

Kirklees UK THE ADVANCED PRECISION ENGINEERING INVESTMENT OPPORTUNITY

September 2021

Kirklees UK: The Advanced Precision Engineering Investment Opportunity



Kirklees, West Yorkshire, is strategically located at the heart of the UK's advanced precision engineering capability, presenting profitable growth opportunities for expanding and relocating businesses.

Both the UK and international markets are experiencing a period of rapid technological and structural change that is presenting high-value opportunities for research and technology-focused companies.

Kirklees is home to an established and diverse cluster of businesses with distinctive advanced precision engineering capabilities, an emphasis on research, innovation and collaboration, and an increasing focus on implementing Industry 4.0 digitalisation and automation technologies. Innovation is facilitated by fast access to world-class manufacturing, materials and metrology research centres of excellence, both locally and across the North of England, for sustained competitive edge.

Kirklees' location offer to investing businesses is enhanced by access to a large, technically skilled sector workforce in Leeds City Region, education and skills providers aligned with the needs of industry, and fast, multimodal access to UK and international markets from a strategic, highly connected location. But in Kirklees, all these value-adding benefits are combined with significant cost advantages versus key competitor manufacturing locations in the UK.

Which explains why leading advanced precision engineering businesses including Cummins, David Brown Santasalo, Reliance Precision and Olympus Technologies have chosen to invest and grow their operations in Kirklees.



UK growth opportunities in low carbon transport, Industry 4.0 tech & defence



A diverse industry cluster focused on precision engineering competencies



Fast access to world-leading advanced engineering research & innovation centres



Direct access to one of the UK's largest manufacturing labour forces



A range of high-quality industrial property solutions for investing businesses



An optimal location, for fast, multimodal access to UK and global markets



Dedicated support for your business investment project

The UK Advanced Precision Engineering Market Opportunity



In the UK and worldwide, a period of rapid, transformational change is creating a range of growth opportunities for dynamic advanced engineering businesses.

The Green Recovery & Net Zero Carbon: the UK Government has committed to Net Zero carbon emissions by 2050. The '10-Point Plan' for Green Recovery creates opportunities for advanced engineering businesses in sectors including low carbon transport and sustainable energy.

Low-Carbon Transport: The need for entirely new transportation technologies present opportunities in areas including electric vehicles, low carbon powertrain, and connected and autonomous vehicles.

Advanced Materials: Closely linked to the low carbon agenda, growth opportunities exist in areas including light-weighting, for more sustainable transport, and specialised coatings and materials for renewables technologies (e.g. for turbine blades).

Industrial Digitalisation: The Industry 4.0 revolution is transforming manufacturing. The UK's world-class research and technology capabilities in areas including AI, Big Data, and robotics and automation can enable advanced engineering businesses to gain competitive edge through research collaborations.

Reshoring & Supply Chain Resilience: Recent events including EU Exit and Covid-19 have led to a reevaluation of supply chains, with increased focus on resilience. Supply chain restructuring and reshoring of production operations presents potential growth opportunities for businesses in the UK supply chain.

Defence: The UK government has recently announced a £16.5bn increase in defence spending, the 'largest military investment in 30 years.' Focused on AI, digital, and high-technology engineering, the decisions present high-value opportunities for businesses with advanced engineering capabilities.

Kirklees provides the ideal location for advanced precision engineering companies seeking the knowledge, technologies, skilled personnel, and supply chain linkages required for success in highly competitive, technology driven market sectors.



An Outstanding Advanced Precision Engineering Industry Cluster (1)



Significant Manufacturing Sector Concentrations in Kirklees vs. GB Average

	Manufacturing	Machinery &	Fabricated	Motor
	(All) ²	Equipment ³	Metal Products ⁴	Vehicles⁵
Location Quotient (Sector workforce concentration vs. Great Britain (GB) average)	2 X	3.8 X	1.8 X	1.75 X

Locating within an established industry cluster adds value for investing businesses by providing direct access to concentrated supply chains, specialist knowledge, and skilled workers.

When compared with Great Britain's leading advanced manufacturing cluster locations,¹ Kirklees shows some of the country's highest industry concentrations in key categories including:

Manufacturing (all): Kirklees has 2 X the national average concentration of manufacturing industry. That's higher than the cities of Sheffield and Leeds, and ranked 3rd behind Derby and Sunderland (major automotive manufacturing centres).²

Machinery & Equipment Manufacturing: Kirklees has almost 4 X the national average industry concentration in this category – ranked 2nd behind Sunderland.³

Metal Fabrication: Kirklees has 1.8 X the national average industry concentration in this category – ranked 3rd behind Sheffield and Wolverhampton & Walsall.⁴

Motor Vehicle Manufacturing: Kirklees has 1.75 X the national average concentration in this industry classification – ranked 4th behind Sunderland, Learnington Spa (Warwick) and Derby.⁵



Location Quotients (LQs) are an established industry clustering metric, measuring the ratio of local industry sector workforce numbers to the GB average (represented by 1.0).

Source: ONS BRES 2019 (1) Huddersfield, Leeds, Sheffield, Preston, Bristol, Plymouth, Southampton, Sunderland, Derby, Coventry, Leamington Spa (Warwick area), Wolverhampton & Walsall Travel to Work areas; (2) SIC C (3) SIC28 (4) SIC25 (excludes machinery & equipment) (5) SIC29

An Outstanding Advanced Precision Engineering Industry Cluster (2)



Kirklees is home to a highly specialised and innovative precision engineering cluster, which is a vital part of the UK's wider advanced manufacturing capability.

The cluster includes niche precision engineering supply chain companies, global automotive manufacturers, and leading-edge innovators combining precision manufacturing with data analytics, artificial intelligence and robotics. These advanced manufacturers are complemented by innovative research, design and development, materials, and supply chain specialists, and collaboration between organisations is prevalent. The cluster serves diverse markets – a feature that has underpinned its growth and resilience. Sectors served typically have high-performance engineering requirements and a strong focus on research and development, including automotive, aerospace, defence, energy and medtech.

Key businesses in the Kirklees cluster include:

Cummins: a leading power technologies company with its global turbocharger technologies R&D centre in Kirklees, focused on developing low carbon powertrains.

Reliance Precision: manufacturers of high-reliability precision instrumentation for laboratory automation, robotics, medtech, aerospace, and defence.

Holtex: R&D-focused specialists in engineering design and precision manufacturing, serving diverse sectors including automotive, aerospace, oil & gas, and medtech.

High-technology businesses in the cluster include Ionix Advanced Technologies, Olympus Technologies and Wayland Additive.

For precision engineering businesses investing in Kirklees, the area's established industry cluster offers value-adding expertise, a highly skilled workforce, and the potential for profitable supply chain partnerships.



Cummins

Turbocharger technologies global R&D



Holtex

Engineering design & precision manufacturing



Krugers

Design and precision engineering; larger scale production



Calidad Services

Design, manufacture, production relocation



David Brown Santasalo

Mechanical power transmission



Wayland Additive

Electron beam additive manufacturing

KENWARD PRECISION ENGINEERING

Kenward Precision Engineering

Specialist industrial gear cutting / grinding



Olympus Technologies

Innovative robotic integrator



VTL Precision

Components for automotive power train



LDC Engineering

Sub-contract gun & deep-hole drilling; CNC machining

HR BEARINGS

HB Bearings

Manufacturer of specialist 'difficult to source' bearings



Shelley Automation

Pneumatics, process control & engineering systems



Reliance Precision

Precision instrumentation



Ionix Advanced Technologies

Sensors for extreme environments



Advanced Intelligent Supply Chain

Intelligent supply chain solutions



Calderdale & Kirklees Manufacturing Alliance

Regional manufacturing networking organisation

World-Leading Advanced Engineering Research & Technologies (1)



Kirklees' optimal location between the Manchester, Leeds and Sheffield city regions provides businesses with easy access to several of the UK's leading engineering, manufacturing and materials research and technology centres.

Within Kirklees, the University of Huddersfield hosts a number of centres with specialisations including metrology, advanced manufacturing, precision engineering, and Industry 4.0 technologies. They include the Centre for Precision Technologies, the Centre for Industrial Analytics, the Centre for Efficiency and Performance Engineering, and the Institute of Railways Research. Huddersfield's metrology assets include the Future Metrology Hub and the National Physical Laboratory (North of England).

Within one hour of Kirklees, businesses can access a range of world-leading research and technology centres, including the AMRC and Nuclear AMRC High-Value Manufacturing Catapult Centres, and the Henry Royce Institute.

These internationally recognised centres of excellence can enable Kirklees-based businesses to gain competitive edge through collaborative research and innovation, involving both industry and academia, in key areas including manufacturing digitalisation, automation, low carbon technologies, and high-performance materials.

National Physical Laboratory (NPL) (Huddersfield)

The UK's National Metrology Institute – metrology research, technology & innovation

3M Buckley Innovation Centre (3M BIC) (Huddersfield)

Innovation and technology centre supporting product design, prototyping and verification

Advanced Machining & Productivity Institute (AMPI, Rochdale)

Innovation & technology for advanced machinery manufacturing

Future Metrology Hub (FMH) (Huddersfield)

£40 million, EPSRC funded metrology research centre (University of Huddersfield)

Advanced Manufacturing Research Centre (AMRC) (Sheffield)

Research & technology: advanced machining, manufacturing & materials (University of Sheffield)

National Facility for Innovative Robotic Systems (NFIRS) (Leeds)

Innovation & technology for robot design & construction

Centre for Innovative Manufacturing (CIM) (Huddersfield)

Disruptive, next generation advanced manufacturing technology solutions (University of Huddersfield)

Nuclear Advanced Manufacturing Research Centre (NAMRC) (Sheffield)

Innovation & technology: large-scale high-precision manufacturing (University of Sheffield)

> Henry Royce Institute (HRI) (Manchester)

The UK's National Institute for advanced materials research and Innovation

World-Leading Advanced Engineering Research & Technologies (2)



In addition to highly specialised local research capabilities at the University of Huddersfield, in areas including precision engineering and metrology, Kirklees provides businesses with fast access to 6 of the UK's highest performing research universities.

Accessible within 2 hours' drive time, the universities of Leeds, Manchester, Sheffield, Liverpool, Lancaster and Nottingham each feature in the UK top-25 for subject areas relevant to advanced precision engineering.

The universities of Sheffield, Manchester and Lancaster each feature in the top-20 for research overall.[1]

Source: (1) UK REF 2014

	University of Leeds	University of Sheffield	University of Manchester	University of Liverpool	Lancaster University	Univ. of Nottingham
UK University Rankings [1]						
UK Research Ranking	21	14	17	33	18	26
UK Subject Rankings [1]						
Computer Science & Informatics	18	5	4	10	12	13
Aeronautical, Mechanical, Chemical & Manufacturing Engineering	4	7	7			
Electrical & Electronic Engineering, Metallurgy & Materials	5	8	9	20		
General Engineering		3		19	22	18

Advanced Manufacturing & Engineering Workforce, Education & Skills (1)



For precision engineering businesses, Kirklees combines access to a large, technically skilled sector workforce with some of the UK's lowest labour costs.

Manufacturing: As part of the Leeds City Region conurbation, Kirklees can provide businesses with access to one of Great Britain's largest manufacturing labour forces, totaling 112,000 people. That's more than the Greater Birmingham, Lancashire, Sheffield City Region or Coventry & Warwickshire areas.¹

Machinery & Equipment Manufacturing: Leeds City Region, provides Kirklees-based businesses with access to 10,000 workers in this category. That's more than Derbyshire & Nottinghamshire, Coventry & Warwickshire or Sheffield City Region. ²

Fabricated Metal Manufacturing: Leeds City Region provides Kirklees-based businesses with access to 20,000 workers in this category. That's more than Greater Birmingham, Sheffield City Region, Lancashire, or Coventry & Warwickshire. ³

Cost Advantages: Kirklees combines workforce availability and technical skills with significant labour costs savings: 18% lower than the Great Britain average. ⁴

For businesses investing in Kirklees, the area's established, skilled engineering and manufacturing workforce enables efficient project delivery, ongoing productivity, and cost effectiveness.

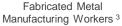
Because Kirklees is part of the Leeds City Region, advanced precision engineering businesses can access one of England's largest labour forces.











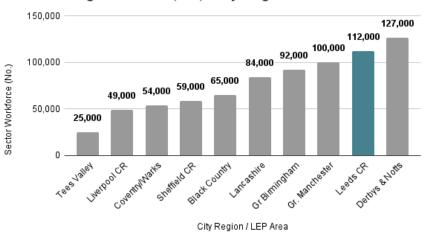


Wages vs. Great Britain Average ⁴

Advanced Manufacturing & Engineering Workforce, Education & Skills (2)



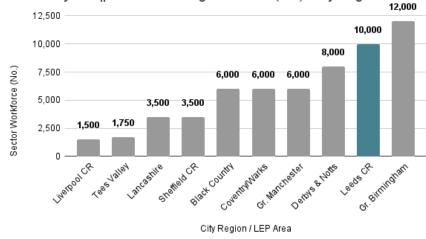
Manufacturing Workforce (No.): City Regions



A comparison of England's major manufacturing City Regions (or LEP areas) shows that Leeds City Region (of which Kirklees is a part) has the 2nd largest manufacturing workforce, with a total of 112,000 people working in the sector.

Source: ONS BRES 2019 (latest): SIC C Manufacturing

Machinery & Eqpt. Manufacturing Workforce (No.): City Regions



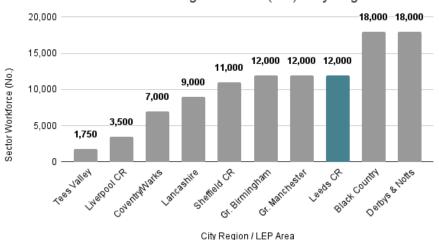
Amongst England's major manufacturing City Regions (or LEP areas), Leeds City Region (of which Kirklees is a part) has the 2nd largest machinery and equipment manufacturing workforce, with 10,000 workers in the category.

Source: ONS BRES 2019 (latest): SIC 28 Manufacture of machinery and equipment n.e.c

Advanced Manufacturing & Engineering Workforce, Education & Skills (3)



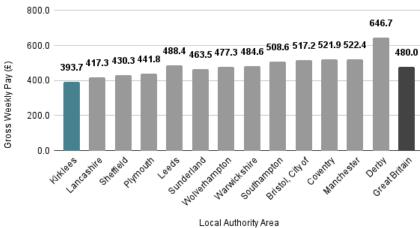
Fabricated Metal Manufacturing Workforce (No.): City Regions



Amongst England's major manufacturing City Regions (or LEP areas), Leeds City Region (of which Kirklees is a part) has the 3rd largest fabricated metal manufacturing workforce, with 12,000 workers in the category.

Source: ONS BRES 2019 (latest): SIC 25 Manufacture of fabricated metal products, except machinery and equipment

Labour Costs (£): Advanced Manufacturing Locations



Local Additionly Area

In a comparison of major manufacturing locations in England (local authority areas), Kirklees has the lowest average wages. In Kirklees, average wages are 18% lower than the Great Britain average.

Source: ONS ASHE 2020: Median Gross Weekly Pay, Local Authority Areas

Advanced Manufacturing & Engineering Workforce Education & Skills (4)



Higher, Further & Sixth-form Education Provides



Kirklees' schools, colleges and university deliver high-quality skills, training and apprenticeships aligned with the needs of industry.

Both the University of Huddersfield and Kirklees College offer STEM-focused courses and qualifications, and multi-million pound training facilities, focused on advanced engineering skills.

Kirklees College



Kirklees College delivers full and part-time engineering courses up to HNC/HND level, and apprenticeships. The college's £7.5m Engineering Centre provides state-of-the-art equipment and workshops for CNC, manufacturing, maintenance, mechanical engineering, fabrication, and welding. The Process Manufacturing Centre is a £5m employer-led centre offering industry-standard, automated process plant facilities.

The University of Huddersfield



The University of Huddersfield is a TEF* gold-rated University offering Bachelor, Masters and PhD - level higher education in disciplines including electronic and electrical engineering, energy engineering, mechanical engineering, computer science, and computer science with artificial intelligence.

* UK Government Teaching Excellence Framework

Greenhead College



Greenhead College is one of the top-ten performing sixth form colleges in the UK, offering traditional Alevels including maths, further maths, physics and computer science.

Industrial Sites & Property Solutions



Kirklees offers a range of high-quality industrial sites and property solutions for investing advanced precision engineering businesses, including:

- Ready-to-go sites for built-to-suit prime industrial properties
- Sites with direct access to the UK motorway network at a strategic central point (M62), enabling fast access to key UK manufacturing and logistics hubs, ports and airports
- A large portfolio of available industrial units
- Property cost savings (prime rents) of up to 15% versus key competitor advanced manufacturing locations in England.^{[1][2]}

Current Industrial Site Opportunities

Currently available sites include:

Interchange 26

- Strategically located with direct access to the M62 and M606 motorways
- Industrial units will be available from 15,000 sq ft to 250,000 sq ft, including built-to-suit, with freehold or leasehold tenancies Interchange 26

Moor Park 25

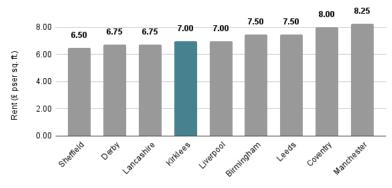
- Strategically located on the A62, close to junction 25 of the M62
- Phase 2 is underway to deliver 5 industrial or warehouse units in sizes from 19,500 to 59,000 sq ft, including build-to-suit solutions.

Moor Park 25

Property Cost Savings



Industrial Property Rents: £ Per Sq. Ft. Per Annum
Comparison of Key UK Advanced Manufacturing Locations 12



Kirklees: Fast Access to UK & International Markets



Kirklees' highly advantageous location enables fast access to UK and global destinations via multiple transport modes.

By Road



Kirklees is located centrally on the North of England's main arterial route – the M62 motorway. All the major cities, airports and ports of the North West, Yorkshire, the Humber and the East Midlands are accessible within 2 hours HGV drive time.

By Rail



Huddersfield is Yorkshire's second busiest station (after Leeds), offering frequent services to destinations including Leeds, Manchester Airport (within approximately 1 hour) and Sheffield.

By Air

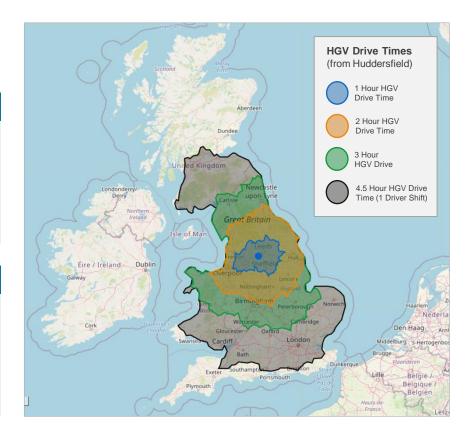


Manchester, Leeds and Doncaster Sheffield Airports are accessible within 1 hour's drive time. East Midlands, the UK's largest dedicated air cargo hub, can be reached in less than 2 hours' HGV drive time.

By Sea

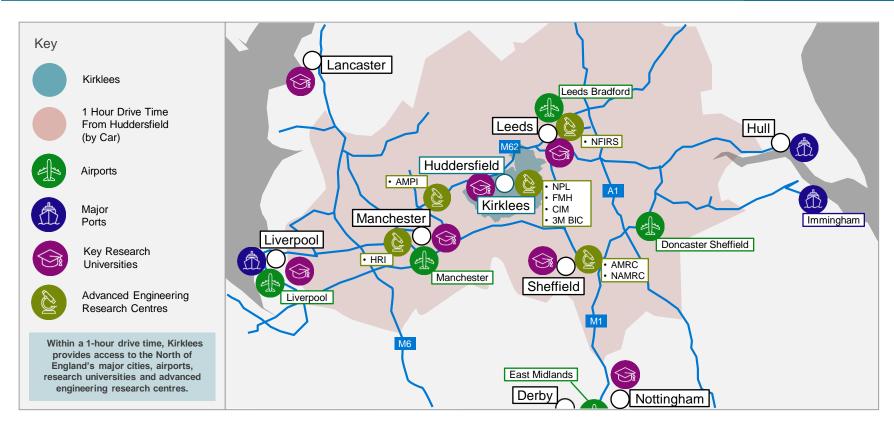


The major sea ports of Liverpool, Immingham (the Humber), and Teesport are accessible within 2 hours' HGV drive time. The major container port of Felixstowe can be reached within 4.5 hours' HGV drive time, or 1 driver shift.



Kirklees: Location & Connectivity





Support for Your Advanced Precision Engineering Business Investment



Kirklees Council Support for Investing Businesses

Kirklees Council provides a range of dedicated services for businesses investing in the area, including:

- · Location, economic and market intelligence
- Access to local supply chains and business networks
- Property searches and introductions
- · Access to funding for business investment
- · Access to workforce recruitment, education and training solutions.

Contact us to find out how we can support your business relocation or expansion project.

Contact Us

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