

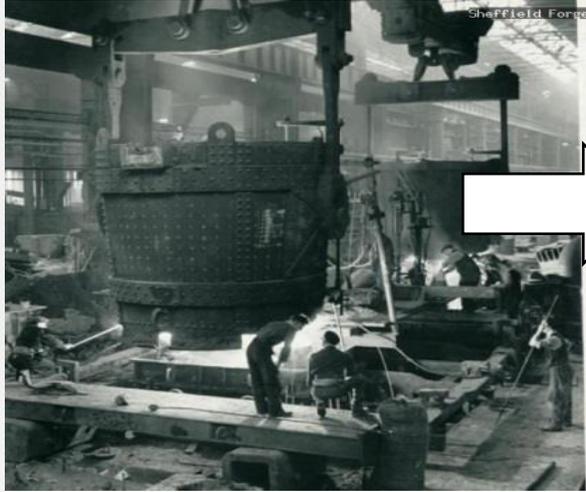
The Innovation District

Building on our Strengths

Further developing the region's
Advanced Manufacturing
capability and capacity



How we got here:



1740s-1970s

Distinguished history of metals-based manufacturing:

Global reputation based on precision and quality.

“Made in Sheffield”



2000s

World-leading University-Industry collaboration:

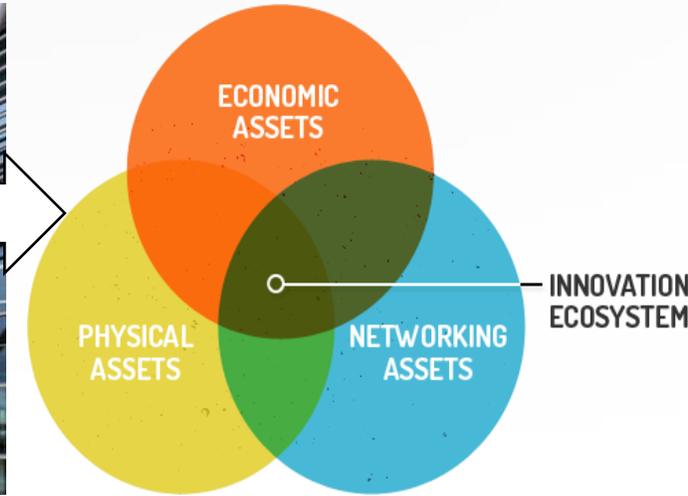
The University of Sheffield's Advanced Manufacturing Research Centre (AMRC) and NAMRC developed as part of the Government's Catapult programme



2010-2017 and beyond

Development of Factory 2050 provided opportunity to expand the Advanced Manufacturing Park concept into something bigger and better through scale and sectoral convergence

The **Olympic Legacy Park** provides a complementary health innovation campus



2015-->

Role of innovation districts in transforming economies from industrial-based to technology-driven places

Key Economic Issue:

The Region's Inclusive Industrial Strategy identifies a large and growing **productivity gap**

Sheffield City Region has a lack of **high-value, high-skilled jobs** compared to the UK average

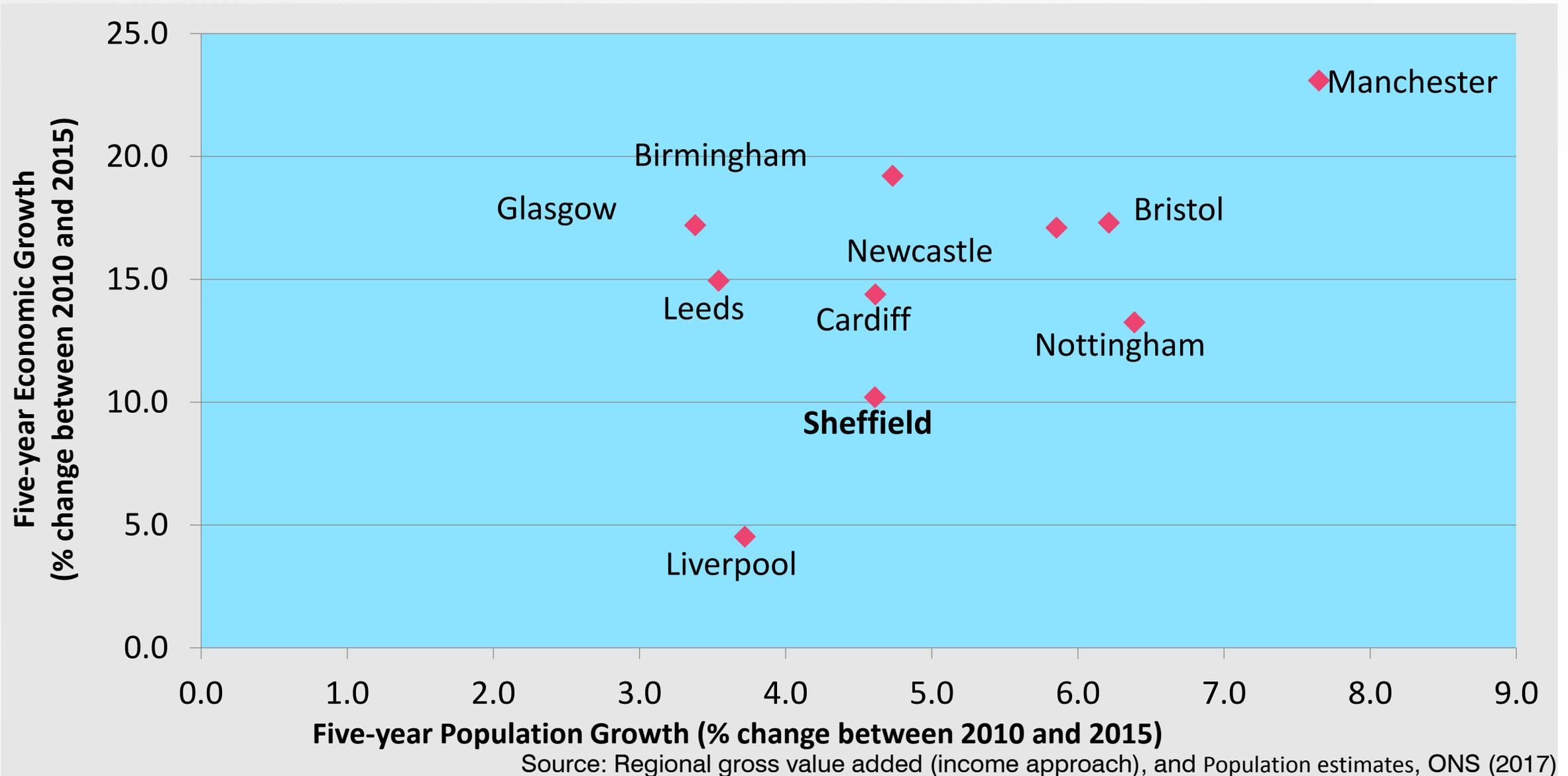
We need to create and realise new opportunities in GVA driving sectors.

Advanced manufacturing is a high value growth sector where Sheffield and Rotherham have distinct competitive advantage over other places.

A man in a dark suit and tie stands on the edge of a high, rocky cliff. He is leaning forward, looking down into a deep chasm between two cliff faces. He is holding a black briefcase in his right hand. The background is a clear blue sky.

Productivity Gap
Cumulatively this represents
est. £20bn productivity
challenge over 10 years

Relative Growth of UK Core Cities



Source: Regional gross value added (income approach), and Population estimates, ONS (2017)

Why the Innovation District?

Creating a unique environment that supports the development of innovative ideas into successful businesses

Technology

An international centre of advanced manufacturing innovation. On the global technology frontier

Collaboration

A vibrant and dynamic place where world-leading manufacturers collaborate and co-locate with SMEs, start-ups and innovators



Innovation

We are at the centre of an ambitious regional approach to innovation led growth

Partnerships

Global partnerships between education & industry drive cutting edge research into new manufacturing products and processes

Connected

A place where people want to live, work and network; with a distinctive housing offer, shared amenities and excellent connections to national and international transport networks



Bruce Katz Brookings Institution

‘This powerful collaboration between the University and Industry provides the region with a strong base for a globally significant innovation economy.’

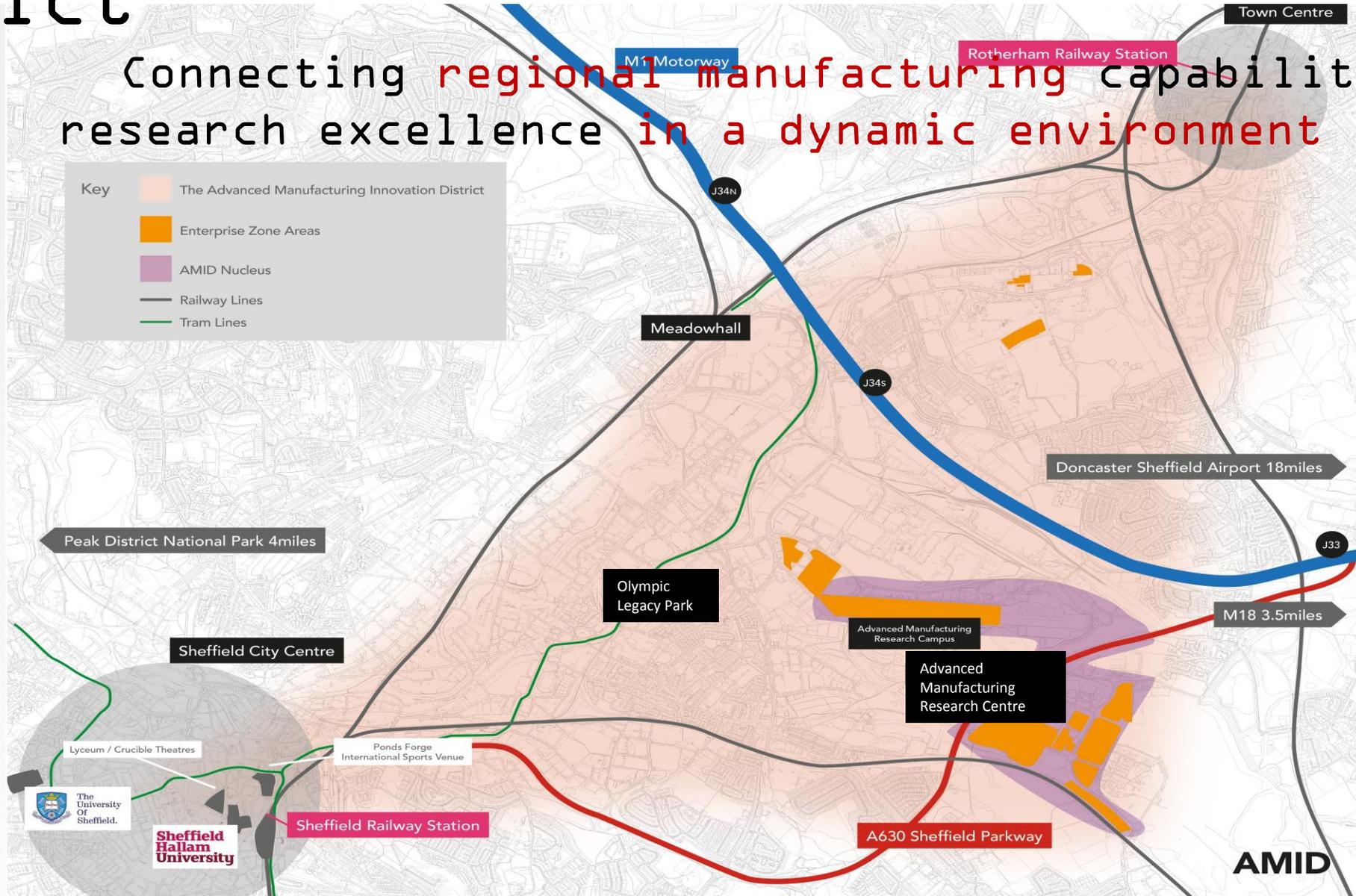
‘Our visit to Sheffield convinced us that Advanced Manufacturing, despite its distinctive manufacturing characteristics, may be evolving in a way that embraces the principles and some of the physical dimensions of innovation districts.’



The Innovation

District

Connecting regional manufacturing capabilities with research excellence in a dynamic environment



Developing a scalable model: industry, academic and public sector engagement



Advanced Manufacturing Research Campus

Targeting the most vital technologies for the UK's future manufacturing research excellence.



Olympic Legacy Park

The Advanced Wellbeing Research Centre at the OLP will become the most advanced research and development centre for physical activity in the world

OLP includes a £14million Advanced Wellbeing Research Centre (AWRC).



Olympic Legacy Park (OLP) developed in partnership with Sheffield Hallam University, Sheffield Teaching Hospitals NHS Foundation Trust and Sheffield City Council.

Research partners including Toshiba, Westfield Health, parkrun and Sheffield Children's Hospital.

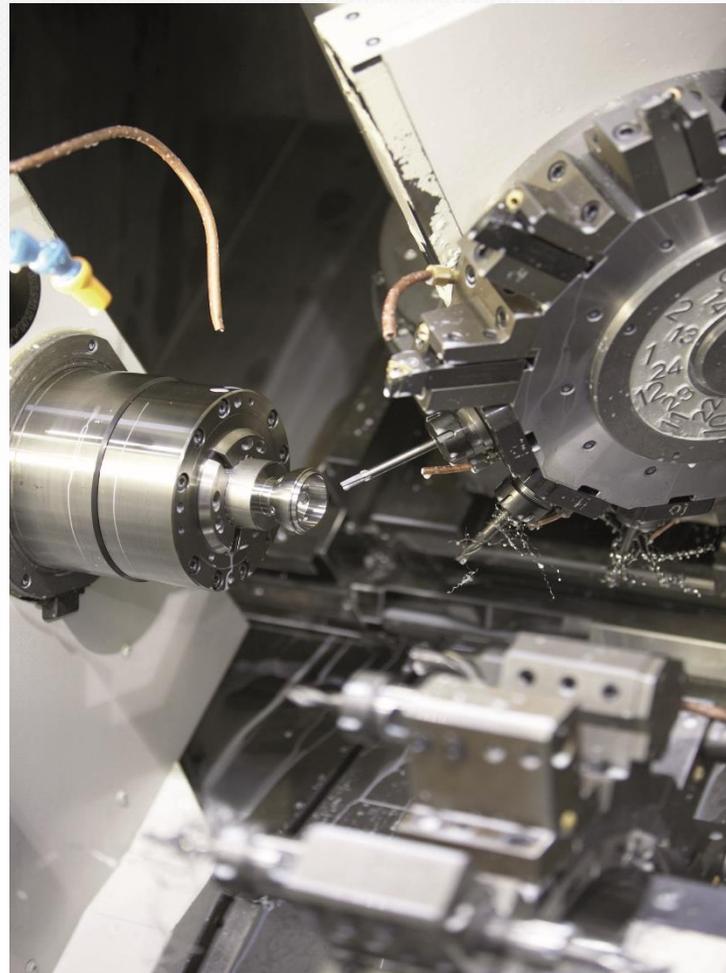


- 35 acre Health Innovation Campus including AWRC
- 100,000 sq ft of offices/laboratories,
- 3,000 seater Arena
- University Technical College (UTC) for 600 students
- Academy for 1,200 pupils



Precision and Quality is in our DNA

Universities working in partnership with businesses, creating innovative solutions in industries with complexity



Our region already has specialisms in a number of strategically important advanced manufacturing sectors with businesses involved in materials, design, components, production and aftermarket support and technical services.



Precision Engineering

We are recognised worldwide for our expertise in high-precision engineering, metals and alloy production.



Industrial Training

Our skilled workforce is bolstered through apprenticeships – over 20,000 annually.



Sector Specialisms

Strengthening our expertise in growing high value sectors; working alongside Boeing, Rolls-Royce, Airbus, Siemens, Jaguar Land Rover & McLaren

Translational Research

We solve industrial problems: Taking technologies from the laboratory into international markets

Connecting operations across different stages of the manufacturing **Value Chain**



Machining

High speed machining of high performance alloys and composite materials



Assembly

Using innovative robotic systems for new ways of automatically assembling large complex systems



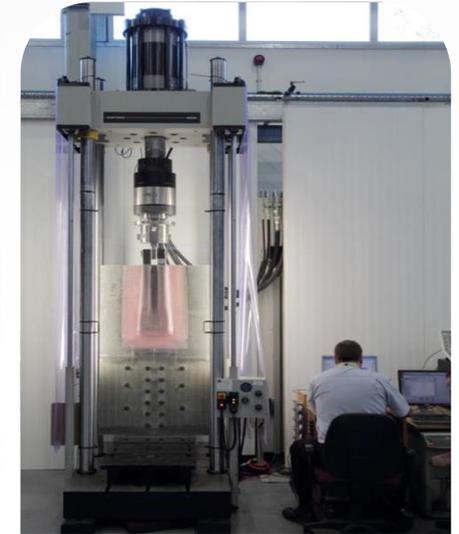
Composites

R&D into processing, production and machining of carbon fibre composite and hybrid materials



Design & Prototyping

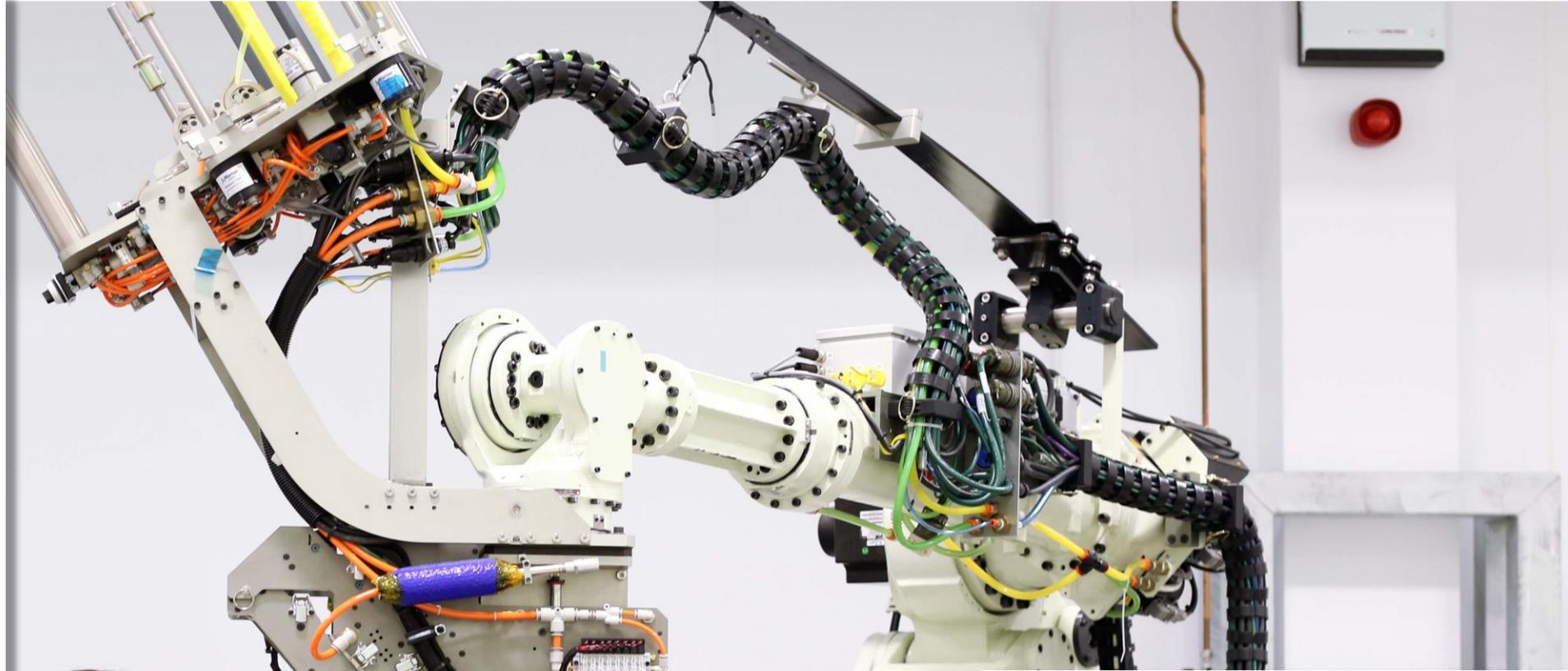
Helping develop new and innovative high-value products



Advanced Structural Testing

Prove new technologies and processes meet industry standards

Industrial Collaboration



“Our research is embedded in industrial partnerships. We have global companies such as Rolls-Royce coming here, and partnering with us on major projects; companies that have gone on to fundamentally change the way they go about their business, based on our data and research”

Adrian Allen OBE,
Advanced Manufacturing
Research Centre

Creating Opportunities

Linking collaborative research to stimulate innovation and capital investment is working in Sheffield and Rotherham.

The focus on R&D within wider economic development projects provides the headroom for significant growth and the potential for a powerful economic impact

The approach is attracting a Growing Advanced Manufacturing Cluster

You're in good company...



01709 710700

...Including recent investments.....

A great start to 2017 but we can do more



McLaren
£50m manufacturing plant



Boeing
£40m factory, first in Europe



Bold **Ambition**

Pursuing a truly ambitious approach to economic growth and regeneration

The Revised Growth Target

- Previous plans would leave our economic performance unchanged relative to other Core Cities and the UK average
- Targeting an **additional annual GVA growth of 1%** centred on advanced manufacturing will reduce the productivity gap
- Land, incentives and other resources must be scaled up to bring this ambition to fruition

The Outcomes

- Sheffield City Region will become the UK's regional economy with the highest manufacturing intensity
- Over a generation, economic performance will be brought into the mainstream of G7 economies



The Approach

Supercharge Innovation and Magnetise Place

Companies value the **connections** to flexible, industrially focused research facilities that bring access to R&D capacity and funding.

The “magnet” is powered by the economic and commercial value of **product and process innovation** – providing a compelling business proposition for inward investors .

We will need to increase the size of the AMRC to provide the physical and **intellectual capacity** to support the high R&D intensity Innovation District .

A truly ambitious approach will attract commercial investors but we must also assemble; **Land**, Public **incentives** for capital and **R&D at scale** commensurate with our ambitions.

Strategic Focus

Advanced Manufacturing

Attracting large, innovation intensive, inward investment projects and localisation of international **supply chains**.

Building on an effective scalable model of industry, academic and public sector engagement.

More ambitious policies to create a **dynamic culture** that nurtures high potential start-ups.

Support the enhanced performance and **growth of SMEs**, especially those with export potential.

Pursue opportunities with substantial economic potential, compatible with our areas of **comparative advantage**;

- Advanced manufacturing, digital and health.

Thankyou for listening
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