUCTS AND SERVICES

"There were a **multitude of reasons** for choosing Leeds City Region as the location for our global R&D centre. These include the **historical association of innovation** in medical technology, the **availability of the necessary skills**, **access to the headquarters** of NHS England, and the **long-term support of the Government** to the life sciences industry in the region. We are also able to **support young talent in the area** through apprenticeships, new graduates and PhD programmes, as well as having a **ready talent pool of those with the required experience** to recruit for our high quality R&D roles.

"Our location here also enables our teams of scientific and business experts to **collaborate on a regional, national and global scale with leaders in academia** to accelerate cutting edge science being brought to market as viable healthcare solutions. Having direct access to, and working closely with the **University of Leeds' world-leading Department of Tribology** was a huge draw, as **their scientific knowledge and expertise has been vital in further developing** our joint reconstruction implants."

MIKE BARKER, GLOBAL VICE-PRESIDENT OF R&D AT DEPUY SYNTHES

DePuy Synthes, part of the Johnson & Johnson family, offer the world's largest portfolio of orthopaedic and neurological products and services, designed to increase patient satisfaction, reduce costs and improve clinical outcomes.

Innovation and R&D is at the heart of DePuy Synthes' vision for growth and the primary focus for the new Beeston R&D Centre, located in the heart of Leeds City Region. Through extensive investment in R&D, this portfolio of products has evolved from functional implants to those which combine the latest technology around kinetics, engineering and materials.

DePuy Synthes' Customs and Compassionate Care Group develops personalised implants for patients with specific or more complex needs. This is facilitated at the Beeston site whose facilities enable prototype and small scale manufacture, in addition to its R&D capabilities.

In 2013 DePuy Synthes received £4.4million from government's Regional Growth Fund initiative to help support further R&D and innovation in the sector. The funding was utilised to support the creation of the new Centre of Excellence at Beeston for joint replacement, which includes R&D and prototype manufacturing.

depuysynthes.com

LEEDS CITY REGION STRENGTHS: HEALTHCARE - THE OPPORTUNITY

TAP INTO WORLD-LEADING RESEARCH FROM LEEDS CITY REGION'S UNIVERSITIES ACCELERATING R&D ACROSS THE WOUND CARE AND REGENERATIVE MEDICINE SECTORS.

THINK SCALE



Largest UK city region economy outside London



196,000 health and life sciences jobs



Largest concentration of medical device companies in the UK with a cluster of over 160 different businesses



4 out of 5 NHS headquarters, **13** clinical commissioning groups and **12** NHS trusts located in Leeds City Region

THINK SKILLED



41,500 graduates annually from 9 universities

ANNUAL STEM GRADUATES

LEEDS CITY REGION

8,430

GREATER MANCHESTER

7,385

SHEFFIELD CITY REGION

4,620

GREATER BIRMINGHAM AND SOLIHULL

4,505

HEFCE 2012/13

THINK INNOVATION



138 Centres of Excellence in healthcare across Leeds City Region

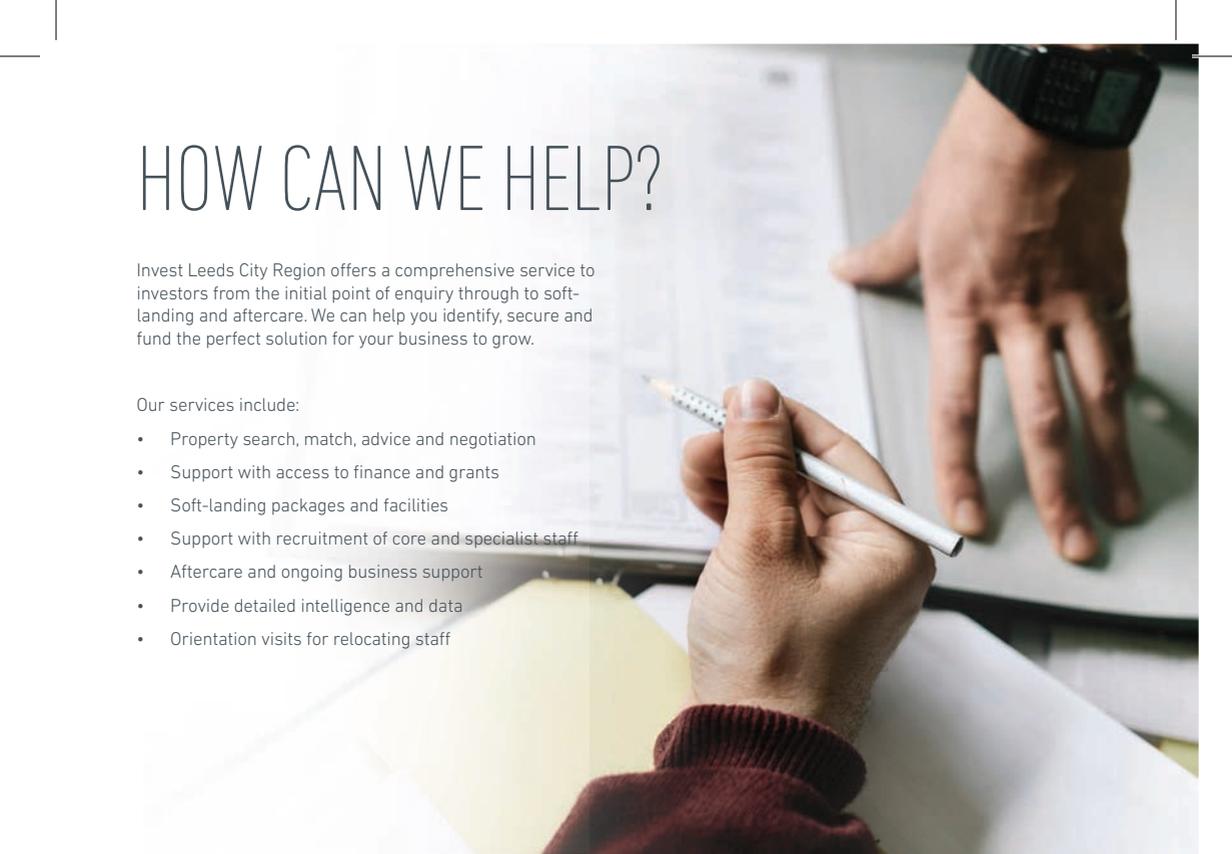


36% of Leeds City Region combined university research is world-leading and a further **10%** world-class



Diverse collaborative health ecosystem supports **'living lab'** concept

HOW CAN WE HELP?



Invest Leeds City Region offers a comprehensive service to investors from the initial point of enquiry through to soft-landing and aftercare. We can help you identify, secure and fund the perfect solution for your business to grow.

Our services include:

- Property search, match, advice and negotiation
- Support with access to finance and grants
- Soft-landing packages and facilities
- Support with recruitment of core and specialist staff
- Aftercare and ongoing business support
- Provide detailed intelligence and data
- Orientation visits for relocating staff

GET IN TOUCH TO START ENJOYING THE BENEFITS OF LEEDS CITY REGION

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