

Our Strategic Economic Plan 2020-2040

**Sheffield
City Region**

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The Opportunity

The SCR economy has huge untapped potential. But it faces a productivity challenge. Too few of our businesses innovate or operate in national and global supply chains. Too few of our people have the right qualifications to get into, stay and move on in work and our transport system and our urban centres require improvement to match the level of our ambition.

Because of these challenges, not enough of our people fulfil their potential. Yet, the same capabilities that put the city-region at the heart of the world's first industrial revolution give us the opportunity to be at the centre of the next. This is because the world needs new:

- Approaches to traditional ways of working across our economy.
- Ways of transporting people quickly, efficiently and safely.
- Ways of getting our population healthy.
- Manufacturing and engineering processes.
- Ways of building, designing, and enabling zero carbon homes.
- Methods of energy production and the means to scale them.
- Products and materials that are lighter, stronger and which use less energy in their production and their use.

These are the opportunities that our research base, our institutions, our businesses and our people are superbly placed to take advantage of. This Strategic Economic Plan sets out what we intend to prioritise to make this happen.



Our Vision

Our approach is underpinned by a simple vision:

The Sheffield City Region will grow an economy that works for everyone. We will develop inclusive and sustainable approaches that build on our innovation strengths and embrace the UK's 4th Industrial Revolution to contribute more to UK prosperity and enhance quality of life for all.

A focus on growth, inclusion and sustainability

In the new landscape after Covid-19, we will not pursue growth at any cost. We will prioritise investment in generating growth that is good, that helps respond to the national and global challenges of productivity, decarbonisation and tackling inequality.

If we get this right:

1. We will be a net contributor to the national economy, retaining talent rather than exporting it and attracting new investors to locate in the region;
2. Our people will be healthier, better qualified and better able to access good opportunities;
3. We will build a zero-carbon future through hydrogen, nuclear fusion, carbon capture utilisation and storage, and other clean energy technologies;
4. We will lead the world in testing, developing and commercialising ideas emerging from our research community and businesses;
5. We will have vibrant town and city centres with rich sporting, cultural and leisure offers attracting people and visitors from across the country.

The purpose of this plan is to point the way to a prosperous, inclusive and local carbon future.

We have set out how we will build and sustain a competitive economy that unlocks prosperity for our residents, serves our communities, and is resilient in the face of global and national economic and climate headwinds. So, our residents, businesses and all our communities are at the heart of this plan.

Across the SCR, it is in Barnsley, Doncaster, Rotherham and Sheffield where the economy plays out – where people work, and where communities benefit from growth. Our priorities and interventions show how, together, we can create a stronger, greener and fairer economy, which benefits everyone and protects our environment.



How will we do this?

We will build our **innovation capacity and capabilities**, facilitating the incubation of ideas, creation of new businesses, and help them grow and access new markets.

We will build on our successful Advanced Manufacturing Innovation District and, across the City Region. We will enable the development of emerging clusters and maximise opportunities in **modern methods of construction, intelligent mobility, lightweighting, clean energy, digital and health**. We will open up our business base and supply chains so that we become more **outward facing and international**.

The SCR will be a home to a **world class technical education system** which focuses upon quality and progression and supports talent to flourish here. We recognise that we need to support our people so that they can reach their full potential. Also, we will deliver an **all-age careers, advice and guidance service** that meets the needs of our people and industry and enable our people to access training, upskill or reskill and progress in work. Finally, we will work with employers to ensure our people are supported to (re)train, upskill and progress in work and, Post-Covid-19, **that the health and wellbeing of our people at work is always paramount**.

Through this plan, we're making the following commitments.

We are going to...

secure the future for the next generation – nurturing our economy whilst protecting people and the environment, generating our own clean energy, reaching net-zero emissions by 2040 and becoming self-sustaining.

invest in our urban centres, in arts and culture and our natural capital.

build our transport infrastructure – so people and products can **move and trade** around our region, nation and the globe **with ease**.

invest in a **zero-carbon public transport system** with cycling and walking central to how we get about our region.

make **homes and land** available for families and businesses to locate and grow here, maximising our outstanding natural **environment and excellent quality of life**.

make **every penny count**. We will invest where we see social value; where we can create good jobs, grow businesses that help turn around our economy, that create opportunities for young people and that inspire the next generation.

By 2040 our economy will look very different.

Inclusive growth, underpinned by productivity gains will drive an

extra £7.6bn GVA



33,000

extra people in higher level jobs



People will live longer, healthier lives, improving by

for men and women in the SCR at birth.



3 years



A net **zero** carbon City Region

Our region's investment in **R&D** will be trebled, from £323m to

£1.1bn A YEAR

30,000

more people with higher levels skills and **9,000** people fewer with no skills or low qualifications.



Wages will have raised, particularly among the lowest-paid, by over

£1,500

Foreword from the LEP Chair

James Muir, Chair of the Sheffield City Region Local Enterprise Partnership Board.

Industrialising innovation and creating the skills sets to match are at the heart of this Strategic Economic Plan. These are the cornerstones in order to generate a significant uplift in productivity and spread wellbeing across as broad a spectrum of the Region's population as possible. Our ambition is to make South Yorkshire a leading contributor to the 4th Industrial Revolution and beyond.



Message from the Mayor

Dan Jarvis MP,
Mayor of the Sheffield City Region

We need to unlock the potential of people and businesses across South Yorkshire. This Strategic Economic Plan provides the blueprint for how we can come together to build a stronger, greener, fairer, more productive region – creating not just a bigger, but a better economy for all of us.



Introduction

This Strategic Economic Plan (SEP) sets out what needs to be done to grow the economy and transform the lives and wellbeing of our people. It focuses on the communities of Barnsley, Doncaster, Rotherham, and Sheffield and will inform what we do over the next 20 years.

This is unprecedented period of significant national and global socioeconomic change, with new opportunities in products, services, technology, and markets, providing potential for economic growth. These opportunities sit alongside the need to respond to climate change.

Our people and communities must have the opportunity to benefit from and take part in the new economy. This plan sets out how we will respond and ensure they can do this in a sustainable way.

The time is right to deliver an ambitious agenda and do things differently.





Figure 1: Map of the Sheffield City Region and Neighbouring Local Enterprise Partnerships

Source: SCR 2019

1. The Vision for 2040

Vision

The Sheffield City Region will grow an economy that works for everyone. We will develop inclusive and sustainable approaches that build on our innovation strengths and embrace the UK's 4th Industrial Revolution to contribute more to UK prosperity and enhance quality of life for all.

Overarching Policy Objectives

These policy objectives are the golden thread which run through the document:

Growth

Growing the economy for all.

Inclusion

Ensuring that everyone has an opportunity to contribute to and benefit from economic growth.

Sustainability

Driving low carbon opportunities within the economy and delivering net-zero emissions.

Outcomes



1. Our increasingly productive workforce and strategic investments lead to a growing economy.



2. Our people are well-connected to new job opportunities, with access to progression, supported by affordable living.



3. Healthy, safe, vibrant and green places offer environmental resilience alongside a high quality of life offer.

1.1 A vision and objectives that go beyond GVA

Our first SEP was focused on creating jobs and generating GVA. This made sense at that time. However, the world has moved on and experienced significant disruption. Our vision is about creating a stronger, greener and fairer future.

Productivity¹ is a strong determinant of quality of life and wellbeing. The evidence indicates that we must foster a much stronger culture of innovation to grow our productivity and accelerate the pace of economic growth.

We are building on our long-standing, world-famous industrial heritage to exploit the opportunities being created by the 4th Industrial Revolution (Industry 4.0)² agenda. The time is right to deliver this ambitious agenda, embracing global changes in the way we work, live, and travel. Now is the time to do things differently.

Importance of Productivity

When it comes to evaluating our economy, measuring the right thing matters. Productivity is an important measure of living standards and wellbeing in an economy. It quantifies the value that our people and businesses are contributing to the economy. SCR's productivity compares unfavourably to other UK LEP areas and other post-industrial regions in Europe.



¹SCR's productivity has increased more quickly in recent years than in some of our peer LEP areas, but there are two important caveats: Firstly, this productivity growth was from a relatively low base; and, secondly, this productivity growth has been driven largely by efficiency savings made in processes, rather than through the creation of more productive jobs.

²Industry 4.0 is the next phase in the digitisation of the economy, driven by four disruptions: the rise in data volumes, computational power, and connectivity, new power sources and networks; the emergence of analytics and business-intelligence capabilities; new forms of human-machine interaction and augmented-reality systems; and improvements in transferring digital instructions to the physical world.

1.2 Growth needs to be inclusive and consider quality

The Sheffield City Region Mayoral Combined Authority (MCA) is seeking to create inclusive economic growth. This approach recognises that communities and sectors have specific needs or require different interventions, drivers and empowerment for communities, local businesses and the public sector to enact change.

Economic growth does not automatically lead to vibrant centres, reductions in poverty, or increases in employment and/or earnings for low-skilled workers. Our policies and our investment decisions must actively make this so.

1.2.1 Tackling health inequalities

We know that pre- and post-Covid-19, healthy people drive healthy economies. Good health is an asset that reaps rewards in the workplace as it enables people to find and keep jobs, gain well-paid employment, improve skills, and enjoy a better quality of life. Poor health represents a huge cost in lost earning potential, lower productivity and tax revenue, and expense of public resources, while also having a significant impact on individuals and communities. We must maximise the benefits of growth for marginalised groups and places, in order to reduce social and health inequalities.

Inclusive growth

Inclusive growth is a model which enables as many people as possible to contribute to and benefit from prosperity. Inclusive growth is a response to the failure of traditional approaches, which can focus upon high value-added and high-wage sectors that produce benefits through 'trickle down'.

There are specific inclusion challenges for the SCR which include low productivity rates, low wages, in-work poverty, and a lack of higher-level occupations. The inclusive growth agenda is fast-moving and requires the development of bold and innovative strategies and a willingness to pilot experimental approaches to make a real difference.

Health and the SCR economy

Covid-19 has confirmed the close relationship between health and the economy. The pandemic has created further social and economic challenges but also opportunities to address inequalities, reshape the economy and link people to opportunity.

Long-term health conditions often lead to economic inactivity. In SCR, of those who are economically inactive, nearly 1 in 3 (53,800 people) are inactive due to long-term sickness. This is the largest contributor to economical inactivity.

Encouragingly, SCR has a higher proportion of economically inactive people who want to work: 27% compared to 20% nationally. This illustrates an aspiration for employment and highlights an opportunity to widen our labour market through tailored and local approaches to tackle worklessness and health-related absences.

SCR MCA has seen successes such as the Working Win trial, where an experimental control trial tested a new intensive employment support service for people, who are living with physical or mental ill health.

1.3 Growth should also support a net-zero carbon future

Climate change represents the single biggest threat to economic stability. Its widespread, unprecedented impacts will disproportionately burden the poorest and most vulnerable people. Over the past decade, the relationship between carbon emissions and economic growth appears to be decoupling. This reflects economic changes, including a shift from carbon-intensive manufacturing to more efficient service-based industries, growth of green technology sectors, and an increased focus on environmental sustainability within policy and decision making.



1.3.1 Decisions should enhance and protect the climate and natural capital

We must seek to mitigate and adapt to climate change and enhance our natural capital. A successful transition to a net-zero carbon economy is now essential for all modern, forward-looking economies and is critical for SCR's growth prospects. The transition will unlock numerous opportunities and through our business and research capabilities we are well placed to play a leading role.

1.3.2 Making bold and innovative decisions

Innovative approaches to investment can drive inclusive growth and create opportunities for people and organisations that are often excluded from traditional approaches to economic development. A fairer distribution of innovation needs to consider small and medium sized enterprises (SMEs) and organisations in the Voluntary, Community and Social Enterprise (VCSE) sector. Innovative decision making can also unlock benefits for organisations, in terms of providing extra capacity, developing new technologies, products and processes, leading to additional job creation, improved services and provision of new products that enhance quality of life. Innovation can also help build community wealth by generating jobs and developing local supply chains.

Climate and Environmental Sustainability

There is overwhelming evidence indicating that human activity has resulted in global climate change which now threatens our future and that of generations to come.

Environmental sustainability is the capacity for people to protect and enhance the natural environment. Our 'stock' of environmental assets which bring benefits to people is known as 'natural capital'.

SCR MCA's plans for environmental sustainability will set out a more comprehensive vision and set of policy actions on the transition to a net-zero carbon and climate change resilient economy.



1.4 Growing SCR's economy better – as a system

The economic evidence highlights that there are several interrelated factors that directly influence and enable innovation, enterprise, and growth – the cornerstones of the SCR economy. These enablers are skills and employability; mobility; digital connectivity; clean energy; land assets, housing and the built environment; and liveability.

Underpinning these enablers is the importance of locally distinctive places and vibrant centres. Across SCR it is in Barnsley, Doncaster, Rotherham, and Sheffield where the economy plays out³ – where people work, and where communities benefit from growth. Individual places have distinctive strengths and these need to be capitalised on to ensure that the benefits of economic growth reach all parts of our City Region.

This SEP provides an opportunity to transform the direction of the economy by tackling SCR's systemic and entrenched challenges⁴. We will work together to create a dynamic, inclusive, and sustainable economy. We will rise to new challenges and spread opportunity and prosperity to all our people.

Vibrant and urban centres

Reinvigorating SCR's urban centres requires the appropriate mix of economic, social and environmental interventions. Further investment in our urban centres should recognise their unique identities, culture, heritage, and creativity whilst also investing in their future and safety.



³Our thematic priority areas broadly map across to local authority economic strategies and the drivers of economic and productivity growth

⁴See Sheffield University's Productivity Insight Network Productivity synthesis 2019

1.5 New ways of working

How we work together matters. Transformation and success will require us to work differently:

a. Working together and leading

Our approach must move beyond the 'here and now' concerns that can so easily distract attention from longer-term aspirational efforts. SCR MCA's leadership will be collaborative and outward looking, working together with other anchor institutions.

b. Being innovative in our decision making and investments

Public sector funding and support are important drivers of innovation and economic growth. Our investment decisions must better harness the benefits for local economies. We will work collaboratively with partners, stakeholders, and the UK Government to attract and leverage private sector investment against public sector contributions to ensure our funding works harder and benefits our businesses, people, and communities.

c. Looking outwards to enhance global influence and competitiveness

SCR's economy is not sufficiently global⁵. Changing this is crucial. Future success will stem from our economy being more embedded in national and global supply chains, and innovation networks. We will be more outwards looking.

d. Promoting and projecting a culture of proactive excellence and confidence

We will work proactively to develop a culture of excellence and confidence in how we project ourselves as a City Region and switch from a narrative of comparative regional disadvantage to one of excellence and confidence.

e. Highlighting economic distinctiveness

In this global context, economic success stems from being distinctive and from being known for our successes. Key to this is ensuring that our specialisms form a compelling 'USP' and that individual and collective branding is recognisable and distinctive. This recognition attracts and retains talented people, investment, and businesses.

f. Act at the appropriate spatial level

To deliver our vision, SCR will be bolder in the Northern Powerhouse and within the UK Government. At a local level, devolution and local authority and anchor institution levers will unlock growth.

g. Present a unified position externally

Working together, we will achieve more than the sum of our parts and improve our national and international profile. Transformation requires considerable political investment to turn ambition into reality, utilising existing and new knowledge and building on the skills and experience of local communities.

⁵The City Region has one of the lowest shares of goods and service exports in England.

SCR MCA's emerging Sustainability Action Plan and Inclusion Plan both present a set of policies and actions on how we are tackling inequality and enabling the transition to a net-zero carbon economy. Alongside these, we also have, or are developing, other key strategies and plans including our Transport Strategy, Skills Strategy, Energy Strategy and International Plan. This SEP should, therefore, be considered as one of a suite of strategies and plans which inform and guide our actions.

1.5.1 Measuring outcomes

What we measure matters. The outcomes we seek and indicators that demonstrate progress towards delivery will be designed to better balance our investment decisions against growth, inclusion, and sustainability. A set of outcomes and indicators have been developed to measure progress. These are presented at the end of the document.



2. Vibrant and Resilient Places

By harnessing the strengths of SCR's people and places, we will create a more productive, inclusive, and green City Region where everyone, and every place, can succeed. The towns of Barnsley, Doncaster, and Rotherham, and Sheffield's city centre are well placed to build on their current entrepreneurial and creative advantages to unleash the full economic potential.



2.1 Collaboration and maximising opportunities

Barnsley, Rotherham, Doncaster and Sheffield are distinct places within the regional economy. But we share more than just administrative borders. A set of shared themes and opportunities characterise the region. These include:

- **Inclusion** – Success will be measured by more than economic growth. It is essential that we integrate as much of our population in our economy as possible. This means delivering an inclusive economic plan which shapes how all partners operate and make decisions.
- **Health** - Covid-19 pandemic has led to a sharper and sustained focus on public health. We have an opportunity to embed public health initiatives and messages to ensure a focus on wider determinants of health.
- **Net-Zero Carbon Economy** – Development in SCR must reflect our shared agendas around pursuing a net-zero carbon economy, including exploiting the opportunities around public transport and active travel. SCR MCA will work with partners to unlock capabilities and opportunities to drive the net-zero carbon agenda.
- **People** – All areas across SCR are determined to play a role in creating a City Region that everyone can be proud of. We will:
 - Create employment and develop skills, opportunity and foster progression across all ages.
 - Support people and businesses to grow and flourish with a focus on good jobs and well-paid work for the future.
 - Harness the determination of our people to make communities vibrant and confident.

- **Transport** – It is essential that our transport system connects communities to opportunities. Our main population centres must be better connected to one another and to future sites of major employment.

- **Greater density, liveability, arts and culture, and vibrancy in our urban centres** – Our urban centres in SCR are transforming, and a critical role of the SEP is to meet this challenge and future-proof them. This means advocating liveability, culture, flexibility, and mixed use to ensure that SCR's urban centres are attractive and sustainable. We will work with local areas to modernise and deliver transformational developments. Achieving individual and collective ambitions is a crucial element of the place-making approach to delivering an inclusive economy.

- **Environment** – The natural environment is an asset and its importance will grow as expectations of safe, liveable, and green spaces increase over time. The natural geography of our local authorities – which share the arterial River Don and its tributaries – provides opportunities and challenges. SCR MCA will work to enhance our natural capital, minimise impact, and improve resilience across all local areas. The River Don and its catchment in our region, provides a useful starting point for further unlocking our natural environment's potential.



Barnsley

- Prioritisation of urban centres
- Delivering ambitious Local Plans
- Improved transport connectivity
- Improving adult education and developing skills pathways
- Addressing health inequality and deprivation
- Community-led inclusive economy
- Net-zero carbon commitments
- Future proofing a digital Barnsley



Doncaster

- Fostering industry specialisms
- Growing priority areas
- Improving transport and digital connectivity
- Asset-based approach to community development
- Establishing a University City and driving skills and Lifelong Learning
- Being sustainable, connected, and vibrant
- Delivering environmental sustainability



Rotherham

- High quality housing and regeneration
- Densification of manufacturing
- Expanding the new manufacturing economy to deliver inclusive regeneration across the borough
- Connecting the town centre to the northern, eastern, and southern economic corridors
- Enhancing and harnessing green & blue infrastructure
- Enhance skills development and broaden opportunities for residents
- Develop inclusive growth through strengthened local supply chains



Sheffield

- Creating an inclusive wellbeing economy
- Increasing 'good' jobs and boosting business growth
- Supporting the growth of productive and competitive businesses
- Recognising the importance of place
- Consolidating Sheffield as a Magnet City to attract innovators, visitors and investment.
- Transformed transport connectivity linking people to jobs and cities to each other.
- Housing that provides quality, choice and affordability across the city
- Growing an environmentally sustainable, more resilient economy

2.2 Shared and Distinct Cultures

SCR has outstanding natural assets. It is a City Region that brings together strong and proud communities across both urban and rural settings. Our communities have a deep sense of place and identity. We are a region that is proud to play a role on the global stage. From the Snooker World Championships at the Crucible to the St Leger Festival in Doncaster, we host several national and international events each year that sit alongside industry, leading cultural productions and activities. SCR also has a thriving sports scene across football, both codes of rugby, swimming, boxing, athletics, cricket, cycling and outdoor sports. But to realise our full potential we need a transformational programme of investment in our cultural and tourism assets. Covid-19 has made the rationale for this even stronger.

2.2.1 Why do we need change?

Data on the contribution of SCR's creative industries to the economy suggests that it is significantly lower than many other Northern city regions⁶. Available data on visitors and spend suggests that South Yorkshire is often overlooked as a visitor destination and cultural and creative participation is lower compared to other city regions⁷. Arts, culture, and leisure play a fundamental role in the dynamism of SCR's city and towns. There are major assets and events across South Yorkshire which deserve more support and recognition. We will step up our arts and culture offer to improve the wellbeing of our people and the attractiveness of our places.

"You'll find jaw-dropping scenery, cities steeped in industrial heritage and hidden market towns in equal measures in South Yorkshire."

Visit Britain 2019

2.2.2 What do we need to do to drive change/create growth

SCR needs more recognition of its cultural strengths. Many positive economic and social benefits can arise from places having a strong cultural 'offer', and SCR can build on the rich cultural assets it already has to realise its full potential. Culture-led regeneration can generate economic benefits like creating employment, stimulating urban centre footfall, attracting and retaining inward investment and talented individuals, and supporting growth in the fast-growing creative sector. It can bring wider social benefits too, such as developing skills and knowledge of residents, and improving health, wellbeing and community cohesion. The visitor economy has the potential to be a key driver of the social, cultural, and economic life of the city region. As well as building on our world-class cultural facilities, SCR MCA will invest in our growing nascent strengths in local arts, culture, and heritage. SCR MCA will establish culture as a strategic socio-economic driver. This will be especially important as we seek to modernise and diversify our vibrant urban centre offer and increase civic pride.

⁶Latest figures from Arts Council and the Great Britain Tourism Survey. Furthermore, funding from national cultural bodies is lower per head than other similar city regions.

⁷We see that all four local authorities in the region are below the national average for the size of creative sectors and tourism visits in SCR have been lower than neighbouring metropolitan LEP areas for decades. According to national surveys, people in SCR are less likely than the average person in England to have visited a museum, used a public library or indeed had any arts engagement.

2.2.3 How do we create the transformative change needed?

Collaboration and innovation are needed for investment to unlock SCR's cultural and creative potential. To help us achieve this we will develop an arts and culture investment offer which will focus on the following themes:

Boosting Engagement

To widen the reach of benefits to our entire population, SCR MCA will support programmes that focus on boosting participation in arts and culture, targeting the groups not currently engaged.

Providing Leadership

Identifying international examples of best practice in developing an arts and cultural offer and building strategic partnerships with international cultural organisations. This includes building on the impact of our assets that deserve UK and worldwide recognition (e.g. through UNESCO) and positioning SCR and individual areas as leaders within their distinct heritage, tourism, and cultural offers.

Unlock Signature Investments

We will explore the role SCR can play in readying sizeable arts and culture projects for investment, and the potential to create a visitor and cultural heritage attraction of international repute. This could involve scaling up existing assets through finance, attracting new investment and exploring other support to boost competitiveness.

Promotion and Branding

SCR will invest in cultural infrastructure to ensure that events, festivals, and projects strengthen communities and maximise economic opportunities for all. South Yorkshire is potentially a world class visitor destination with some outstanding assets. SCR MCA will work with all local areas to develop a joint promotional strategy that reflects our strengths and opportunities.

Securing Investment

Through our relationships, we will encourage the business community to become patrons of arts and culture, encouraging them to invest whilst exploring mechanisms that encourage greater community participation.

3. Innovation, Enterprise and Growth

Innovation is at the heart of our plan to grow an economy that works for everyone.

3.1 Why does innovation matter?

Innovation has a transformative effect on the economy. In every economy around the world the most innovative firms and industries are also the most productive. SCR is seeking to accelerate the intensity of innovation activities in order to drive economic development.

Maintaining the status quo is not going to unlock transformational growth. We need incremental as well as transformational improvement of existing products, processes and services, alongside the discovery and commercialisation of new ideas, capabilities, and designs.

Increased investment is required to create the enabling conditions which will grow productivity and improve lives. To transform our economy, the city region must triple investment from £323 million to £1.1 billion to meet the UK Government's target of spending 2.4% of Gross Domestic Product (GDP) on R&D by 2027.

By offering structured innovation support to organisations of all sizes - whether those businesses are start-ups, established, high-tech, or traditional - we will develop inclusive and sustainable approaches that build on our innovation strengths.

Defining innovation

Innovation is the process of creating value from ideas. Developing new *products* and services requires *skills*. In turn, these create more jobs and growth. Innovation cannot be left to chance.

Innovation directly drives economic growth, helping organisations to scale-up and create employment. Innovation enables new ideas to be incubated, processes to be developed, and products to be commercialised. Innovation also expands services, increases capacity and creates growth opportunities in new and emerging markets.

Innovation needs to be taken seriously to accelerate productivity growth. That means having a clear idea of where and how making changes will move the economy forward, combined with a long-term commitment to implement change and make innovation happen.

3.2 The Sheffield City Region innovation approach

Our focus will be to increase the number of innovative firms and the number of firms innovating as a proportion of the whole. There will not be a one-size fits all policy to innovation, as we recognise that industries innovate differently.

To unlock transformational growth in our region, we need to accelerate the adoption of innovative products, processes and services in our businesses, alongside a transformational increase in the scaling up of both the discovery and commercialisation of new ideas, capabilities, and designs.

Innovation is a complex process which carries risks. It therefore needs careful and systematic management right through from discovery and incubation, to the commercialisation or spinning out stage.

SCR MCA's approach adopts the International Standards Organisation definition of innovation as follows, "the implementation of new or significantly improved products, goods or services, as well as processes, or new marketing methods".

We will promote collaboration between the public and private sector. To drive economic growth, we will also seek out efficiency, continuous improvement, and competitiveness in two key market opportunities for SCR:

- **Decarbonisation** - Noting the collective agreements around net-zero emissions commitments; and
- **Industry 4.0** - The trends towards automation and data exchanges, smart technologies, and complex computing.

A step change is needed to industrialise and commercialise value-added activities. By championing and incentivising innovation through public support, SCR MCA is recognising its leading role in encouraging and promoting modernisation of businesses and communities.

The SCR MCA innovation approach will be shaped by an acceptance of the following principles:

- **Inclusion and risk taking** – Through stakeholder engagement at key levels. Innovation leads to new discoveries and radical results. Either way the outcomes will be novel and will face risk and uncertainty, which SCR MCA's will be ready to support businesses to address.
- **Anchoring investment in the City Region** – To support the innovation focus. By driving change at each stage of business maturity, we will address and overcome flawed expectations that investment will trickle down by default, from major businesses to the whole supply chain.

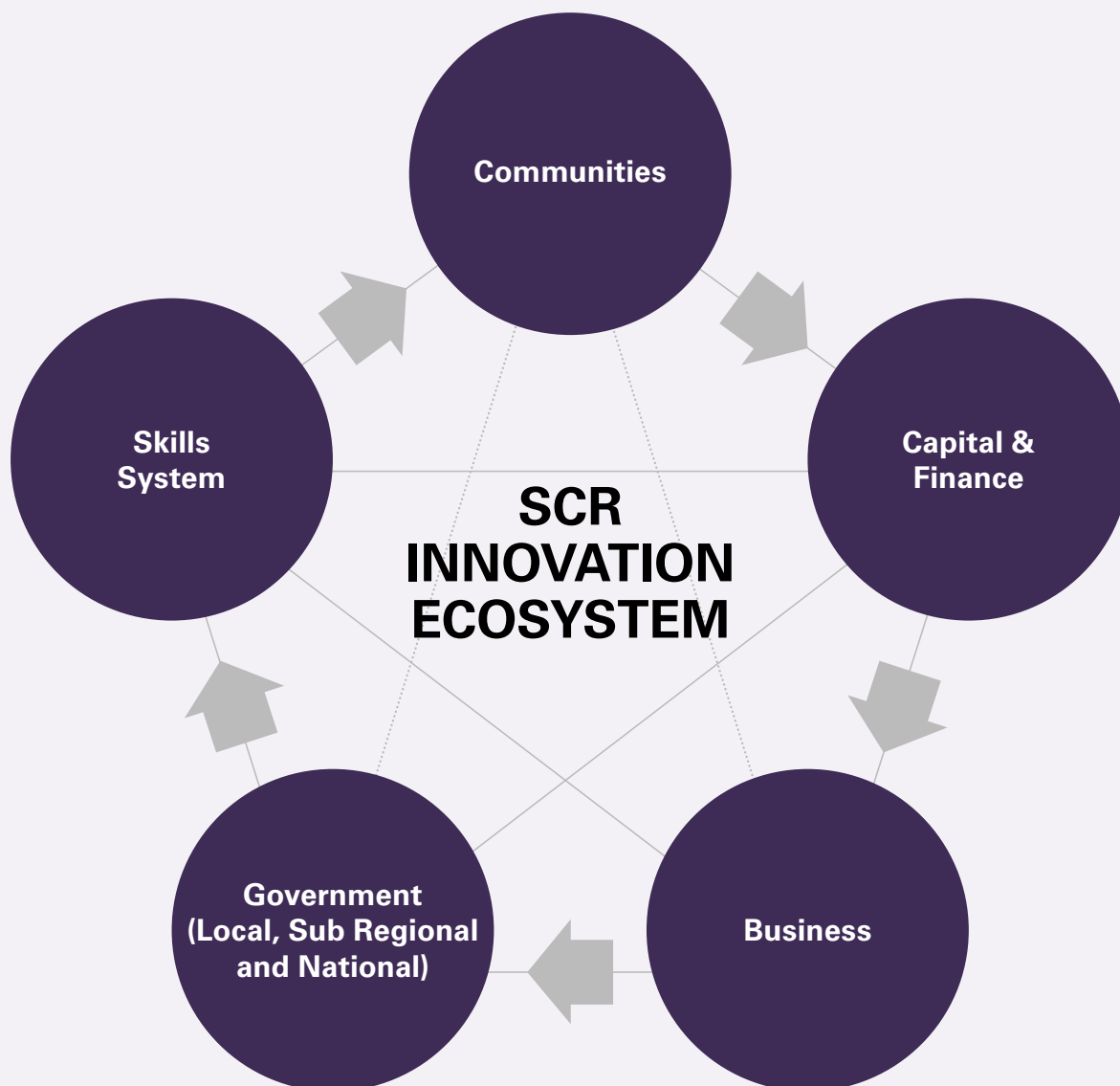
- **A joined-up approach to align research, development and skills** – Partnerships with organisations beyond universities can support innovation.
- **Our skills system must be reshaped to support the innovation system** - The skills system from school, further and higher education and then throughout the working life must be better focused on industry needs.
- **All industries can be innovative** - Start-ups exist in all sectors and businesses can be innovative and adopt technology in all sectors. Covid-19 has also driven innovation in several industries. Evidence shows that some of our most productive businesses are in sectors that are traditionally thought of as unproductive.
- **The linkages and density of activity is important** - Increasing the density of innovative firms is important for the formal and informal links of businesses. SCR MCA recognises that proximity is crucial for knowledge exchange.

Collaboration is essential, bringing different communities together to innovate, connecting small and large businesses, and creating linkages across industrial sectors where risks are shared to enhance competitive advantage.

SCR's innovation ecosystem includes a range of stakeholders, such as the UK Government, educational institutions, firms, entrepreneurs, business support providers and mentors, communities, and investors. Each one plays a significant role in creating value and helping to ensure that innovation is harnessed with new ideas transformed into reality.



This ecosystem creates a platform for the flow of information and resources and there are four approaches to innovation which SCR will embrace.



1. Traditional Innovation

For firms that follow the traditional model, Research and Development (R&D) is key. In these sectors, new products, services or processes often depend on scientific breakthroughs. Innovation requires substantial scientific expertise, long timelines, and investment in capital and equipment.

2. Unconventional Innovation

In many sectors, the traditional innovation process does not fit. Firms in these sectors use a blend of market channels, traditional research and customer testing to develop new products, services or processes. Innovation in this model is not linear but includes feedback loops.

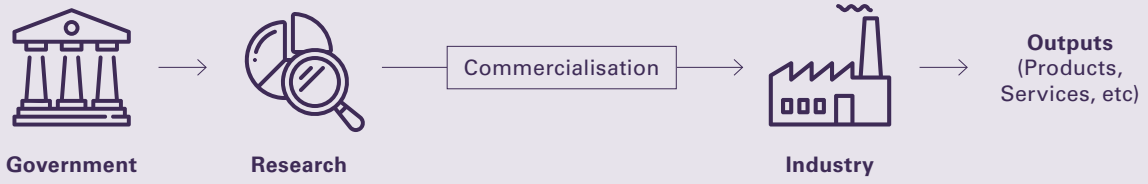
3. Mixed Industry Innovation

Many emerging sectors use different elements which rely on institutional approaches, formal and informal channels to achieve innovation. Innovation is not linked directly to academic research but is tested and pushed through engagement with suppliers and customers.

4. People driven innovation

Often innovation can be driven by communities and the exchange of ideas through informal networks as well as with formal institutions. Innovation can come from markets, consumers, suppliers, community groups, social enterprises as well as businesses.

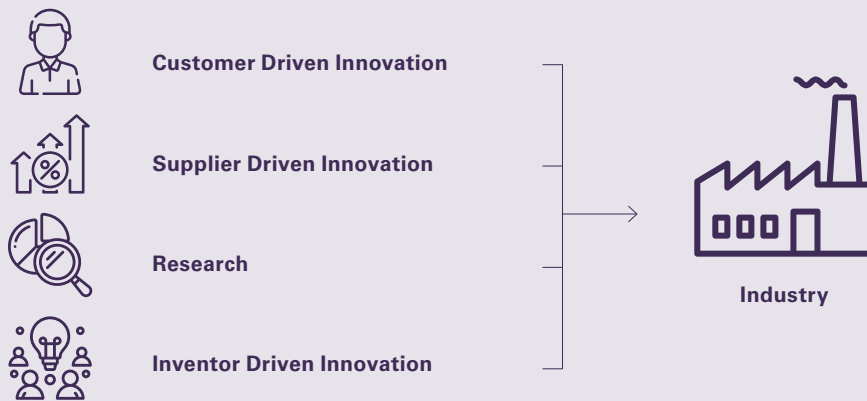
1. Traditional Innovation (e.g. manufacturing)



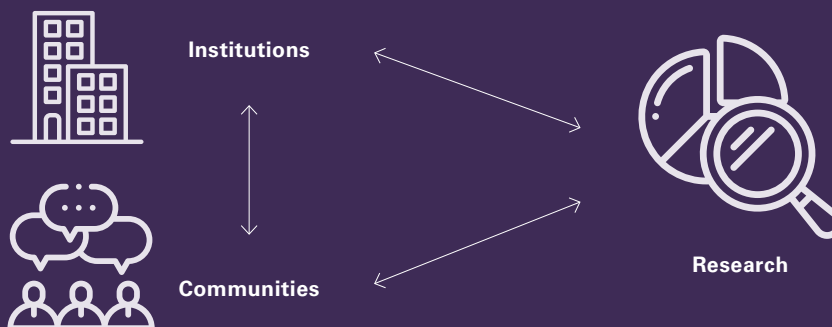
2. Unconventional Innovation (e.g. materials or chemicals)



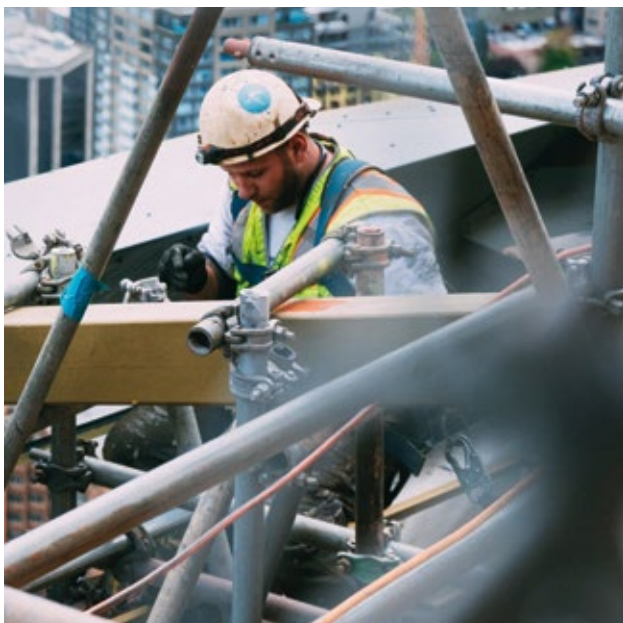
3. Mixed Industry Innovation (e.g. technology)



4. People driven innovation (e.g. healthcare)



3.3 Building on our capabilities



The City Region has a well-established but relatively small innovation network that contains world-class capabilities, alongside emerging specialisms and services. The strength of this foundation stems from our supply chains, existing specialisms, and active networks.

Building our innovation capacity is crucial to meet growing demand for the digital and service sectors that we lead; such as learning and educational technology, wellness and health, and advanced materials and composites. We also have our traditional innovation networks and communities. For example, our manufacturers, steelmakers and forgers are established suppliers to global industries in advanced manufacturing, construction, and rail. These stakeholders are a core part of our established capability and global reputation for making and distributing excellent products and services.

Advanced Manufacturing and Engineering

The Advanced Manufacturing Innovation District (AMID) and adjacent business and science parks connect world-class capabilities and R&D assets in materials, clean energy, and advanced wellness. At AMID's heart is the Advanced Manufacturing Park (AMP), and the University of Sheffield's Advanced Manufacturing Research Centre (AMRC). Since the early 2000s the AMP has helped change perceptions of SCR's economy from a place for low-cost production to a location of choice for high-value, knowledge-driven engineering, manufacturing research, and skills development.

Intelligent Mobility

As the pioneer of UK railways, Doncaster is at the forefront of intelligent mobility and the infrastructure of tomorrow. The borough is one of the most important rail hubs in the UK and at the centre of developing the next generation of rail skills and expertise. As well as skills and research, Doncaster offers access to an 8,000 strong, highly skilled rail workforce and is home to the National College for Advanced Transport & Infrastructure and a new University Technical College (UTC) specialising in digital design and engineering.

Construction

This sector has the most businesses in SCR (over 8,200) and there are several important companies and supply chains which link into this sector. The potential of the sector is highlighted by University of Sheffield's Integrated Civil and Infrastructure Research (ICAIR) Centre. The centre is translating disruptive technologies from other sectors, including advanced manufacturing,

robotics and autonomous systems and applying it to the construction and infrastructure sector. This provides the opportunity to transform the intelligence, resilience and resource-efficiency of commercial and residential buildings and other infrastructure, benefitting both our people and climate. With the strengths in this industry, SCR is an obvious location for a Centre for Innovation Excellence, focusing on Modern Methods of Construction (MMC) helping to develop new materials and skills needed in the construction industry to respond to market trends.

Health

Covid-19 and its consequences have hit most vulnerable populations the hardest. With a background in healthcare technology, sport research and healthcare service design and design we are a City Region that can help tackle global health challenges. The health sector has over 4,000 employers in SCR and has established a reputation for excellence in the development of innovative healthcare technologies. The City Region is host to many world-leading healthcare technology companies including Braun, Swann Morton, Orchid and JRI Orthopaedics and the only Olympic Legacy Park in the world outside of a host city.

The National Centre for Sport & Exercise Medicine is a globally leading transformation programme co-locating health and activity in bespoke community facilities, utilising the unique demographic of Sheffield as a living laboratory for research and innovation. Sheffield Hallam University's Advanced Wellbeing Research Centre (AWRC) builds on this capability to undertake world-class research in physical activity. The AWRC also develops collaborative community, academic and industry

partnerships to drive innovation and co-design products, interventions and services that transform the social, behavioural and environmental determinants of health.

Digital

Digital is changing how education, engineering, and manufacturing operates. The City Region has a lot to offer entrepreneurs, from Sheffield's Digital Coalition and Dot Sheffield to Barnsley's Digital Media Centre. There is a growing value chain which is delivering specialist training to support growth in the sector and a thriving network of over 100 companies, incubators and organisations; all of which make up our digital media and technology ecosystem. Over 60% of the UK's educational technology capacity is in Sheffield, and we are the home of national and globally significant businesses like The Floop, Sumo Digital, Wandisco, Plusnet, and 3Squared.

Building on our capabilities, our approach will focus on the core areas set out below:

- **Increasing density in our successful innovation district (AMID) and emerging clusters**
- **Supporting businesses to flourish and drive economic growth**
- **Driving supply chain development and competitiveness regionally and nationally**
- **Ensuring our innovation approach benefits the whole City Region**

3.3.1 Increasing density in our successful innovation district (AMID) and emerging clusters

Working closely with the UK Government and local authorities, we will co-develop innovation clusters. We will support training practitioners and university researchers, alongside industry to increase the mix of activity, and we will collaborate with entrepreneurs and innovators.

We will accelerate innovation-led economic growth by supporting much greater density to harness the benefits of clustering. In SCR, the most established example of this is AMID, a world leading Innovation District, translating applied research and precision engineering strengths into a globally significant manufacturing centre of excellence that drives new business activity, creates jobs, and generates additional income for the region.

The AMRC's model of university-industry collaboration has driven the agglomeration of technology firms within AMID. Similarly, the Olympic Legacy Park, with the AWRC as its central node, is emulating the AMRC model by attracting businesses to co-locate and collaborate with academic researchers at the AWRC and other research centres in AMID; including the Orthopaedic and Rehabilitation Research and Innovation Centre and the Centre of Child Health and Technology.

There are other emerging clusters in SCR, and we will work with partners to develop these into hubs of innovation excellence:

Barnsley – The Digital Media Centre (DMC) has seen significant growth over the last three years as a hub for digital and creative businesses, and a destination for events and business support. A key factor in the growth of the DMC has been the 'TechTown' project, which is creating bold plans for the future of Barnsley. TechTown is creating a digital ecosystem by connecting people from the public and private sector, entrepreneurs and education providers to share and benefit from digital expertise.

Doncaster – There are opportunities to build on current expertise and market opportunities in intelligent mobility, higher education, rail engineering, creative and digital, health, and green technologies in three key geographical areas:

- o Station Gateway & Waterside;
- o Unity; and,
- o Doncaster Sheffield Airport (DSA).

Sheffield City Centre is already a major professional services hub and employment centre, and there is an opportunity to increase density and create a strong digital and creative technologies innovation cluster, building on Sheffield's leadership in Education Technology (EdTech) and complementarities to the Digital Campus in Barnsley.

There is further potential to establish other innovation assets and nodes across the City Region, for example a Modern Methods of Construction Centre of Excellence and a Preventative Medicine Centre to build on our expertise and provide an anchor for innovation and business activity. We will invest in new anchor institutions and support existing ones.

3.3.2 Supporting businesses to flourish and drive economic growth

SCR MCA will focus on interventions that incentivise innovation and enable entrepreneurs and enterprises to locate here. This will involve us being more risk tolerant to achieve our policy objectives by targeting innovation that actively influences the direction and pace of growth.

Enabling our business base to improve and grow requires increased trade (and export) with global markets. We will support and promote entrepreneurs and businesses to take innovative ideas to market. To achieve this we will:

- Create the conditions to allow more entrepreneurs to develop and launch solutions quicker and be in a stronger position to scale them up.
- Establish new partnerships with businesses, build strategic relationships and facilitate formal and informal networks that drive innovation;
- Boost business-academic-public sector collaborations in translational research;
- Welcome risk-taking – inherent in the innovation process – by recognising that the state is a legitimate actor in the innovation process;
- Develop investment mechanisms so that the public and private sectors share risks and rewards.
- Drive innovation through a range of activities, from financial incentives and investments, branding, influencing, networking, convening, and much more;

- Deliver growth and scale-up support to help companies develop strategic plans, export and coordinate access to investment as well as expert advice;
- Work closely with the UK research councils to build collaborative initiatives that harness support from public institutes such as the British Business Bank, InnovateUK and social enterprise funding. Private and third sector funding is vital during the commercial stages of innovation; we will offer support to maximise benefits for organisation that invest in innovation (e.g. ranging from training support to R&D tax credits); and,
- Identify innovation potential at all levels of scale and maturity, exploiting investible solutions. This could mean, seeding first stage R&D investment to accelerate competitive advantage to targeted high-value markets. It could also mean supporting firms adopting technology to deliver innovative adult social care in communities.



3.3.3 Driving supply chain development and competitiveness

SCR MCA intends to build on established supply chains and create new global value-chains of technology, services and skills. We will build strategic relationships with targeted businesses. We will also build the capability of local businesses, to enable them to participate in supply chains beyond our City Region and work collaboratively so they can compete nationally and internationally. This will create opportunities for businesses to diversify into new sectors or new export markets. We believe this will result in increased open new markets, especially in non-EU markets in a post-Brexit world. Our businesses will be better placed to take advantage of reshoring opportunities, to streamline the distribution of goods, reduce risks, delays and costs, benefit the environment, and create more jobs.

Going beyond R&D

NESTA's work on inclusive innovation highlights three main strands:

- Broadening participation in the innovation economy
- Ensuring that the benefits of innovation are shared by all
- Involving the public in shaping innovation policy

These three areas provide the strategic lens to test our investments in innovation.



There are three stages to improving our supply chain capability:

Stage 1

Supply Chain Readiness

Linking businesses together and raising the awareness levels of business systems and processes required to compete. This will enable businesses to acquire the right skills, undertake business planning and focus on strategy, gain accreditations, and implement quality management systems or other specific requirements.

Stage 2

Supply Chain Development

This will include supporting those businesses that are nearly ready to grow and/or win bigger and more valuable supply opportunities. This may also include some aspects of the supply readiness programme or assistance with diversifying their product range or target markets. To create the right environment for strong supply-chains in SCR, we will support value-adding activities and develop practical outcomes from collaboration with world leading research programmes⁸.

Stage 3

Opportunity Management

We will work together to connect more businesses to opportunities. This could take many forms such as local procurement, Meet the Buyer events or developing regional Original Equipment Manufacturer challenges for local supply chains to address. We will continue to ensure we are at the leading edge of technology development, positioning the SCR globally, to attract inward investment⁹. SCR MCA will also build new and expand on existing global linkages to showcase our assets and capabilities and unlock economic opportunities.

⁸Such as working with the Massachusetts Institute of Technology's UK REAP project

⁹Such as through AMID's membership of the Global Institute on Innovation Districts

3.3.4 Ensuring our innovation approach benefits the whole City Region

Innovation is inherently disruptive, creating winners and losers. It often does not reach disadvantaged groups. There are two aspects to our inclusive innovation ethos that address this. Firstly, we will aim to enable all people to participate in delivering innovation initiatives. We will deliver more inclusive and diverse innovation systems. To do this, we must ensure that the backgrounds and skills of decision-makers within the ecosystem are also diverse.

Secondly, when making investments, we will establish an upfront social contract based on our terms of business and an employment charter which will govern both stakeholder behaviours and policy outcomes.

Ensuring that everyone has a fair opportunity to contribute is important. We will focus on the diffusion of innovation to disadvantaged groups and enable fair access to entrepreneurship. Also, our approach will embrace university originated innovation as well as wider and informal sources. We will work across the economy, including foundational industries as well as high-end tech. Our approach is about helping businesses and people to do better – we will facilitate this by providing the enabling conditions needed for them to flourish.

Through an inclusive approach to employer commitments we will focus on the following areas to shape our terms of engagement:

- Environmental commitments towards a net-zero target
- Driving social value through procurement and supply chain activity
- Recruitment and employment of apprentices (representative of society)
- Commitment to achieving a gender balance in management
- Employer commitment to skills and careers
- The provision of work placements and internships
- A minimum living wage for all employees, including apprentices



Key intervention areas:

- Build strategic partnerships with businesses and entrepreneurs, unlocking growth contingent on social impact and supporting our transition to a net-zero carbon economy by establishing a social contract and an employment charter.
- Bring together different communities to innovate together by connecting small and large businesses and creating linkages across industrial sectors where risks are shared to enhance competitive advantage.
- Focus interventions that incentivise innovation and enable entrepreneurs and enterprises to locate here.
- Accelerate innovation-led growth by supporting much greater density to harness the benefits of clustering.
- Build the capability of local businesses, to enable them to participate in supply chains beyond our City Region and work collaboratively so they can compete nationally and internationally.



4. Skills, Education & Employment

To deliver an innovative and productive economy we must invest in our training facilities, we must unlock private sector investment in workforce development, and we must invest directly in activity that helps people to progress.

4.1 Why do we need change?

At the moment the City Region's skills, education and employment system is not working. The SCR faces several skills and employability challenges, some of which are summarised below:

- **Attainment and progression** – Despite examples of world-class teaching facilities and training, the quality of education varies widely across all levels. SCR lags behind the national averages across all levels of formal education for many indicators (e.g. English and Maths, Progress and Attainment 8).
- **The workforce is typified by a lower qualification profile** – Productive economies have a highly qualified and skilled workforce. Our system lacks the progression routes and the employment opportunities for these people. Low qualification levels are holding back economic growth and innovation.
- **Workers' health affects productivity and economic prosperity** – The disruption experienced during Covid-19 pandemic confirms the close link between employment and health. People can be prevented from working due to either their own ill health or the health of someone they have caring responsibilities for. This may result in absenteeism and presenteeism (working while sick), time taken to attend hospital appointments, early

retirement or premature deaths, all of which impact on productivity and limit personal resources and spending power. Economic performance is also an important wider determinant of health. The relationship between schools, colleges, training providers and higher education with industry is not strong enough. We do not do enough to inspire our young people, or to support people to move into work or to progress in their career. At the higher level, our leadership and management skills are weak.



- **Apprenticeship growth is largely in low pay sectors** – Whilst SCR has a comparatively high level of apprenticeships compared to other areas, and an economic base which could support further growth, there are constraints on the capacity to grow, and challenges with levels and subjects studied. For example, it is estimated that around 70% of apprentice starts in SCR are aligned to low pay sectors¹⁰.

- **Higher rates of poverty and worklessness** – Higher unemployment rates and higher levels of economic inactivity¹¹ underpin poverty in the City Region. The rate of young people living in workless households stands at 5.7% above the national average¹². This can restrict the realisation of aspiration for generations.

- **Low levels of diversity** – Companies that commit to diverse leadership are more successful¹³. There are diversity challenges, with women and certain ethnic groups underrepresented across the labour market. The current lack of diversity in the City Region’s workforce constrains productivity and business performance.

- **Mismatches in the employment and skills system** – A lack of alignment between business and education and training providers damage the SCR economy and there are huge opportunities to align these better¹⁴. This mismatch limits the employment and earnings opportunities of individuals and prevent companies from maximising their performance¹⁵. Mismatches have been identified in technical education, graduate employment, and flexible working (e.g. the gig economy) which can limit progression.

According to ONS 47% of SCR jobs are at risk of automation over the next two decades, compared to 39% in London¹⁶. Those with low qualifications are more likely to be unemployed in the future. The sectors and occupations at the highest risk are unfortunately the same sectors that have created the most jobs in SCR over the last decade. The prospects for a low qualification, low wage economy are concerning and urgent intervention and improvement is needed.



¹⁰SCR Analysis of DfE data and ONS: automation jobs index – 2019.

¹¹This is the case even when students are taken out of the datasets.

¹²ONS Annual Population Survey 2019

¹³See for example, the McKinsey report on why diversity matters, available here: <https://www.mckinsey.com/business-functions/organization/our-insights/why-diversity-matters>

¹⁴There are multiple complexities, but one example is the ‘gig economy’ which provides opportunities for those looking for flexible workers (e.g. part-time carers of children) but also faces challenges with pay and progression.

¹⁵BIS Research Paper Number 265 Research to understand the extent, nature and impact of skills mismatches in the economy (2016)

¹⁶ONS: automation jobs index - 2019

4.2.1 The assets on which we must build

Despite severe challenges, the City Region has some major skills and employment advantages and assets to build upon, a host of forward-thinking businesses, and pioneering skills and employment programmes.

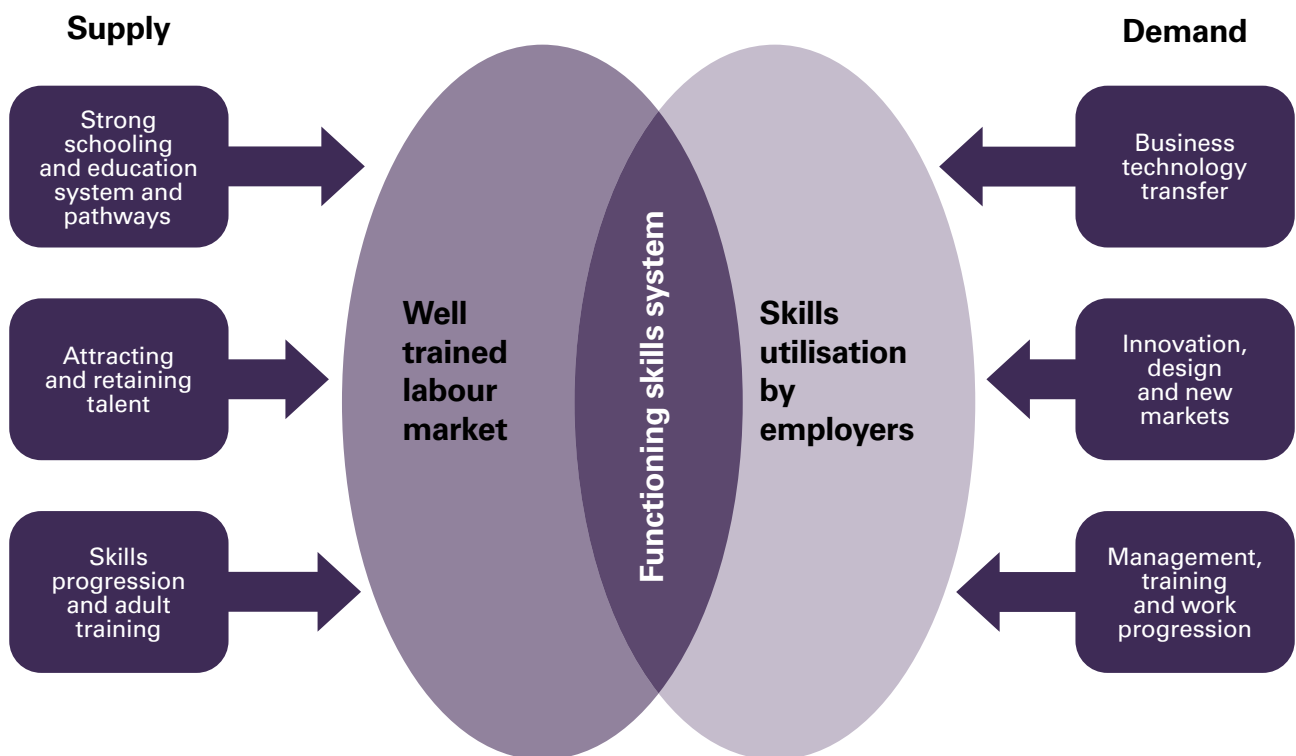
- SCR has two world-class Universities:
 - o Sheffield Hallam - the 10th largest university in the UK with a range of research centres, institutes, and award-winning teaching provision.
 - o The University of Sheffield - a world top-100 and Russell Group university renowned for the excellence, impact, and distinctiveness of its research-led learning and teaching.
- We have industry leading Further Education and specialist colleges that are leading the technical education and apprenticeship agenda.
- Our University Technical Colleges are bucking the trend in terms of learner numbers, progression of students and employer focused and led curriculum.
- SCR is leading the way in the innovative delivery of Key Stage 3 and 4 with several schools experimenting with different learning approaches and seeing great inspection results driven by qualification achievement and attendances.
- Employers in SCR are supporting the creation of a high skilled workforce through a variety of means. Several leading examples include:
 - o Working with schools to deliver projects to equip students with industry skills to take forward in their careers.
 - o Creating organisation-wide approaches to apprentice recruitment.
 - o Investing in workforce progression to supporting the needs of the workforce and business.
 - o Recognising that investing in the health and wellbeing of staff can greatly improve productivity.
- SCR's Health Led Employment Trial is the largest of its type to test the effectiveness of combining health and employment support. Over 6,000 people have joined the trial and long-lasting relations have been developed with primary and secondary health referring agencies.

4.3 What do we need to do to create transformative change?

Building on the City Region's assets we will develop an employer-led World Class Technical (and Vocational) Education System that will match the traditional academic education route in terms of outcomes and relevance for our people and our economy.

We need to ensure that our people develop the skills required for the economy to thrive – so that employers' demand for skills is matched by a supply of sufficiently qualified workers.

Figure 2: Balanced Skills Supply and Demand



Source: Adapted from OECD Local Skills Strategies 2019

Supply

To tackle our supply side challenges, we will focus our resources on:

- Investing in our vocational education infrastructure, creating better facilities that are more aligned to the needs of our businesses.
- Incentivising excellence in teaching and the development of new collaborative learning delivery models.
- Targeting adult vocational education skills funding towards provision that explicitly meets the needs of employers and learners.
- Developing a new approach to lifelong learning to ensure our learners can continue to respond to the changing needs of the economy; and develop new support programmes that provide a clear pathway for those out of work to get into, stay and then progress in work.
- Design and deliver an all-age careers service that will provide our people with the information, guidance and advice they need to make informed choices, to reskill or upskill, and to access opportunities across the economy.
- Building our intelligence and data to support intelligent decision making at every level.

Demand

To tackle our demand side challenges, we will focus our resources on:

- Creating good jobs and securing commitment from the wider SCR business base to invest in the development of technical skills across SCR.
- Working with pioneering employers to widen and unlock skills potential and create progression opportunities as part of any investment to grow such businesses.
- Ensure employers are better integrated in the skills system so they can co-invest, co-design, co-deliver, and co-govern to meet the needs of our economy.
- Work with businesses to develop strategies to unlock the provision of flexible working and supportive initiatives for our workforce.
- Create leadership and management development opportunities to support talent to flourish here.
- Establish a social value framework to support investment in skills.
- Work with employers to develop progressive HR strategies which enable greater diversity, and reward training with more progression opportunities and financial incentives.
- Provide connections between businesses and academic communities to enhance commercial aspirations around global expansion (e.g. language skills, capacity and international links).
- Stimulating the development of bespoke training and up-skilling packages to employers.

Key intervention areas:

- Establishing SCR as a place for world class technical education with leadership and investment;
- Deliver an all-age careers service that is truly best in class and meets the needs of our people and employers;
- Deep and effective collaborations between businesses, education, and training providers to drive skills development;
- Investment in our apprenticeship system to build upon existing high-quality education assets;
- Maximising devolution levers and investment to support education quality and progression;
- Working strategically with the UK Government, institutions, and businesses to raise aspirations, careers knowledge and investment in skills;
- Building the data and evidence, supporting and driving collaboration, and brokering expertise.



5. Clean Energy & Net-Zero

SCR has adopted challenging targets to achieving a net-zero carbon economy by 2040, with local partners also setting individual targets. These targets provide a focus for sustained investment. Key priorities include reducing carbon emissions, generating low carbon energy, improving the energy efficiency and sustainability of buildings, and accelerating the transition to ultra-low or zero-emission transport.

Energy plays a key role in SCR's economy, powering its businesses, infrastructure and homes. Energy security and increasing costs negatively impact on business productivity and families (e.g. deepening household fuel poverty). Furthermore, the need to address climate change requires urgent and far-reaching changes.

5.1 Why do we need change?

There are several challenges that will need to be overcome to achieve net-zero carbon emissions¹⁷:

- **A large proportion of SCR's 52,000 SMEs are not actively improving their energy efficiency.**
- **The size of the green economy is currently lower than other city-regions** and on current trends less than 1% of the 50,000 new jobs in the energy sector in the next 15 years are expected to be in the SCR.
- **There is a lack of electric vehicle charging and hydrogen refueling stations.** Yorkshire and Humber has only 5% of the UK's electric vehicle (EV) charging points and only one hydrogen refueling point.
- **Only 20% of electricity consumed in SCR is generated in the City Region.** This provides an opportunity to vastly increase the amount of renewable energy generation and storage capacity in the region and become more resilient.
- **Two-thirds of houses in SCR have an Energy Performance Certificate rating below C¹⁸.** Most houses will require additional insulation measures and/or low carbon heating systems to be installed if the net-zero target is to be met.
- **SCR has 28 Air Quality Management Areas.** Carbon emissions from vehicles and public transport are a significant contributor to localised air pollution.



¹⁷Major changes will take time, which means that fossil fuels will continue to be part of the UK and SCR's energy mix for the short to medium term.

¹⁸Forthcoming SCR Draft Energy Strategy (2020)

5.2 What do we need to do to create change?

The opportunity to transform energy generation, supply, storage, and use will create benefits for the local economy, our communities and the environment. To maximise these, we will focus on:

1. Driving clean growth and decarbonisation in our local businesses, whilst maintaining their competitiveness.
2. Promoting and enabling investment and innovation in low carbon energy generation, distribution, and storage.
3. Improving the energy efficiency and sustainability of our built environment.
4. Accelerate the transition to ultra-low emission vehicles and transport systems.

5.2.1 Driving clean growth in SCR's businesses

The low carbon economy is projected to grow four times faster than the wider UK economy²⁰. Providing the platform for clean growth makes good business sense as it drives both productivity and skills. Energy intensive businesses within SCR need to be supported to benefit from transformational projects and innovative technologies that deliver increased productivity and significant cost savings, to benefit their bottom-line and our environment. Delivering clean growth will also require skilled workers at all levels, providing the opportunity for its benefits to be enjoyed across SCR.

Green Hydrogen

A key economic focus in the move towards a net-zero carbon economy is 'green' hydrogen. This is hydrogen from electrolysis using renewable electricity. ITM Power, based in Sheffield, has the largest electrolyser manufacturing site in the world thus giving SCR an unrivalled advantage in this area.

Opportunities for green hydrogen include:

- **Vehicles** – fuelling larger vehicles like buses and HGVs which make battery use unnecessary;
- **Resilience** – more efficient storing of hydrogen produced from curtailed renewable electricity;
- **Industry** – producing hydrogen on-site when electricity costs are low can reduce costs compared to fossil gas.
- **Heating** – decarbonising the gas networks by increasing the proportion of hydrogen.

5.2.2 Promoting investment and innovation in low carbon energy generation, distribution and storage technologies

Smart technologies are increasingly important in alleviating strain on the electricity network and meeting the demands of new patterns and types of energy consumption. This is achieved by shifting some of the demand to off-peak times, matching demand with generation, and digitising energy. This reduces the extent to which large scale replacement and upgrading works will be needed on the electricity network thus keeping costs down for consumers. With a global movement towards decentralised energy generation and use, the time is right for SCR to invest in a 'smart grid'.

Whilst energy use can be minimised through increased efficiency and the use of smart technologies, SCR also needs to ensure that more of the energy consumed in the City Region has been generated by renewable sources and that the security of supply has been increased.



The key opportunities that exist in SCR, in addition to our green hydrogen capabilities are:

The UK Atomic Energy Authority (UKAEA)'s Research Facility – with this facility and other related assets like the Nuclear AMRC, the SCR is in a strong position to commercialise nuclear fusion as a major source of low-carbon electricity in the years ahead. In SCR, the opportunity is to grow the supply chain to support this growing industry.

Mine Water – Mine Water could potentially offer resilience and energy supply to micro heat networks for those communities that are not connected to urban heat networks. South Yorkshire has over 400 mines and is ideally placed to be a testbed for Mine Water technology. Our mining assets are exploited at pace so that the City Region becomes a front runner in developing former coalmines for use in energy schemes and thereafter benefitting from a variety of first-mover advantages in the market. The Coal Authority estimates that the heat stored in the UK mine network could heat 180 million homes for 100 years²¹. With most of South Yorkshire's mines located in disadvantaged communities, there are wider benefits, not least supplying cheaper energy to households that are more susceptible to fuel poverty.

²¹Source: UK Coal Authority 2019

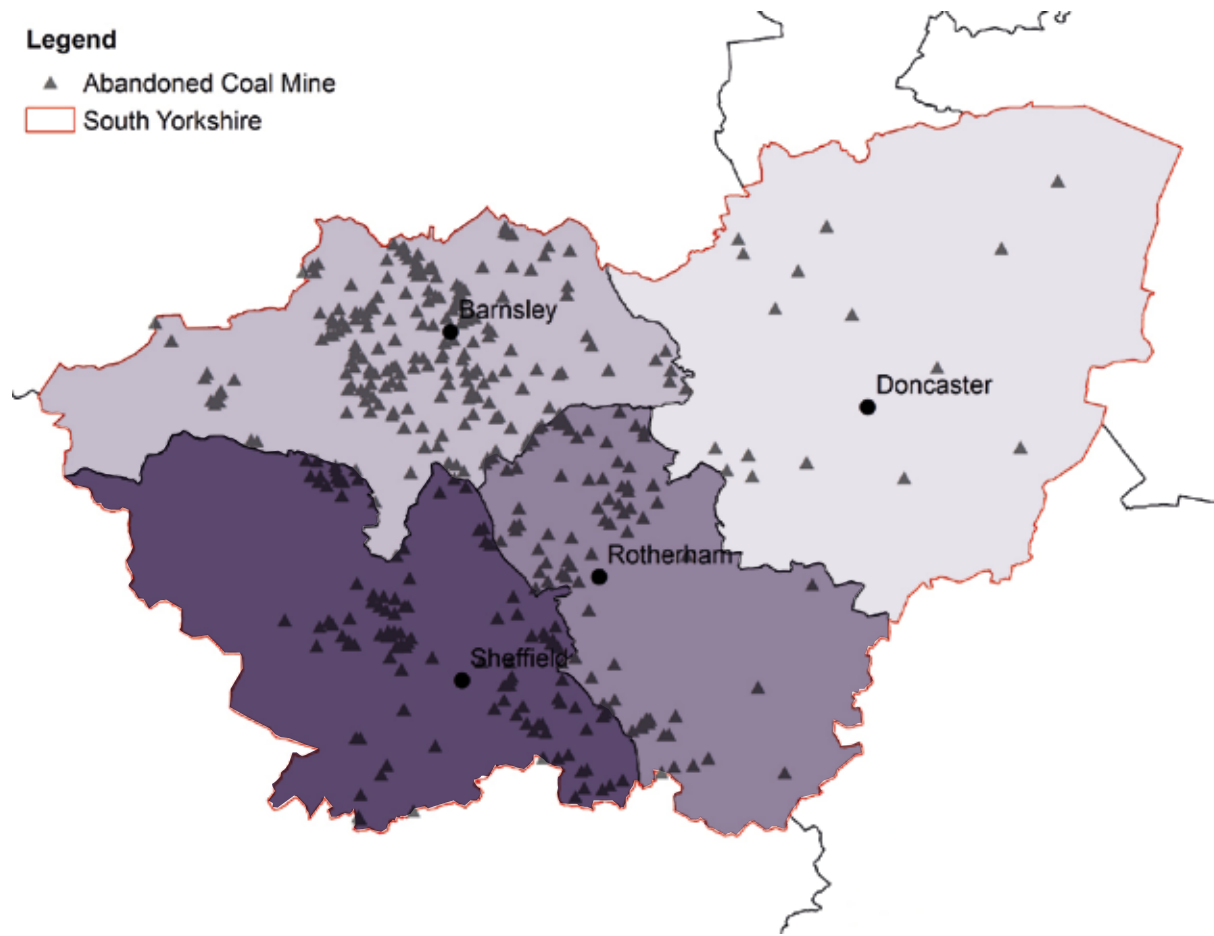


Figure 3: Map of mines in South Yorkshire

Heat Networks – SCR is already leading the way on heat networks, with Sheffield being home to one of the most developed examples in the UK. Given the existing industrial activity, there is significant potential to capture waste heat and feed this into a regional portfolio of low carbon, district heat networks. Heat networks can deliver significant local benefits including alleviating fuel poverty, improving air quality, reducing costs, and supporting job creation.

5.2.3 Improving the energy efficiency and sustainability of our built environment

Enhanced energy efficiency has the potential to significantly reduce fuel bills, protecting residents against rising energy prices and reducing fuel poverty. As fuel poverty and health problems are intrinsically linked, it is crucial that the affordability of energy is addressed. A strategic approach to tackle fuel poverty and improve energy inefficient dwellings must cover both existing and new homes. New homes must be built to better sustainability and energy efficiency standards; incorporating renewable energy systems into the design and using modern methods of construction (MMC) wherever possible to increase construction productivity.

Existing homes - which will make up around 90% of the housing stock in 2050 - will need better energy efficiency, and the potential for microgeneration opportunities must be explored through increased public and private investment.

Community energy projects are a perfect way to accelerate the deployment of distributed energy, putting our people at the heart of energy systems. These schemes can deliver many benefits such as improved resilience, education, and empowerment for local communities. Whilst Energise Barnsley is the largest local energy solar PV and battery storage project in the UK²², across SCR there is a relatively low number of community energy projects per resident compared to the South West or London.

5.2.4 Accelerate the transition to Ultra Low Emissions Vehicles (ULEV) and transport systems

Behaviour change to meet our targets

The importance of behaviour change in relation to both minimising energy use and implementing energy efficient practices cannot be underestimated. Everyone's behaviour needs to change to achieve the net-zero emissions targets – local government, industry, residents, and visitors. We simply cannot keep on using the amount of energy that we are today.

Road transport alone contributes 36% of carbon emissions in South Yorkshire²³. With a high proportion of SCR residents commuting to work using their car²⁴, behaviour changes of transport can deliver big gains. The SCR Energy and Transport strategies set an ambition to deliver an innovative, zero-emission public transport network and kick-start further ambitious active travel interventions.

Where active travel or public transport are not viable options, there is a need for a coherent City Region-wide network of transport infrastructure, helping to increase the uptake of electric and other ULEVs. Companies within SCR are already at the forefront of hydrogen technology, providing an opportunity to build on this competitive advantage and widen access to hydrogen as a transport fuel source.

²²Forthcoming SCR Draft Energy Strategy (2020)

²³Forthcoming SCR Draft Energy Strategy (2020)

²⁴ONS Travel to Work (2011)

In line with the national climate target, emissions from aviation (alongside other 'Scope 3' emissions) are not included within SCR's net-zero commitment. However, we recognise the importance of this sector and the requirement for its activities to be as clean as possible. We are working with the University of Sheffield to develop sustainable aviation fuels. Alongside commitments for better public transport access to the Doncaster Sheffield Airport, and research into light-weighting of materials already taking place within SCR, we will be part of the solution in decarbonising aviation.





5.3 How do we create the transformative change needed?

Decarbonising SCR's economy could cost around £1.7billion per year but could unlock over £2.8billion per year in benefits and create thousands of jobs. Innovative and long-term funding mechanisms will be required to achieve this.

To grow our net-zero economy, we will focus on four actions:

A. Exploiting value chain opportunities particularly associated with nuclear (Small Modular Reactors (SMR) and fusion):

- Supporting businesses to take advantage of market opportunities in clean and low-carbon energy generation and supply chain capacity, particularly for hydrogen, nuclear (including SMRs and fusion) and Carbon Capture, Utilisation and Storage (CCUS).

B. Grow the green economy; especially hydrogen, low emission transport and CCUS capabilities:

- Exploiting the potential of our hydrogen capabilities to grow our business base and tackle energy challenges;
- Utilising the City Region's research strengths (including the Translational Energy Research Centre) to establish SCR as an innovation incubator where clean energy ideas can be taken from concept to production and commercialisation;
- Supporting businesses to take advantage of market opportunities in clean and low-carbon energy generation and supply chain capacity, particularly for hydrogen and small nuclear;
- Developing a more circular economy that looks towards the future, focused upon developing solutions to protect and enhance the health and wellbeing of residents and responding to climate change.

C. Significantly increased renewable energy generation and storage to improve resilience:

- Utilising and/or repurposing current infrastructure and natural resources to decarbonise the energy supply, including the use of energy from minewater;
- Investigating energy storage for energy intensive industries to make them more efficient and help to balance the load on the local electricity/gas distribution network; and
- Supporting the decarbonisation of heat including: 4/5th generation heat networks, hydrogen for heat, electrification of heat, and zero-carbon smart microgrids.

D. Investment and deployment of energy efficiency measures and technologies:

- Prioritising the energy retrofit of households by helping with the capital costs of installing energy efficiency measures through innovative funding mechanisms;
- Working closely with Community Energy England to identify opportunities for energy schemes which provide a community benefit;
- The public sector leading by example, improving its building stock and embedding ethical and low carbon criteria into procurement and investment decision processes;
- Investing in expanding the network of Electric Vehicle (EV) charging points and hydrogen refuelling stations to ensure full coverage across SCR;
- Delivering a zero-carbon public transport network and active travel city region;
- Ensuring that new homes built in SCR are high-quality in terms of energy use and efficiency.

These will largely be delivered through the implementation of SCR's energy and transport strategies. There are also further ambitions identified for clean energy which are captured in other sections related to low carbon buildings, skills pipeline and transport.

Key intervention areas:

- Exploiting value chain opportunities particularly associated with nuclear (SMRs and fusion),
- Grow the green economy especially hydrogen, low emission transport and Carbon Capture Utilisation and Storage capabilities;
- Significantly increased renewable energy generation and storage to improve resilience; and
- Investment and deployment of energy efficiency measures and technologies.



6. Transport & Mobility

Our Transport Strategy's vision is to 'build a transport system that works for everyone, connecting people to the places they want to go within the City Region as well as nationally and internationally. Our transport system will be safe, reliable, clean, green, and affordable. It will be one of the best in the United Kingdom and Europe'.

Whilst the Transport Strategy also has goals which support a shift to a cleaner, healthier and more environmentally sustainable transport network, this section specifically focuses upon the need for 'residents and businesses to be connected to economic opportunity'. This is how the Transport Strategy will directly help to provide the underpinning conditions required to achieve the aims of this Economic Plan.



A reliable, efficient, and affordable transport system is a crucial driver of economic growth. Transport is fundamental to linking people, businesses, and services; whether it is connecting residents to jobs, education, or visitors and residents to green spaces and recreational facilities or ensuring our businesses can readily access their markets.

Evolving markets dictate the need for an integrated transport system that provides the connectivity, capacity, reliability and resilience needed to support wider regional objectives. Pre-Covid, the evidence suggested that congestion was restricting growth, and without intervention could significantly curb future productivity. Covid-19 has also changed how people use transport and how transport operates; encouraging the potential for active travel and highlighting the criticality of the public transport network for communities.

6.1 Why do we need to change?

The SCR has a diverse and well-connected economy comprising a dynamic core city, thriving towns and fabulous countryside and a significant rural economy. We have good national and international connectivity being served by the motorway network, East Coast and Midland Mainline rail routes and the Doncaster Sheffield Airport. However, a key challenge is ensuring our transport network keeps pace with planned growth across the City Region. A growing population coupled with increases in planned development will lead to further challenges if the transport offer continues to favour car travel over other modes.

Elsewhere, capacity on more popular routes has been identified as an area for improvement, particularly on train services where both the service frequency and the seating capacity on board is recognised as poor. Transport in the City Region is focused around a relatively small urban area, meaning that some areas are poorly served, particularly in the more rural areas of the City Region. There are also several locations outside of urban centres earmarked for development with little public transport provision available.

The changes we seek can be summarised as follows:

- **Connectivity:** Linking people and places – including residential areas, key destinations, emerging development sites and growth areas.
- **Frequency:** Public transport should be frequent and well-timed to match busy periods.
- **Capacity:** There needs to be plenty of seats so that routes do not become overcrowded and unattractive to users.
- **Reliability:** Tackling transport choice and reliability is essential to ensure that public transport can be as attractive as the private car.

6.2 What do we need to do to create growth?

Our aim of ensuring 'residents and businesses are connected to economic opportunity' has three associated policies:

1. Improve the existing transport network to enhance access to jobs, markets, skills and supply chains, adopting technology solutions to support this.
2. Enhance productivity by making our transport system faster, more reliable and more resilient, considering the role of new technologies to achieve this.
3. Invest in integrated packages of infrastructure to unlock future economic growth and support Local Plans, including new housing provision.

6.2.1 Improve the existing transport network to enhance access to jobs, markets, skills and supply chains, adopting technology solutions to support this.

We need to develop integrated transport connections and improve access on four geographical scales:

- within our City Region;
- to other centres in the North;
- to locations in the UK beyond the North, such as London;
- to our international markets.

By increasing intra-regional connectivity, we will provide access to jobs, skills and education opportunities for everyone in our City Region, while improving access to markets and supply chains for our businesses.

Most SCR residents (85.3%) commute within the City Region boundaries, with the highest amount of intra-regional commuting taking place between Sheffield and Rotherham, highlighting the need for improved connectivity by sustainable modes.

We also need to improve inter-regional connectivity, particularly east-west connections, and connectivity across the North, which will widen our labour market as people can live and work in different city regions. HS2 and Northern Powerhouse Rail (NPR) provide the prospect of transformational change. The UK Government plans to invest £106bn to build HS2, from London to Birmingham, South Yorkshire, Leeds, and Manchester. There is much to be done however, in the short to medium term to secure benefits from rail investment, including completing the upgrade of the Hope Valley Line and making the case to reinstate rail routes that are not in use or are currently underutilised.

Access to national and international markets is essential in our ever-increasing global economy and we will seek to embrace both new and proven technologies that will improve this. We are in an excellent position to capitalise on our existing assets to achieve this, in particular, Doncaster Sheffield Airport and the proposed development surrounding it. However, connectivity to and from DSA needs to be as sustainable, efficient, and effective as possible. We will work with DSA to achieve its full potential, whilst also recognising that we must balance this with our net-zero ambition.

6.2.2 Enhance productivity by making our transport system faster, more reliable and more resilient, considering the role of new technologies to achieve this.

Transport improvements can enhance productivity by making travel to and from work, as well as travel for work, quick and efficient, so that more time can be spent being productive. We know that congestion in our City Region is already restricting economic growth. For example, analysis shows that travel times can be over 30% longer at peak times compared to off peak times for rail services arriving and departing from Sheffield Midland station.

The solution is not more roads but how we use road space more efficiently, prioritising uses that move people most effectively. Pedestrians, cyclists, and other transport modes that involve physical activity need the highest priority when planning, designing, and developing our road infrastructure.

As a result of Covid-19, our experience and expectations of travel is undergoing a revolution. Covid-19 has meant that some trends have accelerated. Major upward trends in intelligent mobility and transport systems, autonomous vehicles and artificial intelligence need to be embraced. The successful adoption of future mobility and digital technologies and services in SCR are reliant not only on technological advancement, but also on the governance and regulatory regime within which they operate.

There is also potential for the future of technology to address aspects of transport poverty, low carbon futures, and unlock economic growth. We will harness the opportunities presented by regional employment and specialisms in the transport sector.

Provision of accurate and timely transport information allows SCR residents to make the best travel choices. Currently information can be patchy or in some cases it is not available at all. Working with Transport for the North (TfN), regional partners and local operators, there is a need to maximise digital technologies to support modern payment methods and mobile travel information. This will improve the passenger experience and can address reliability by reducing boarding times.



6.2.3. Invest in integrated packages of infrastructure to unlock future economic growth and support Local Plans, including new housing provision.

Unlocking sites for housing and commercial growth requires integrated packages of infrastructure that consider land use planning and the aims of our SEP holistically. This holistic approach will enable the best use of our existing assets and capitalise on our current resources to unlock growth in a cost effective and sustainable way. Transport requirements should be considered during the early stages of planning a new development to ensure enough provision is made. This also needs to align with and support Local Plans so that there is a coordinated and concerted effort to plan transport, development and regeneration in a coordinated manner.

Transport can play a major role in improving the quality of our outdoors. Vehicle emissions affect air quality, which affects human health and can impact on biodiversity. Carbon emissions also contribute to climate change. Furthermore, the resilience of the transport system to current and future climate risks, especially flooding, remains a continued concern.



6.3 How do we create the transformative change needed?

The following priorities were outlined in the SCR Transport Strategy and highlight our priorities on the evolving transport agenda. We will build on existing strategies to drive sustainable and inclusive economic growth:

A. Improve the existing transport network

Mass transit, buses, and local rail links play a crucial role in driving the economy as well as reducing carbon emissions, providing a vital service to communities and are particularly essential transport modes for the 35% of households without access to a car. The Transport Strategy's ambition is for a world-class public transport system that connects different travel modes seamlessly into one comprehensive, easy-to-use network. By using our road network efficiently, we shall continue to support growth but also secure the modal shift commitments set out in the SCR Transport Strategy. SCR MCA will transform the performance, image and experience of public transport to make it an attractive choice for all:

- **Buses** - We will work with partners to action, where possible the recommendations of the SCR independent bus review, focusing upon improved performance, principally reliability, frequency, affordability, and connectivity. We will work with the business community in the redesigning of our bus network to ensure their needs are captured alongside everyone else's.

- **Tram Renewal** - SCR MCA must futureproof the existing ageing Supertram network. We will work with the UK Government to secure the support needed to renew this strategic asset.

- **Train-Tram Extension** - The extension is a crucial part of the broader Strategic Transit Network promoted in the SCR Transport Strategy. Tram-Train has the potential to plug gaps in mass-public transport between key urban centres and strategic assets whilst also relieving capacity constraints. Train-Tram is a key component supporting our urban centres and key growth sites and will connect our people to opportunities in a sustainable way. Key interventions needed include completion of the innovative tram-train pilot, business case development for extension into Doncaster and Barnsley, and options appraisal for expansion of Park & Ride provision to reduce congestion in urban areas.

- **Active Travel** – Enabling more cycling and walking to take place across the region.

- **Road investment** – Roads can unlock growth potential, provide connection to public transport and join up a network where other options are not available. The road network also facilitates the performance of SCR's businesses and supports inter-regional flow, particularly for freight and logistics sectors.

In the context of a climate emergency and a commitment to achieve net-zero carbon emissions by 2040, the focus will be on making the best of existing roads, before building new ones. Public transport priority and investment in high quality cycling options will be an important focus of road investment.

B. A transport system that is faster, more reliable and more resilient

We will connect our employment, housing and commercial sites through rapid, efficient public transport and cycling and walking infrastructure. It is essential that key employment centres like our urban centres, AMID and our emerging innovation clusters are equipped with better transport connectivity to enable accelerated growth. These will benefit from investment to improve mode choice, smarter traffic information systems and charging point networks for electric vehicles, using renewable energy sources. Rapid public transport connections will require the patronage to make this sustainable and therefore the way that journeys are currently undertaken needs to change.

We need to plan for growth at all scales. Transport interventions are often vital to unlocking new sites for development. There is an opportunity to re-open rail infrastructure that has laid dormant or is currently underutilised to support growth. It will be essential to designing new and growing places to support sustainable transport. As we plan for growth for the whole City Region, our plans for tram renewal and extension will be taken forward.

C. Integrated packages of infrastructure to unlock future economic growth

The significant transport investment needed in SCR, as set out in our Transport Strategy, is well aligned with TfN, NPR, and other UK Government plans. Our plans look to maximise the benefits of HS2 and NPR. The SCR Integrated Rail Plan includes several priorities with the following specifically aligned to this SEP:

- Connecting HS2 trains from the centre of Sheffield to Leeds and the north east of England; improving the speed and frequency of trains from SCR to Greater Manchester and Leeds; new Intercity rail connectivity direct into the town centres of Barnsley and Rotherham; a new station in the Dearne Valley, a direct national rail connection to DSA, major improvements at Sheffield Midland station and other local stations through NPR; completing the upgrade of the Hope Valley Line; and opening of low usage or closed rail lines to new passenger and freight services; for example, Waverly station (to serve AMID).

SCR MCA requires investment in infrastructure and schemes to support a move to zero-carbon transport fuel such as hydrogen, encourage a modal shift to active travel and public transport, and prioritise sustainable travel modes over private cars to reduce the number of vehicles on our roads. The SCR also needs to rapidly improve its EV charging infrastructure, as outlined in section 5.

SCR can maximise opportunities from future transport investment and innovation. SCR MCA will support the growth of our transport industry to enter and prosper in global supply chains. SCR MCA will work in partnership with our universities and businesses to accelerate the translation of research and development of new transport technologies into prototypes, pilots, and trial products.



Key intervention areas:

- Connect residents to employment opportunities and key growth sites with rapid, efficient public transport and cycling and walking infrastructure.
- Encourage modal shift to active travel and public transport by growing an extensive and integrated network of cycling and walking routes.
- Deliver a range of transport packages to connect SCR to national and international markets.
- Work in partnership with our universities and businesses to accelerate the translation of research and development of new transport technologies into prototypes, pilots, and commercialised products.
- Invest in infrastructure and schemes to support a move to zero-carbon transport fuel.

7. Digital

The digital revolution is transforming every aspect of our lives, globalising communications, forming new linkages, and driving new economic activity. Covid-19 appears to have intensified the move towards digital technologies in our homes and workplaces. Digital connectivity enables residents and businesses to use digital solutions to improve their lives and to sustain, grow, and create new businesses. SCR will drive sustainable and inclusive growth by ensuring we get the balance right between 'soft' and 'hard' infrastructure. This means creating the enabling conditions for residents and businesses to connect, gain digital skills, adopt new processes, and exploit the opportunities this opens. It also means securing investment in the 'hard' infrastructure to make this possible and ensure we have digital connectivity fit for the 21st century.

7.1 Why do we need change?

7.1.1 Digital technology does not stand still

The quality and coverage of SCR's digital infrastructure is critical to realising future ambitions. During Covid-19 'lockdown', the quality and coverage of digital infrastructure has shown some limitations and confirmed the 'digital divide'. There is a need for full fibre and 5G coverage across the whole region, some areas of which still have inadequate 4G coverage. SCR is already lagging behind other city regions, with open access full fibre coverage only half the national average. In addition, although we now have near 100% *superfast* (30-100 Mbps) coverage due to the successful Superfast South Yorkshire Programme, the city region needs to gear up to *ultrafast* services (300+Mbps) and Gigabit speed²⁵ services, which is transforming how information is processed, and services are delivered.

The Government has set a target for full Gigabit service coverage across the UK by 2025, but there is an opportunity to achieve this target across the SCR before 2025; thereby maximising the economic and inclusive opportunities this would present.

But it is not just about speed. The increasing number of 'smart' devices are disrupting markets for basic everyday appliances (e.g. TVs, heating systems, and fridges)²⁶. New product design, manufacturing techniques, use of artificial intelligence, autonomous vehicles, smart devices, new forms of wireless connectivity (5G and 6G in the future) and infrastructure upgrades all present significant opportunities for new jobs, investment, and productivity improvements. An economy and workforce that does not adapt, enable and fully exploit these changes and opportunities will be left behind both economically and socially.

²⁵HD TVs run at 8mbs; 4k TVs stream at 32mbs each and the next generation of TVs will be even higher – NB definition of Superfast is 24-30mbs (not enough for one 4k TV)

²⁶Also termed the 'Internet of Things' (IoT)

7.1.2 SCR's digital economy can be stronger

Our City Region's digital sector currently makes a smaller contribution to the economy compared to northern England and the national average. However, SCR has a notable presence in several digital industry sub-sectors including creative, mobility, industrial and learning (EdTech) technologies.

However, demand and take up of full fibre digital connectivity SMEs is still relatively low, suggesting that across the economy the benefits of enhanced digital connectivity, for improving productivity and driving economic innovation, may not be fully realised.

Accelerator programmes within the City Region have been limited so far. Although there has been recent progress, we want to ensure that we have digital accelerator programmes comparable with the private sector-driven offer available in other Northern cities. The supply of incubator facilities and managed workspaces has grown strongly in recent years, and there is a healthy pipeline of new innovation-focused development, particularly in Sheffield and at the Barnsley Digital Media Campus. However, a lot more is needed and there are reported constraints in accessing suitable grow-on space as digital businesses scale up.

Economic gains from digital

Significant economic gains are possible if deploying the best infrastructure for digital connectivity. Analysis of the benefits of digital infrastructure has posited that the total economic impact of deploying full fibre broadband networks in South Yorkshire could be as high as £2.8bn over 15 years. Almost half of these gains are derived from 5G connectivity which is anticipated to open new business models and bring forward products and services in sectors such as transport & logistics, finance, health & social care, manufacturing, and retail.



²⁷SCR Digital Action Plan Evidence Base (2018)

²⁸SCR Digital Action Plan Evidence Base (2018)

The platform for raising digital skills

- **Schools** - As the national leader, and a globally significant player in EdTech, SCR has a good opportunity to enhance digital skills within the future workforce from an early age.
- **Universities** - SCR's university base is an important source of talent, with around 700 graduates in computer science and related subjects each year.
- **Apprenticeships** - Every year 1,200 people enrol on digital-related apprenticeships.
- **Further Education** - Almost 10,000 people in the SCR enrol on 'digital-related' education and training courses per year, primarily within SCR's Colleges. In addition, the City Region's UTCs' focus on engineering, digital, and manufacturing.
- **Informal Learning** - Many of the City Region's coding clubs and other informal activities are driven on a voluntary basis, often located within schools and public venues. Some schools run free after school code clubs for 9 to 13-year olds, supported by organisations such as Raspberry Pi Foundations.

7.1.3 Digital skills need to be embedded within the existing and future workforce

The growth of our economy is strongly linked to the digital skills of the workforce. Digital workers are highly skilled, with over 40% qualified to

degree level or higher²⁷. Forecasts also suggest that 10,000 new digital sector employees will be needed by 2024 in SCR²⁸, equivalent to around half of the whole digital workforce. The pace of change means that all sectors will become 'digital' and will need to upskill their workers. This highlights challenges and opportunities for large employers and anchor institutions in the City Region.

We are building on strong foundations of existing activities and delivery to upskill the workforce with effective school, college, apprenticeship and UTC programmes providing a talent pipeline for businesses utilising digital technologies. Despite strengths in delivery, digital exclusion is high. Few women engage in IT-related learning at higher technical level, and learner pathways are unclear. None of these factors are unique to the SCR, although local learning providers and businesses have expressed frustration at the apparent mismatch between supply and demand in a fast-moving technology rich environment.

7.1.4 A digital world should not leave people behind

Covid-19 has confirmed that it is crucial that the population has the ability and confidence to use digital technology, particularly as more everyday activities and services become digitised, affecting all aspects of our lives. The benefits are ever-growing and include accessing public services like healthcare and private services like banking, but also social engagement, media connectivity, and shopping. Importantly, this can align with other critical agendas such as reducing carbon emissions and minimising the costs of travel.

7.2 What do we need to do to create change?

The ambition for digital is that SCR will be recognised as one of the best-connected city regions in the country where coverage, choice, and speed of communication stays ahead of demand and where there is an abundance of multi-skilled, digitally mature individuals to cater for every industry's business needs. Enhanced digital connectivity and skills enable people to use digital solutions to improve their lives and to sustain, grow, and create new businesses. Almost every aspect of the economy is being transformed by digital technology. The rationale for change outlines four strategic areas for us to focus on:

A. Secure cutting-edge digital infrastructure to develop smart communities

We will enhance SCR's digital ecosystem by ensuring the supply of 'hard' infrastructure (full fibre and 5G) across the whole of the SCR, some areas of which still do not have 4G connectivity. This will likely require public interventions where market failure exists to accelerate and bring forward delivery. However, extending digital connectivity coverage alone will not in itself achieve the economic and social benefits that we want to realise. This will rely on progressing the other three areas of activity above in parallel.

B. Improve skills

We need to increase understanding and take-up of digital technologies across the whole of the City Region. We will develop, attract, and retain talent, increasing (and enhancing) the supply of digital skills and ensuring that the digital curriculum (at all levels) is relevant to rapidly changing business needs.

C. Ensure that we build inclusivity

We must support and enable digital inclusion to widen participation and build capability for all. We will do this by combating the factors that keep people excluded from the digital economy, and ensuring all of SCR's residents have, at the very least, the basic access, skills, and confidence they need to harness the benefits of digital in their lives and work.

D. Support business innovation and growth

We will support businesses, particularly SMEs, to better understand and exploit the productivity improvements that enhanced broadband connectivity could bring. We will do this by supporting SMEs to become full-fibre and 5G connected; providing better links to schools, colleges and universities to access the future digital skills they will need; and enabling them to exploit the commercial benefits of digital opportunities to innovate and scale-up business activities and growth. This could include deployment within the public sector to increase efficiency of services, as well as within innovating firms that stand to benefit from greater exposure and capabilities of digital. It also involves developing investor networks and attracting commercial digital accelerators, building on home-grown examples such as those established in Sheffield.

7.3 How do we create the transformative change needed?

Our digital priorities that relate to skills and business will be delivered in line with the respective sections already presented in this strategy. The actions below are focused on infrastructure and inclusion.

A. Secure cutting-edge digital infrastructure to develop smart communities

- Identifying and leading on barrier-busting measures to accelerate deployment of full fibre and 5G, including the utilisation of public sector land and assets.
- Providing infrastructure support and interventions where it is commercially prohibitive such as 'hard to reach' areas.
- Ensuring consistency in local planning approaches across the SCR to future digital infrastructure and service provision requirements, both promoting provider certainty for investment in the sector and enabling accelerated adoption of the digital developments and the 'SMART' agenda.

B. Build inclusivity and essential skills for life and work:

- Supporting the role of formal and informal (e.g. community-based) learning provision for adults at risk or those excluded from the digital economy or digital-first services;
- Connecting with initiatives (e.g. the Future. Now alliance) to improve essential digital skills in the wider workforce, building digital adaptability of staff, suppliers and businesses;

- Actively supporting the development of 'assistive technologies' which enable people with disabilities to better access digital;
- Working with partners across SCR to improve digital access and affordability for residents, where this remains a significant barrier for people; and
- Working across education, business, the wider public sector, community organisations, libraries and charities (e.g. Good Things Foundation) to ensure digital inclusion is a critical element of our approach.

Key intervention areas:

- Creating the enabling conditions for a digital future through the accelerated roll-out of full fibre and 5G across the SCR and supporting 'SMART cities' interventions.
- Ensuring SCR is an attractive place to invest in the digital sector and encouraging the private and public sector to adopt cutting edge digital technology and innovate.
- Maximising digital's contribution to economic growth by nurturing commercial and entrepreneurial successes and increasing businesses' digital capability, adoption and access.
- Boosting digital skills development by connecting talent with employers, connecting the digital community and maximising opportunities from digital skills development programmes.
- Focus on digital skills and collaboration to support individuals and organisations in tackling digital inequalities.

8. Land, Housing & Built Environment

The availability of good quality, well connected and attractive development land for new homes and jobs is a major competitive advantage for SCR. But there are challenges with the quality of our existing built environment, especially in urban areas, and a need to invest in our current housing stock. The attractiveness and viability of some employment locations mean that they are not attracting the quality of jobs and development we demand.

SCR MCA's approach to land, housing and built environment is to;

- Improve the quality of existing and new housing stock, whilst maintaining housing growth;
- Ensure the supply of good quality and attractive employment land that is widely accessible; and,
- Proactively work on strategic planning opportunities to unlock potential through joined-up investment packages.

8.1 Why do we need change?

SCR has over 1,300 ha of employment land ready for commercial and industrial development across the City Region, able to accommodate up to 96,000 new jobs. At the same time, we are building over 6,000 new homes every year with plans to continue this over the next ten to 15 years. However, we are not attracting enough productive and growing businesses to these sites.

Many of our larger sites are well served by roads but have little in the way of public transport or active travel options, meaning that they are not well integrated into surrounding communities and difficult to reach from other parts of the city region.

At the same time, a reliance on road links means skew land development towards certain sectors, many of which have traditionally largely generated low value jobs. This then displaces or restricts development in higher value activities.

Furthermore, our industrial past means that investment is needed to remediate sites and improve the local environment in order to create the basis for new development.

²⁹66% of existing stock is below EPC Rating C.

In terms of the housing market, there are stark differences across the city region. The polarisation is a barrier to inclusion, limiting social mobility and contributing to widening inequalities across the city region. The quality and energy efficiency of the housing stock is also poor with around 400,00 homes in need of improvements to meet the standards we expect over the lifetime of the SEP²⁹. Sites and buildings in South Yorkshire are not always resilient to climate change or fit for a low carbon future. Flooding events across South Yorkshire illustrate the threat of a changing climate to communities and our economy.

8.2 What do we need to do to create change?

8.2.1 Land to deliver growth aspirations

We must bring forward a combination of mixed-use developments, large strategic opportunities and strategic regeneration in key growth areas. We need to focus on a small number of big opportunities - sites and developments that have the scale to benefit the wider city region. This will demand a much more joined up approach between local authorities and other public agencies to share resources and jointly deliver, as well as private sector investment. We must also continue to work across South Yorkshire to provide a more consistent and proactive development environment that offers support, provides certainty and pushes for higher quality.

8.2.2 Unlocking our housing potential

There are three aspects to SCR's housing market which should be addressed:

- **Existing Homes** - There is potential for existing homes to play a much bigger part in regeneration and the local economy. Renewal or upgrades to the housing stock can unlock investment, creating new jobs and business opportunities locally.
- **New Homes** - New housing needs to drive greater density in urban areas, benefit from (and deliver³⁰) transport connectivity and enhance the built environment, helping to create more attractive places to encourage demand.
- **Housing Innovation:** Modern methods of construction have the potential to revolutionise the way that new homes are delivered in South Yorkshire, providing higher build standards and more efficient technologies than traditional construction. Alongside technical innovation, we need to encourage investment in skills so local people can benefit from the jobs this creates as well as new investment models and products such as Build to Rent, to provide the range of homes and tenures that people now demand.

³⁰Through greater density, urban areas can make public transport connectivity more viable and development can also release new investment in existing transport.

8.2.3 Strengthening our urban centres

SCR MCA will adopt an integrated place-based approach to developing strategic regeneration proposals in urban centres which aligns investment in infrastructure (e.g. land remediation, housing, transport and other infrastructure) to create sustainable employment and housing. This will focus on supporting Local Plans to re-structure town and city centre economies, helping to re-populate and re-purpose our urban cores so that they act as a magnet for people, businesses and growth in South Yorkshire.

Where it is best placed to lead, SCR MCA will ensure that key growth areas are developed through master planning, site assembly, marketing and investment.

8.2.4 Managing land sustainably

Our natural capital and cultural and heritage assets are rich and diverse. We will ensure that land is developed sensitively and sustainably, protecting and enhancing key environmental assets whilst unlocking new sites and opportunities that are resilient to climate change and other threats. Part of this will involve making the most of the infrastructural assets already in place as well as adopting different approaches, such as natural flood management.

SCR MCA will also work closely with surrounding areas and our non-constituent member areas³¹ so strategic sites continue to offer opportunities and benefits for the wider economic area.



³¹Non constituent areas include Bassetlaw, Bolsover, Chesterfield, Derbyshire Dales, and North-East Derbyshire.



8.3 How do we create the transformative change needed?

Creating strong employment locations in key parts of SCR, with good access from residential areas, is central to achieving a growing, inclusive, and sustainable City Region. The core ambitions are therefore to:

- Develop the right residential, industrial and commercial sites and premises, well connected and in the right locations at a scale to support densification and economic growth in key parts of SCR;
- Ensure that new development is well served by high quality, modern infrastructure, well connected to other parts of the city region and resilient to flooding and the impacts of a changing climate;

- Ensure that SCR's urban centres are quality places where people and businesses choose to locate – offering the opportunities to live, work, study and relax in a dynamic and diverse environment.

It is critical that we ensure there is enough viable land in the right locations, clusters and stronger urban centres³². To do so, the key priorities for land, housing, and the built environment in supporting our innovation and growth agenda are outlined below:

A. Liveability and our housing offer

Improve the quantity and choice of high-quality homes by adopting Modern Methods of Construction and supporting new and innovative models of investment through:

- Working with partners to promote development that adheres to quality standards, low carbon and biodiversity net gain requirements and prioritises modern methods of construction;
- Supporting the delivery of new housing and business space;
- Upgrading existing housing stock to higher environmental standards;
- Ensuring that all new housing developments have full fibre digital connectivity;
- Stimulating the development of affordable homes in sustainable, vibrant and mixed urban centres.

³²Please see section 3 for more details

B. Planning Strategically - A long-term and more integrated approach for development. SCR MCA will lead by:

- Building on the SCR Statement of Common Ground through joined up strategic working on cross boundary place issues (e.g. biodiversity, flood risk, housing, economic growth, low carbon, transport and flood risk);
- Providing a framework to consider spatial impact of development to ensure that new employment sites are accessible and modern;
- Releasing/unlocking sites by overcoming barriers to viability and working proactively to make the most of public funding and drive through development;
- Working with local authorities to authorise compulsory purchase orders or other powers we need around key development sites to push development forward, where appropriate; and,
- Providing the framework to benefit from land value capture and ensure a return on investment to fund infrastructure needed.

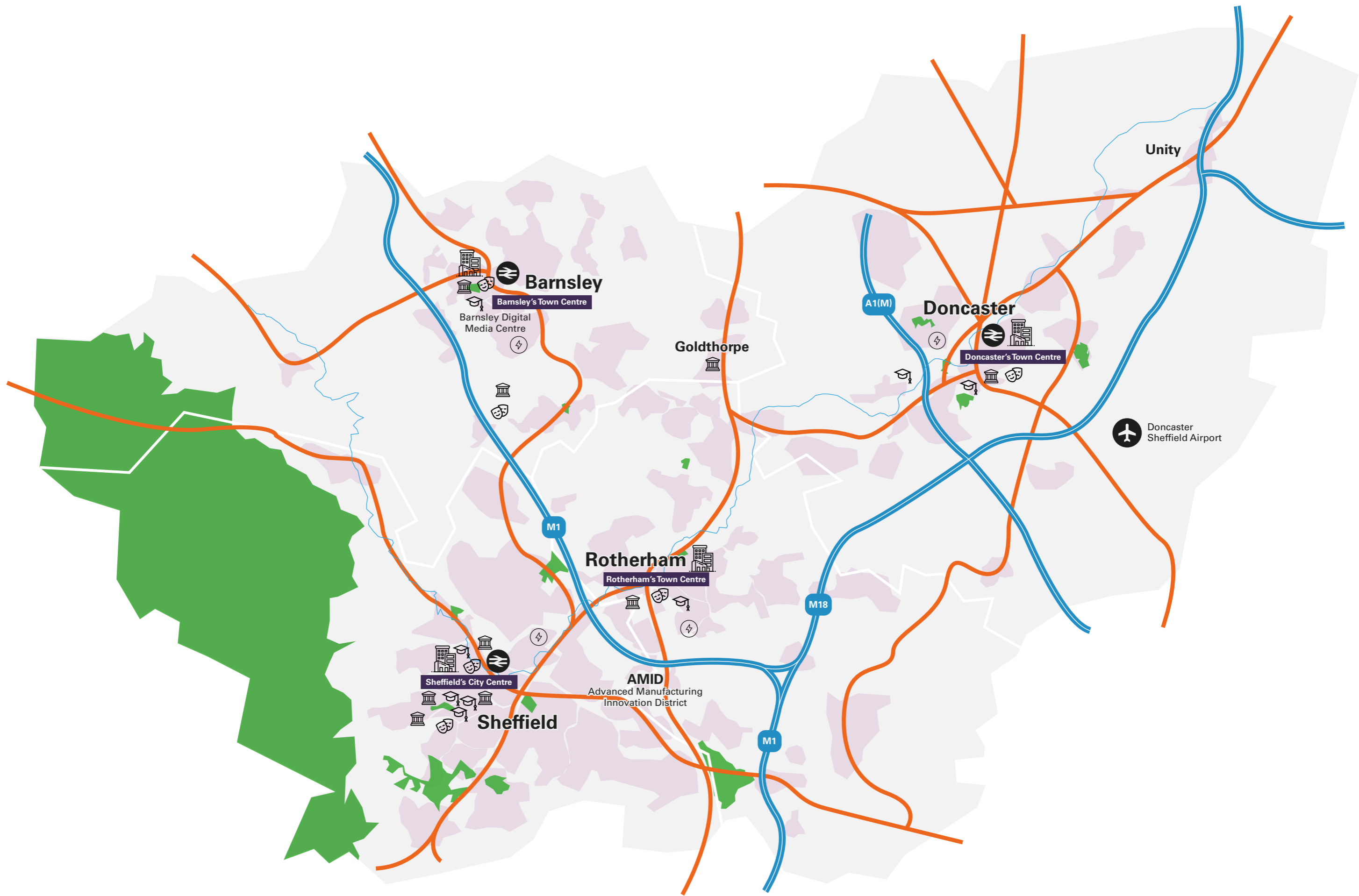


C. Maximise public assets - Utilising public assets and the public estate to drive regeneration, host digital infrastructure, and enable innovative place shaping.

D. Natural capital enhancement - Deploying innovative finance, policy, and delivery mechanisms to improve the stock of natural capital (and biodiversity) to allow us to be the first generation to leave our natural environment in a better state than we found it.

E. Develop infrastructure investment 'place packages' - Agreeing packages of interventions for each of the key growth areas in the SEP, supporting locally driven approaches with additional capacity for site assembly and infrastructure investment. We will focus on a small number of areas which have the potential to create change at scale and bring benefits to the wider city region:

- Sheffield city centre:
- AMID
- Barnsley Town Centre
- Rotherham Town Centre
- Doncaster Town Centre
- Doncaster Unity
- Goldthorpe in the Dearne Valley
- Doncaster Sheffield Airport



Key intervention areas:

- Ensure the supply of viable land in the right locations, maximising the potential for clusters and improving our urban areas.
- Improve the quantity and choice of high-quality homes.
- Plan strategically through a long-term and more integrated approach for development.
- Working in partnership with stakeholders to deliver place-based policies that improve economic growth, inclusion and environmental sustainability.
- Develop infrastructure investment packages for key development opportunities in SCR.



9. Outcomes, Benefits and Financial Implications

SCR MCA's vision – centred on growth, inclusion, and environmental sustainability – is underpinned by our outcomes framework. SCR has developed targets to complement the outcomes. These will help to measure progress against the outcomes on a regular basis. The outcomes and metrics are 'live' and will be reviewed over time³³.

The SEP Implementation Plan will set out the activities that will take place and how the strategy will be delivered. It will set out the specific actions that will be taken forward and the organisations that are responsible for delivering those actions.

The outcomes and targets (Figure 5 and table below) will guide all investment decisions that SCR controls or influences to ensure this is coordinated and that impact is maximised to deliver our policy objectives.

We have developed the outcomes and targets to not only provide transparency and accountability in terms of our progress, but also to inform the decisions we make in how we invest the resources available to us and how we commission services.

9.1 Outcomes and targets

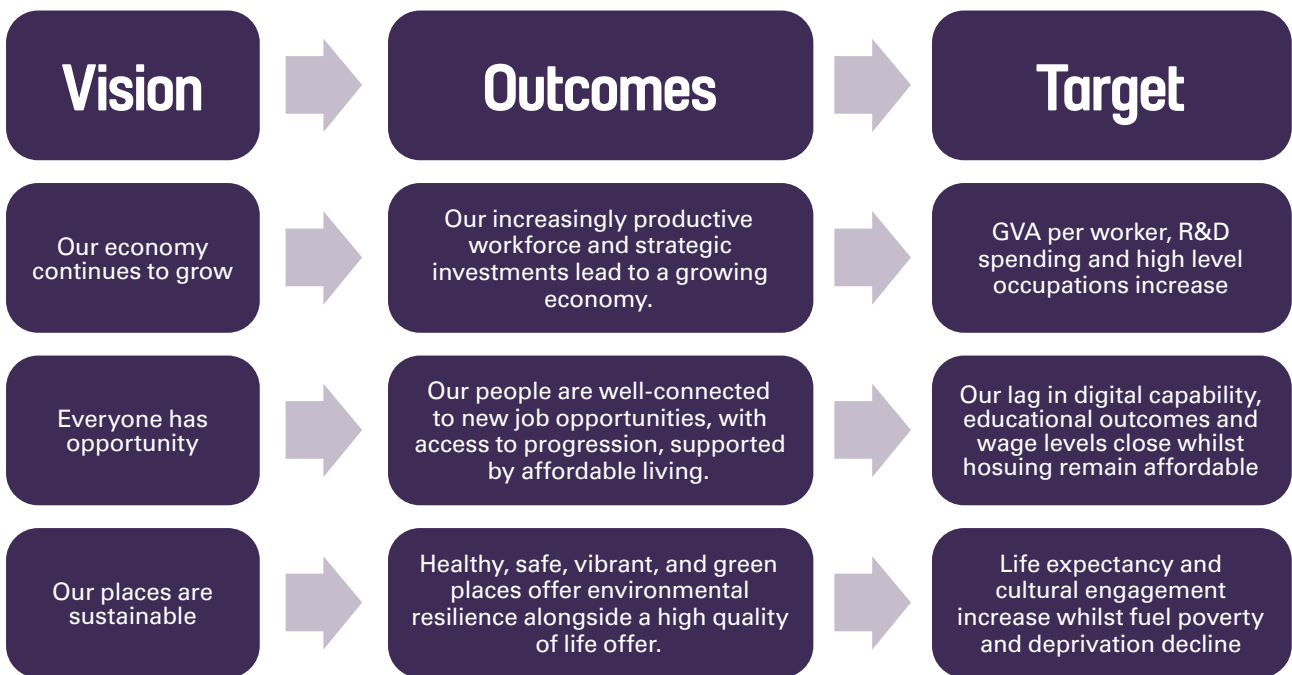


Figure 5: Linking the vision to outcomes to target

³³SCR will work with stakeholders to measure so that we can track our performance as accurately as possible. This also provides an opportunity to adapt targets in light of more information or more detailed understanding.

The targets highlight areas where we would like to monitor progress and are mostly relative, meaning that progress is measured against wider change. The targets will require regular review, particularly when data and metrics improve, evolve, or if the wider economic, social, or environmental context changes. At time of writing, the targets will lead to the following outputs by 2040:

- **Economy:** Productivity growth which will drive an extra £7.6 billion Gross Value Added (GVA).
- **Jobs:** Progression will see an extra 33,000 in higher level jobs.
- **Wages:** Raise average wages, and particularly the lowest wages, across South Yorkshire, by over £1,500 per annum in line with the national average.
- **Environment:** Delivering a net zero carbon emission target for South Yorkshire.
- **Skills:** Skills and education progression and attainment rates improve, leading to 30,000 more people with higher levels skills (NQF Level 3+) and 9,000 fewer people with no skills or low qualifications.
- **Health:** Healthy life expectancy at birth to match the national average, with an improvement by roughly 3 years for men and women in SCR.

More detail on the outcomes and targets is provided in the following tables.



Indicator	Desired outcome	Data	2040 target
Productivity	Our workforce's productivity will increase, positively benefitting the prosperity of our residents.	Labour productivity measured in Gross Value Added (GVA) per employee. Annual Population Survey. 82% of UK average (2017)	100% of UK average*
Economic output per capita	The size of our economy relative to our population will increase.	GVA per capita, rather than employee as above. Annual Population Survey. 68% of UK average (2017)	100% of UK average*
R&D expenditure	A greater investment in R&D (relative to our economy) indicates an innovative economy.	R&D expenditure as a proportion of economy using ONS and EUROSTAT data. SCR approx. 1%	UK Government target of 2.4%
Enterprise	Higher density and growing business base.	Enterprise growth rate is approximately 15-16% using ONS Business Demography data.	Target birth rate of 16%.
Car usage	Car usage falls, indicating mode share and lower pollution due to transport.	Car usage measured by vehicle miles. Annual road traffic statistics by Department for Transport. 4960 million vehicle miles (2018)	To be developed
Digital connectivity	A higher proportion of our region is covered by both full fibre & 5G broadband.	Percentage of full fibre coverage of residential and business premises. Weekly network rollouts modelled by Think Broadband based on Openreach data. 8.4% (2020)	Equal to UK level
Housing costs	The housing system and wider economy means that earning power is not being eroded by inflating house prices.	Lower quartile house price to earnings ratio. MHCLG 'House price (existing dwellings) to residence-based earnings ratio'.	No increase in ratio

*MCA and LEP will work with partners to ensure SCR at least achieves these lower bound targets.

Indicator	Desired outcome	Data	2040 target
School leavers	More children leave secondary school with better attainment to boost their prospects entering further education and employment.	Attainment 8 scores average, Department for Education administration data. BMBC – 42.5, DMBC – 42.7, RMBC – 43.6, SCC – 44.6 England – 46.1 (2018)	Equal to England level
Education	A higher proportion of working-age population possess higher qualifications, indicating progression in education and employment.	NVQ level 3 and above included. Annual Population Survey. SCR – 54.2% GB – 57.8% (2018)	Equal to UK level
Wage levels	A lower proportion of employees on low earnings (defined as 20th percentile of earnings distribution).	Annual Survey of Hours and Earnings. £8.92 per hour 3% below UK level (2019)	Equal to UK level
Higher-level occupations	Higher proportion of employees in managerial, technical & professional occupations.	Standard Occupation Classifications 1-3 represent higher-level occupations. Annual Population Survey. SCR – 43.4% UK – 47.0% (2019)	Equal to UK level
Unemployment	More working-age people are in employment.	Annual Population Survey. SCR – 5.2% UK – 4.0% (2019)	Equal to UK level

Indicator	Desired outcome	Data	2040 target
Air quality	Improvement in air quality, as measured by relevant different particulate matter.	To be developed based on public health agreements and available data.	Equal to England level
Health	Our population live increasingly long, healthy lives.	Healthy life expectancy at birth. SCR – male 60.2 years, SCR – female 60.2 years UK – male 63.1 years, UK – female 63.6 years	Equal to UK level
Fuel poverty	Fewer households living in fuel poverty.	BEIS Sub-Regional Fuel Poverty Estimates. SCR – 10.6% England – 10.9% (2017)	Equal to UK level
Cultural participation	Gap for overall participation in cultural activity between SCR and national average closes.	To be developed awaiting regular updates and reliable data.	Equal to UK level
Deprivation	Lower share of local areas in deprivation.	MHCLG Index of Multiple Deprivation – a composite of indicators including income, employment, education, health, crime, barriers to housings and services, living environment deprivation. BMBC – 22%, DMBC – 24%, RMBC – 22%, SCC – 22% (2019)	Equal to UK level
Climate and environment	Improving ‘value’ of natural environment measured by ecosystem service provision.	To be developed awaiting regular updates and reliable data.	

9.2 Economic and Financial Benefits

This SEP is bold and ambitious and, when delivered, will make a significant economic contribution to the national economy and financial benefits to the public purse. The actions and ambitions set out in the document will unleash the potential of people, employers and places and accelerate the transformation of South Yorkshire, levelling it up with the rest of the UK.

Quantifying the additional benefits that this SEP offers has been informed by an econometric analysis of the outputs and outcomes. This was informed by the development of a series of logic models to align the key policy objectives with the broad mechanisms through which these are to be achieved. The modelling has been underpinned by engagement with and scrutiny from industry experts and academics.

Investment in SCR will yield a significant return on investment for Government, delivering quality jobs, higher productivity, new businesses and more new and commercialised ideas that will keep the UK at the cutting edge of innovation globally.

Based upon the analysis of current trends and critical assessment of agreed targets, the headline benefits are summarised here. This shows the additionality that delivery of the SEP offers South Yorkshire, the North of England and the UK.

Potential benefits from delivering the SEP



+ £7.6 billion

Potential headline
GVA growth



+ 33,310

Employees in higher
skilled occupations



+ £10,880

GVA (economic output)
per employee



+ 4,855

Enterprise births



+ £9,200

GVA (economic output)
per capita



+ £2.49

Gross hourly wages



+ £1.1 billion

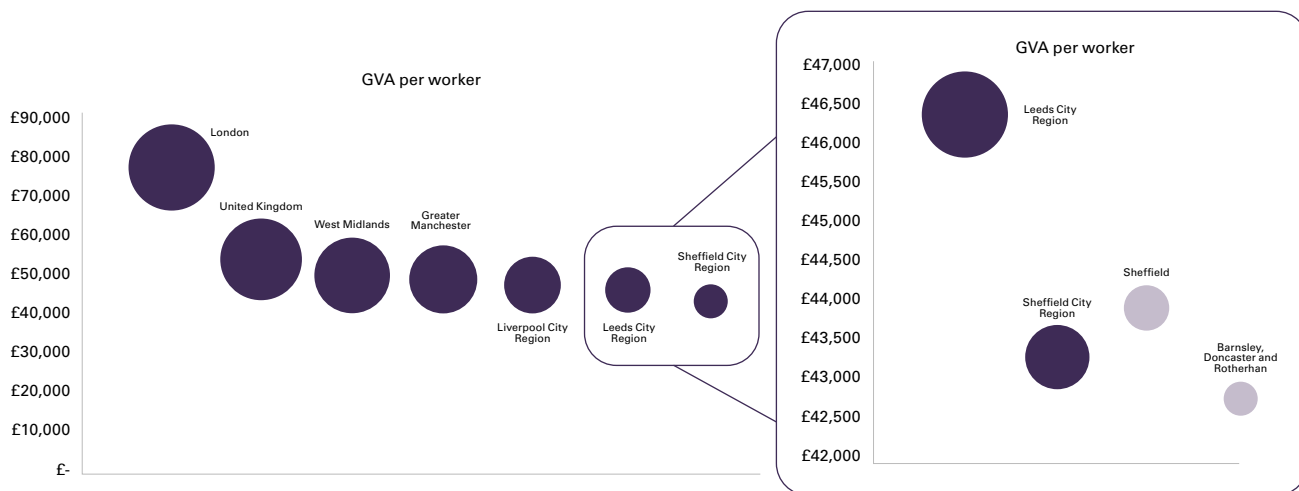
Financial benefit to the
public purse as a result
of 94,650 fewer people
out of work

These benefits confirm that investment in South Yorkshire is prudent and sensible and will provide a valuable return on investment for the local and national economy. The LEP and MCA's track record of delivery will ensure that these opportunities are realised in this generation. South Yorkshire has made remarkable progress, but the transformation is only just beginning. Our track record, combined with the economic potential set out in this SEP, shows how investment can deliver a stronger, greener and fairer South Yorkshire.

Appendix A – Summary of Evidence Base

Over the last decade the SCR economy has grown much faster than expected. Latest figures show the economy generated £27bn in GVA (around 8% of the Northern Powerhouse total)³⁴. The GVA, job growth, and business start-up targets³⁵ that were set in the 2015-2025 SEP have all been exceeded. However, SCR still lags the England average for productivity and is ranked 33rd out of 38 LEP areas, which is lower than all other English city regions.

Figure 5: Productivity per worker



Source: ONS GVA per worker estimates 2018

In addition, the benefits of productivity gains have not been felt by the majority of our population. Growth since 2015 has predominantly been in low-wage and lower productivity sectors (such as public administration, health/care, education, and logistics)³⁶ and low-skill occupations (such as administration, trades, and service occupations).

This SEP aims to achieve a step change and give everyone an opportunity to benefit from prosperity, not just those working in high-wage and high-skill professions.

³⁴This data refers to SCR’s current composition of the nine local authorities of Barnsley, Bassetlaw, Bolsover, Chesterfield, Derbyshire Dales, Doncaster, North East Derbyshire, Rotherham and Sheffield. From April 2020, SCR will only comprise the four South Yorkshire authorities of Barnsley, Doncaster, Rotherham and Sheffield – data from ONS.

³⁵This data refers to SCR’s current composition (see 36) From April 2020, SCR will only comprise the four South Yorkshire authorities of Barnsley, Doncaster, Rotherham and Sheffield – throughout the SEP we have used data for these four authorities where available. However, in some cases, data is only available for the wider city region.

³⁶ONS and EMSI 2019

What's going well?

There are green shoots of economic and productivity growth

Even though our economy has grown ahead of targets set in the last SEP, productivity growth has remained flat – although this has improved in recent years. There are several factors that drive productivity growth³⁷, with many highlighting a lack of innovation; in its broadest sense and in every part of the economy³⁸. Innovation is acknowledged as a vital component for improving productivity and economic development, with the spatial component of this (e.g. clusters within specific geographies) remaining a key theme of economic theory and policy.

There are opportunities for productivity growth. The SCR has strengths in several high-productivity sectors³⁹ relative to the UK average, such as in high-precision engineering and design. We also have a significant proportion of high-growth businesses in sectors such as professional services, and scientific and technical activities.

Our strongest potential to form a distinctive, market-led, and internationally competitive offer exists in fostering and building on our expertise in manufacturing, engineering and materials as well as healthcare, digital and creative technologies.

Our business base is much larger now than in 2015 and evidence points towards increased scale-up potential. SCR has a higher proportion of high-growth businesses⁴⁰ compared with

other similar LEP areas (16% compared with 12% in Greater Manchester and Liverpool and 11% in Tees Valley)⁴¹. Our five-year business survival rate is two percentage points higher than the England average.

The enabling conditions for growth exist but need to be strengthened

Pre-Covid-19, SCR saw high and growing employment rates consistently above other similar city regions. We are home to several globally renowned skills assets and industry-leading examples of technical education delivery, such as the AMRC, AWRC and UTCs. These are changing how the private sector engages with skills institutions and drives innovation.

The City Region is centrally located for national road and rail networks, and DSA is growing in international importance, with passenger numbers on UK, European and Transatlantic flights increasing by 47% since 2016⁴³. We have benefited from some recent transport upgrades and there are major projects in the pipeline, such as NPR and HS2.

Superfast broadband (30mbps) coverage is over 97% within SCR, and our digital sector is diverse, including gaming and entertainment, business software, hardware and devices and telecoms, with the presence of nationally and internationally important firms. However, there is a lack of connectivity around new digital connectivity technologies (e.g. 5g and ultrafast).

³⁷See Productivity Evidence Synthesis - Productivity Insights Network 2018

³⁸As directly measured by patents or indirectly measured through firm surveys or research studies

³⁹In GVA terms

⁴⁰Defined broadly as a company that has seen 20% growth in turnover and employment in the past 3 years.

⁴¹Sheffield City Region Economic Evidence Base (2019)

⁴²Inclusive Growth Report – SCR. CRESR (2019)

⁴³Sheffield City Region Economic Evidence Base (2019)

We are also in a strong position to develop and implement solutions that will place clean growth and energy efficiency at the heart of our industrial base. This includes the opportunity to build on our strong research capabilities, major employment sites, local engineering and manufacturing supply chains, and strengths in logistics to manufacturing in the low carbon market; contributing towards the net-zero carbon emissions target set by SCR MCA for 2040⁴⁴.

What needs improvement?

Productivity growth remains important

SCR needs more jobs but the level of productivity is the most fundamental and important factor determining the standard of living. The UK is facing a productivity crisis and SCR has some of the lowest levels of productivity in England. In SCR, higher productivity sectors represent a relatively small share of jobs⁴⁵ and the strongest employment growth is forecast in lower productivity sectors (such as residential care, food, logistics, retail and warehousing)⁴⁶. There is evidence that the productivity is impacted by this structural composition of the economy but also by a lack of firms headquartered in SCR and by undeveloped supply chains⁴⁷. This is compounded by overall low levels of inward investment and exporting (compared with UK averages) and limited entrepreneurial behaviour, resulting in sub-optimal private sector business creation.

Supporting conditions for growth require addressing

Innovation - Around £325 million is spent on R&D in the SCR with almost 65% of that total spent by our two universities. The share of business investment, UK Government and private non-profit expenditure on R&D in SCR is low compared to the national average (despite pockets of greater investment). Whilst this is only one measure of innovation, it confirms that the innovation platform in South Yorkshire needs to be re-framed. There are opportunities to rebuild our innovation landscape. Many aspects of innovation are flourishing in the SCR, presenting opportunities for new, wealth-creating products and services, but the evidence shows that not enough companies are taking full advantage of these opportunities. SCR has the track record and institutional capacity to invest in translational research to explore models for new interventions that will raise productivity levels – not just in traditional ‘high technology’ sectors, but also in areas of the foundational economy such as social care and retail.

Education, Skills and Employment

SCR’s occupational profile is weighted more towards lower skilled occupations. We have a higher share of low-skilled jobs (36%) and a lower share of managerial and professional jobs (43%) compared to the national average (33% and 47%). Also compared to the national average, we have a slightly higher proportion of people with no qualifications (8% compared to 7.8%) and a lower proportion with higher level skills (33% compared with 39%)⁴⁸.

⁴⁴Each individual area within SCR has its own carbon neutral target and this figure is the whole SCR target.

⁴⁵For example; Professional, Scientific and Technical Activities make up 5.9% of jobs compared to 8.7% in the national economy.

⁴⁶EMSI sector and employment forecasts to 2040.

⁴⁷As identified in SCR Evidence base and GIC evidence base.

⁴⁸ONS - Annual Population Survey 2019

There are also known skills mismatches and skill supply constraints in the economy, with areas such as Sheffield experiencing under-employment of qualified people, while other areas struggle to retain highly skilled people. Educational attainment at all educational levels is often below the national average⁴⁹ in too many areas, with a close alignment between areas that have poor educational outcomes, high deprivation and higher levels of worklessness.

Prosperity and Inclusion - Workplace earnings are significantly lower than the national and regional averages⁵⁰ and one third of SCR's workforce is employed in the four sectors most strongly associated with in-work poverty (wholesale and retail, accommodation and food, administrative and support services, and residential care). There has also been an increase in temporary and flexible working which, though welcome for some, presents challenges for low wage economies. There is also evidence that several groups remain distant from the labour market (e.g. ethnic minorities, disabled people and women). The number of people that are economically inactive due to temporary ill-health and long-term illness is significantly higher at 29% than the England average (25%), indicating serious health inequality⁵¹.

Development and Place - SCR has opportunities through its available development land and commercial space but this is often low value, constrained or lacking the digital, transport or flood protection infrastructure required to encourage businesses to invest and relocate. This holds back speculative development and retention of businesses looking to grow. SCR has spatial inequalities in terms of deprivation, access to employment and health outcomes, affecting quality of life for our communities. Many of our urban centres are fighting back against the ongoing retail restructuring. SCR has substantial natural capital, heritage and sporting assets; but despite these advantages, visitor numbers, spend, and participation in culture is relatively low. The impact of wider environmental degradation and flood risk is also affecting lives and livelihoods and the level of risk is likely to increase with climate change.



⁴⁹DfE - Attainment and Progression Data 2019

⁵⁰ONS - Annual Survey of Hours and Earnings 2019

⁵¹ONS - Annual Population survey 2019

Connectivity - Congestion and connectivity challenges across the transport network restrain economic growth, inclusion and environmental sustainability. Poor rail connections (both in terms of regularity and quality) within the City Region, and a substantially high proportion of journeys made by car, contribute to congestion and poor air quality. Across the four local authorities, SCR has 28 Air Quality Management Areas. Current superfast broadband connectivity (30mbps) needs upgrading to 100mbps to satisfy the requirements of businesses and domestic consumers over the next five to ten years. Full fibre infrastructure in SCR is presently at 3.62%, which is half the national average⁵² and insufficient to support the exponential increase in broadband service demand. Digital exclusion is high in some areas, particularly Barnsley and Doncaster.

Shift to Low Carbon - SCR has a higher proportion of energy-intensive businesses than the national average with a heavy reliance on fossil fuels. Only a low proportion of SMEs have adopted energy-efficiency measures, and most of the existing housing stock is not energy-efficient. 87% of homes in the City Region have a poor energy rating, with 93,000 households in fuel poverty⁵³. However, SCR has internationally excellent and world-leading research in environmental technologies. The opportunity for exploiting and translating this research into commercial products and alternative energy supply is significant.



⁵²SuperFast South Yorkshire 2019

⁵³SCR Energy Strategy (Forthcoming)

Market Opportunities for SCR

Several opportunities are before us which could have a significant impact on our economy and our communities. We will work to capitalise on these:



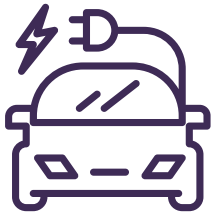
Healthy Communities – Across the world, innovation in approaches to prevention, treatment and public health practice are changing the structure of health and care systems and improving lives for many people. The response to Covid-19 and demographic change is an increasingly dominant economic theme. This leads to economic opportunities (e.g. new models of healthcare and employment) and challenges (e.g. retraining, upskilling, care). What is certain is that it necessitates a rethink of care and health systems across SCR. Through SCR's health strengths, especially the AWRC, we have the potential to lead cutting-edge prevention techniques and support new economic opportunities.



Climate Change and Transition to a Net-Zero Carbon Economy – The national commitment to achieve net-zero carbon emissions by 2050 has been translated to a commitment to achieve the same goal by 2040 for SCR. Therefore, our approach to delivering this SEP must enable this transition. Achieving the net-zero goal will require major changes in how we work, live and travel, while also creating economic opportunities for SCR. In addition, extreme climate events, such as flooding, will increase in frequency, therefore resilience to these risks must be enhanced for SCR's residents, business and visitors.



Industry 4.0 – This is characterised by major changes to the way we live, work and communicate due to the adoption of cyber physical systems, the Internet of Things, and the Internet of Systems. Industry 4.0 will lead to much greater digitisation across all industries and aspects of society, as well as the need for much better digital infrastructure. SCR has a strong creative and digital economy and our capabilities are well aligned to the opportunities (e.g. industrial digitisation) presented by Industry 4.0. SCR will also be affected by the automation of jobs in sectors that form a large part of our economy, which is both an opportunity and a threat.



Intelligent Mobility – Technology is changing the way people access travel information and how they use transport. In the last ten years, the rise in on-demand travel, growth in mobile technologies, and our understanding of people and transport movements has increased substantially. Looking to the future, the growth of autonomous vehicles, and digital transport and assistive technologies, could radically change how people travel to work and access education and leisure. SCR’s research and industrial capabilities in the development of sustainable fuels mean we are well-placed to deliver alternative fuel technology to support intelligent mobility. It will be important in addressing transport poverty and ensuring that areas of deprivation are better connected to employment opportunities.



New Markets – As well as selling products and services across the UK, SCR businesses are strongly integrated into global markets. Significant changes in the global economy present opportunities for our assets, skills and industries. The strong performance of economies outside of Europe presents huge commercial (e.g. trade), cultural (e.g. touring exhibitions) and skills (e.g. students) opportunities. There is also the need to exploit existing markets through the development of supply chains both within the SCR and other city regions.



Appendix B – Vibrant and Resilient Places

Barnsley

Barnsley's vision is to “build a sustainable inclusive economy which benefits all its communities”. This aligns with SCR MCA's focus on inclusive growth, noting that the parameters of inclusive growth require a different spatial focus.

Barnsley is focused on delivery against four key priorities:

- **Growth** – Barnsley is seeking a step change in transitioning towards good economic growth that is aligned to the wider three priorities.
- **Human Capital** – Barnsley is continuing to deliver a ‘More and Better Jobs Strategy’ with a focus on enabling residents to get into work, get on in work and stay in work. This also prioritises development of skills pathways in key sectors.
- **Zero 40** – Barnsley is seeking to reduce emissions to net-zero by 2040. The strategy (called Zero40) will be delivered through four five-year action plans from 2020 to 2040 which include developing a green economy both in terms of employment and business growth opportunities.
- **Health Inequality and Deprivation** – A central element of inclusive growth is to ensure that all residents benefit from economic growth in Barnsley. This includes addressing health, skills and employability challenges within communities.

Delivering on these priorities requires a holistic approach given the co-dependencies and linkages between each strand.

Economic Role

Barnsley's location and growth opportunities position the borough as a key node in future northern prosperity. Barnsley's economic strategy outlines the delivery of good growth for its communities.

The Council has committed to creating a 2030 vision for the borough which will include all key stakeholders, and will be co-produced with Barnsley residents, communities and businesses. The 2030 vision will set and define Barnsley's long-term priorities moving forward.

The main immediate challenge and opportunity for Barnsley is to see a real shift in terms of economic strategy to ensure that the growth delivered at both a local and regional level, directly benefits all residents and communities. Despite achieving a good level of growth over recent years, Barnsley still has significant areas of deprivation and health inequalities across the borough. Therefore, any future strategy must seek to deliver systematic change; ensuring that sustained and equitable growth is delivered across the borough.

Partnership Working – Our Shared Priorities

Barnsley is seeking to ensure that growth is inclusive and sustainable by improving educational outcomes and skills for adults as well as young people; providing pathways to more and better jobs, increasing entrepreneurship, tackling transport poverty and increasing sustainable and active travel. SCR MCA is seeking to support this ambition and will work with Barnsley on the following key priorities:

1. Prioritisation of Urban Centres

Urban Centres and place remain a priority for Barnsley and SCR. Barnsley is looking at the next stage of rethinking high streets and place shaping in the town. SCR MCA has worked with Barnsley to invest in the town centre; for example, the £180m Glassworks scheme. The regeneration of the town centre and completion of the award-winning Glassworks scheme is an immediate priority.

SCR MCA will work with Barnsley on their Principal Towns Programmes and aligning future urban centre funding opportunities to further capitalise on the foundations that have been established across the borough. This includes the Stronger Towns Funding for places like Goldthorpe, which provides a platform to unlock urban inclusive growth. SCR MCA will also work with Barnsley on a framework for towns funding for its town centre.

2. Delivering Ambitious Plans

Barnsley has adopted an ambitious Local Plan that opens significant amounts of land for housing, creating space for 21,000 new homes, and providing well located strategic sites for employment growth.

SCR MCA will work with Barnsley on this growth opportunity in terms of housing targets, inward investment, indigenous business growth and linkages to other city regions (e.g. Leeds City Region).

3. Improved Transport Connectivity

SCR MCA will work with Barnsley, TfN and other city regions, in improving connections through Barnsley to other large urban areas (e.g. Leeds, Birmingham and London). Within the borough, public transport, rail and active travel is recognised as highly important in encouraging modal shift away from car usage.

SCR MCA has published a Transport Strategy and is seeking to go further on the inclusion agenda with the transport commitments. Addressing transport poverty requires improved public transport connectivity and more joined up decision making. SCR MCA will work with stakeholders across Barnsley to create an excellent, affordable and high-quality transportation system. This includes prioritising access to employment, skills and leisure opportunities, encouraging a shift away from the reliance on the car; which in turn will reduce congestion and significantly contribute to our aspirations for a net-zero carbon economy. There are specific opportunities around connectivity in the Dearne Valley and through Barnsley town centre.

4. Improving Adult Education and Developing Skills Pathways

Barnsley is keen for a regional-led approach to the development of skills pathways for key growth sectors. SCR MCA will work with Barnsley stakeholders to support adults into employment and encourage in-work progression. SCR MCA will use its devolved Adult Education Budget to encourage skills progression in Barnsley and explore creative use of the Apprenticeship Levy to align with the current and future needs of businesses.

5. Health Inequality and Deprivation

SCR MCA will work with Barnsley to ensure that health inequality and deprivation is addressed. This includes exploring ways in which investment can positively uplift health outcomes and encourage innovation in the health sector (e.g. community health sector, NHS).

6. Community-Led Inclusive Economy

Barnsley continues to devolve significant funds and resources through the Area Councils and Ward Alliances neighbourhood working model. Forward-thinking initiatives like this which revitalise community spirit, strengthen civic pride and make tangible improvements to where people live, will be supported by SCR MCA. Similarly, Barnsley's Town Spirit brand and #lovewhereyoulive has gained traction with local communities and led to a surge in local volunteering. SCR MCA will work with Barnsley to strengthen approaches around an inclusive economy, tackling health inequalities and improving the environment in communities.

7. Net-Zero Commitments

SCR MCA is committed to supporting Barnsley in their Zero40 commitments and energising environmental sustainability. Local and regional carbon aspirations will unlock national carbon targets. SCR MCA will work with Barnsley to develop:

- An inclusive economy in Barnsley and prioritise the development and growth of the low carbon sector;
- Make net-zero decisions to ensure that carbon reduction commitments are hard wired into processes;
- Invest in low carbon transport and sustainable travel (e.g. charging points and active travel);
- Support commercial and residential energy use reduction and efficiencies (e.g. solar and battery storage);
- Mandate better quality new housing (e.g. standards), establish retrofitting outcomes for existing homes and incorporating sustainable travel into new developments; and
- Support and invest in innovative climate agenda technologies, propositions and solutions (e.g. Mine Water Energy solutions).

8. Digital Barnsley

Barnsley is showing the importance of local level working. The superfast broadband programme in Barnsley exceeds its targets of take-up (above 50% which exceeds many other areas). Switching Barnsley to full fibre and 5G is a priority which is being built into planning approvals. The growth potential that is presented through digital also includes the digital sector, infrastructure, skills, inclusion and innovation. Specific activities include:

- Creating business support products aligned to unlocking the growth potential of local businesses;
- Unlocking world-class digital infrastructure in Barnsley, related to full fibre and 5g;
- Supporting the adoption of digital technology by SMEs;
- Providing digital skills to businesses in all sectors;
- Supporting work with City Fibre and Openreach to help secure further investment in fibre capability;
- Expanding the Barnsley Digital Campus and wider growth opportunities in Barnsley through focused investments; and
- Seeking further collaborations with skills institutions and businesses in digital and key economic sector



Doncaster

Doncaster is changing. Between 2013 and 2018, GVA increased by £1.42bn (31.8%) creating an economy that is worth almost £5.9bn. More than 1,100 new homes are being constructed annually, far exceeding national targets. New infrastructure and a strong public and private sector partnership are driving growth, with developments delivering thousands of new jobs and homes.

Combined with outstanding national connectivity, new leisure developments and environmental assets, Doncaster is already an exciting place to live, work and do business. Doncaster's mission is:

'To enable Doncaster people, places and businesses to enjoy improved prosperity by participating in a growing and productive economy'.

Economic Role

Doncaster is ready to deliver catalytic change in its economy and transform the borough from a post-industrial town to a vibrant networked city. As a large and rapidly expanding economic node, and home to key economic assets, Doncaster is vital to the success of South Yorkshire and the wider UK economy.

The scale of opportunity from future economic prosperity is significant. Closing the productivity gap in Doncaster would have been worth an extra £1.75bn to the South Yorkshire economy in 2017. In addition to narrowing this productivity gap, Doncaster will create 26,000 new jobs over the next 15 years – doubling the ‘business as usual’ figure.

Partnership Working – Our Shared Priorities

The Doncaster Inclusive Growth Strategy sets out six key drivers that will deliver this growth and ensure that all residents are able to benefit from the new opportunities being created: Quality of Life; Industry Specialisms; Education and Skills; Better Work and Jobs; Social Value and Community Wealth Building; Reaching Vulnerable People and Places. SCR MCA is seeking to support the ambitions outlined in this document and will work with Doncaster on the following key priorities:

1. Fostering Industry Specialisms

Doncaster’s existing industry strengths will form the basis of its future economic growth, increasing productivity and helping to achieve greater economic resilience. Key industries to support economic development include:

- **Intelligent Mobility** – Transporting people and goods across all modes including the products and services that support road, rail and air transport and infrastructure.
- **Engineering and Technology** – Engineering and technology products and services (e.g. civil engineering), and those that rely on engineering and technology skills, tools or inputs.
- **Creative and Digital Industries** – Industries that trade on individual and organisational creativity, generate and distribute digital content, utilise digital platforms as the basis of – or delivery of – their products, or create/exploit digital technology.

- **Advanced Materials** – The production and supply of plastics, glass, metals, stone and rubber and related products and the technologies required to create them.
- **Supporting Services** – Comprising a range of professional and business services sectors.
- **Foundational Economy** – Particularly health, medical and social care; the largest employment sector in Doncaster.
- **Green Industries** – Exploiting the opportunities created by new technologies, while underpinning our commitment to tackle climate change.

2. Growing Priority Areas

There are several geographic areas within Doncaster which will be the focus of growth. Each of these locations has unique strengths, outstanding connectivity and large land allocations for commercial and residential development. These sites also link to Doncaster's industry specialisms and provide a focus for local and city regional economic development support (e.g. innovation, densification). They are:

- **Doncaster Town Centre** – Which includes the waterfront urban centre extension.
- **Doncaster Sheffield Airport** – Building on the existing growth, the areas has scope for over 2,000 new homes and over 50ha of employment space.
- **Unity (Hatfield & Stainforth)** - Development site with scope for 3,100 new homes and over 56ha of commercial development.

3. Improving Transport and Digital Connectivity

SCR MCA will work with Doncaster to connect people and places. Doncaster's aspiration is for outstanding local, regional, national and international transport and digital connectivity. Maximising and improving the transport and digital network will benefit local communities and key employment sites. Key to these are road connectivity, rail access, integrated public transport and active travel infrastructure.

4. An Asset-Based Approach to Community Development

Building on Doncaster's Education Opportunity Area, major infrastructure, skills and business growth initiatives and community wealth building, SCR MCA will work with Doncaster to continue its local, bottom-up approach to community engagement and service delivery.

5. Establishing a University City and Driving Skills and Lifelong Learning

Doncaster's commitment to lifelong learning is the Doncaster University City project. Based on collaboration with the SCR MCA, and a number of local Further Education and Higher Education Institutions, University City will include a town centre campus located at the Waterfront, the development of a collective prospectus and four Centres of Excellence. The Centres of Excellence link directly to Doncaster's economic strengths, opportunities and priorities. This will be supported by complementary programmes and education developments, such as the new Doncaster University Technical College and diverse schooling models.

6. Sustainable, Networked and Vibrant Doncaster

The strength of Doncaster's communities and urban centre is fundamental to achieving its ambition of becoming a sustainable, networked city. Each place has a distinctive role as a vibrant area to live and learn. SCR MCA will work with Doncaster to ensure its principal towns are characterised by high quality public realm, green spaces and strong community facilities, including excellent housing, health and education services. The sustainability and vitality of Doncaster's villages and rural communities will also be promoted through appropriate development.

SCR MCA will work with Doncaster to ensure that environmental sustainability and biodiversity net gain are considered when developing plans for improving land use, green spaces, water resource management, transport and the built environment.





Rotherham

Rotherham's economic ambition is to be an attractive, desirable place to live, at the forefront of the new manufacturing economy in the North, with high quality neighbourhoods connected to economic opportunities across the borough and the wider City Region.

Rotherham is central within South Yorkshire and England. It has an abundance of green space, a growing leisure economy, a town centre poised for regeneration, a number of distinctive towns such as Maltby, and well-connected employment sites with industrial capability and expertise.

Economic Role

Building on historic strengths in steel and engineering, Rotherham has successfully modernised heritage industries and has a strong reputation in advanced manufacturing, engineering and materials. It has developed an innovation network concept that has international resonance, and AMID attracts industry leaders across the globe to collaborate on the commercialisation of research and development.

Rotherham's recent economic growth has been supported by the incubation of ideas, skills and businesses, and delivered through four Council-operated business incubation centres, the UK's High Value Manufacturing Catapult, the AMRC 'Centre of Excellence' for apprenticeships, incubation facilities at the Advanced Manufacturing Park Technology Centre, and innovative and enterprising programmes for new business ideas such as Y-Accelerator.

AMID is based on the clustering and connectivity of economic assets such as world-class manufacturing brands McLaren and Rolls-Royce, and the UK's Advanced Manufacturing Catapult. Therefore, although centred on the Don Valley corridor, it has inherently fluid geographic boundaries, and Rotherham's regeneration ambition extends to a wider geography.

Partnership Working – Our Shared Priorities

Rotherham is well placed to build on the innovation, growth and enterprise activities outlined in this SEP. Building on the opportunity to develop the new manufacturing economy across the borough, Rotherham will create a unique asset for the city region; a place that draws-in and develops world class people, a place where world-leading companies come to explore new technologies and operating methods and where research and technology can be commercialised and delivered through the SCR and UK supply chains. SCR MCA will support Rotherham in delivering the following key priorities:

1. High Quality housing and regeneration

SCR MCA will work with Rotherham to deliver the vision for Rotherham Town Centre and overcome the challenges it is facing. This will involve shifting the focus from an outdated retail-focussed model to a more diverse and multi-faceted offer, which provides modern and exciting places to live, work and visit, a welcoming, attractive and connected urban environment, and a vibrant cultural offering. Work on the Towns Fund will result in a Town Investment Plan being produced that will set out the borough's key infrastructure and regeneration priorities for the next exciting phase of development for Rotherham Town Centre.

2. Densification of Manufacturing

SCR MCA will work with Rotherham to establish the area as the centre of the new manufacturing economy in the North of England. SCR MCA will work with Rotherham to power an innovation-

led manufacturing network across SCR and be the industrial centre of the new manufacturing economy. SCR MCA will ensure that inclusive pathways and productivity growth are unlocked through the sharing of capital, the pooling of labour, and specialisation and matching of local supply chains.

SCR MCA will work with Rotherham to physically connect the new manufacturing economy to areas and communities to distribute the benefits and create new skills programmes and job opportunities. This will enable a full range of options for Rotherham communities to develop high-tech skills, find graduate placements, enlist in high quality apprenticeships, seek re-training and upgrade their skills.

3. Expanding the New Manufacturing Economy to Deliver Inclusive Regeneration Across the Borough

The expansion of new manufacturing opportunities is a model of collaboration between industry and the public sector that has underpinned Rotherham's success in commercialising research and innovation in advanced manufacturing, engineering and materials. It will address future challenges in related industries such as low carbon energy, light-weighting and automation.

SCR MCA will work with Rotherham to unlock several well-connected employment sites across the borough including Swinton, Wath and Manvers (as part of the wider Dearne Valley), Maltby, Hellaby, Thurcroft, Dinnington, Wales, and Woodhouse Mill.

SCR MCA will also work with Rotherham to scale-up AMID and expand its fluid geography. Waverley is the area that is most closely associated with AMID but the wider area, including parts of

Sheffield, have the potential to become part of the AMID concept. SCR MCA will work with Rotherham and others, to promote a compelling and distinctive brand for new manufacturing, attract interest and establish credibility with global industry leaders.

4. Connecting the Town Centre to the Northern, Eastern and Southern Economic Corridors

At a sub-regional level and a local level, there is a coherent case for smarter decision making around local transport connectivity. SCR MCA will work with Rotherham to unlock sustainable transport options across AMID, Waverley and the wider area to provide a step change in transport connectivity.

SCR MCA will work with Rotherham to build a strategic business case for major infrastructure investment including transport connectivity within central Rotherham and its northern, eastern and southern economic corridors, to allow a broader range of communities and businesses to share the benefits of the new manufacturing economy. This includes developing business cases for:

- A mainline station in Rotherham, which would significantly increase regional and national connectivity, as well as providing the opportunity to unleash the full potential of tram-train by maximising frequencies and facilitating extensions;
- Working with other South Yorkshire authorities to explore economically beneficial tram and tram train extensions; and
- Transport connectivity for Rotherham's rural areas and growing visitor economies in Rother Valley and Wentworth.

SCR MCA will also develop Rotherham's active travel infrastructure, taking into consideration its public health, and environmental plans. This will build on committed funding and will look at the next phase of investment required.

5. Harnessing and Improving the Green and Blue Infrastructure

Making best use of our green and blue Infrastructure is critical. SCR MCA will work with Rotherham to ensure rivers and green spaces are a significant asset both in Rotherham town centre and across the borough. In support of this, and in recognition of the devastating flooding events in 2019 across South Yorkshire, SCR and Rotherham will seek investment and action on Flood Alleviation Schemes.

Following Rotherham's commitment to a climate emergency, SCR MCA will work with the Council on delivering its commitment and action plan. This will also align with SCR's clean energy and net-zero carbon activities whilst also seeking to enhance local interventions.

6. Enhance Skills Development and Broaden Opportunities for Residents

A key priority for Rotherham is growing local pride and ambition by ensuring that local communities benefit from regeneration and economic growth. Connecting communities with opportunities will distribute the benefits of economic growth more evenly. Going forward, SCR MCA will seek to leverage investment in the University Centre Rotherham and the AMRC Training Centre to help capture the full range of opportunities for local people.

SCR MCA will work with Rotherham's Employment and Skills Strategy, 'Extending Prosperity to All' to maximise opportunities and invest in projects that respond to the needs of the local economy.

7. Develop Inclusive Growth Through Strengthened Local Supply Chains

SCR MCA will help to champion social value and inclusive growth activities across South Yorkshire. SCR will work with Rotherham around key priorities such as wages, living standards and sustainability, and will focus on policies and interventions that strengthen the local supply chain. This will include building the capacity and sustainability of SMEs and local voluntary organisations and making a commitment to maximise local spend.



Sheffield

Sheffield's vision is for a stronger, more inclusive and sustainable economy that improves people's lives. By harnessing growth in a way that increases skills and business productivity, more people will be enabled to contribute to and benefit from a prosperous economy. To achieve this, more businesses need to start-up, grow and invest. Education, skills and training support also needs to be delivered to enable local people to access fulfilling and rewarding jobs.

Sheffield's unique economic and cultural assets need to become a stronger magnet to attract innovative and creative businesses and visitors.

The importance of place will underpin Sheffield's approach to the city's economy: with both the city centre and AMID forming concentrations of economic activity and innovation communities. Sheffield's reputation as the 'Outdoor City' offers superior quality of life, combining outdoor adventure and city culture.

All this needs to be underpinned by a strong transport system and a good quality housing offer, whilst acknowledging the intrinsic links that the economy has with people's health and the environment. The potential of Sheffield's economy needs to be unlocked so that it plays its part in reducing the city's health inequalities and carbon footprint.



Economic Role

As the only city in the Sheffield City Region, Sheffield is a major employment centre for the SCR economy, particularly for higher skilled jobs. Sheffield has a concentration of knowledge intensive businesses, especially in advanced manufacturing, creative and digital industries, healthcare technologies and business, professional and financial services. It also acts as a major transport hub for the City Region.

Partnership Working – Our Shared Priorities

SCR MCA will work with Sheffield on the following key priorities:

1. Creating an Inclusive Wellbeing Economy

SCR MCA will work with Sheffield to create an economy that works for everyone living and working in Sheffield; the aspiration being for all people to live well, realise their ambitions and contribute to the life of Sheffield and the wider City Region.

2. Increasing 'good' jobs and boosting business growth

SCR MCA will work with Sheffield on their skills strategy and outline how progression routes can be developed to ensure that local residents are able to access a range of education and employment opportunities. Key to this is creating the aspirational jobs which are critical to address the productivity challenge and low wages across SCR.

3. Supporting the growth of productive and competitive businesses

Wages in Sheffield are some of the lowest in the country and business density is low compared to other major cities. It is imperative that Sheffield residents earn more and that there is a stronger economy in Sheffield that creates new opportunities for people. SCR MCA will work with Sheffield to tackle low pay, create quality jobs and boost business growth, particularly amongst the SMEs that form the bedrock of the economy.

SCR MCA will support Sheffield in utilising the universities' research expertise, business potential and community energy to transition to a sustainable and low-carbon economy. SCR MCA will work with Sheffield to develop a successful and growing 'low carbon and clean energy' sector; creating and providing jobs, services and products locally.

4. Recognising the importance of place

Sheffield's city centre is a distinct and strong economic growth area. It has a concentration of highly skilled sectors as well as valuable cultural assets and two world class universities. SCR MCA will work with Sheffield on the main priorities within the city centre:

- **Completion of Heart of the City 2** – A mixed use development delivering high quality retail, leisure, offices, residential space, restaurants and public realm.
- **The Sheaf Valley and Midland Station** – HS2 and Northern Powerhouse will be the catalyst for this next major regeneration project in the city centre, maximising the opportunities created by improved connectivity to expand the city centre's business districts and delivering accessibility and air quality improvements for the area.
- **Housing** – Ambitions to significantly increase the number and choice of housing options in the city centre, including developments at Kelham Neepsend (with potential funding through the Housing Infrastructure Fund) and the Devonshire Quarter.
- Development is also expected as part of the University campuses, West Bar, the Moor and Moorfoot and Castlegate.

AMID is one of Europe's leading innovation-led, Advanced Manufacturing districts, where world-class manufacturers collaborate and co-locate alongside a concentration of skilled engineers, high-tech firms and applied research facilities. SCR MCA will work on priorities for the area such as:

- Growing the pipeline of world-class innovation, research and technology assets that attract inward investment and produce knowledge spill-overs in new emerging markets;
- Creating a supportive environment for good ideas to lead to more business start-ups, with local SME's benefitting from a networked environment that is connected to international markets, new solutions and supply chain opportunities;
- Increasing the number of local residents securing fulfilling employment, or pursuing entrepreneurial pathways into advanced manufacturing occupations;
- Improving accessibility, particularly through public transport options and active travel;
- Addressing congestion issues on the strategic highways network. Much of the Lower Don Valley's ability to accommodate future growth of AMID depends on addressing traffic congestion and associated air quality issues in the area; and
- Opportunities for regeneration for employment land and developing a broader mix of sustainable housing and amenities with a direct and visible impact on the development of adjacent communities such as Attercliffe.
- Outdoor city brand – SCR MCA will work with Sheffield to build upon the 'Outdoor City' brand and offer a superior quality of life, combining outdoor adventure and city culture.

5. Consolidating Sheffield as a Magnet City

Sheffield is a destination city; a magnet for enterprise and talent, a hub of employment and curator of creativity and culture. As part of Sheffield's Magnet City proposition, SCR MCA will work collaboratively on the magnet city principles (including assets strategy, the Outdoor City brand and physical renewal), to create a high-performing, productive, high-quality city environment that provides opportunity for business, employment, residential and culture communities.

6. Transformed transport connectivity linking people to jobs and cities to each other

Sheffield's vision for transport, as set out in its Transport Strategy, is 'Reliable and clean journeys for everyone in a flourishing Sheffield'; where it is easier to get around the city, it is better connected, safer and more sustainable. SCR MCA will work with Sheffield to make sure that everyone across the City Region has access to highly-skilled job opportunities, skills and education and cultural assets in Sheffield.

A well-functioning city transport system contributes to both economic growth and people's quality of life. Sheffield is a physically large, and topographically diverse city. SCR MCA will work with Sheffield on targeted investment in new transport infrastructure to ensure that by 2034, Sheffield's transport system eases congestion, improves access across the city and facilitates rapid connection to other cities. SCR will specifically work with Sheffield on:

- Ensuring the transport system opens up the city's economic opportunities for everyone;
- Becoming a leading low-carbon city, with a transport system that supports low emission travel and improvements in air quality; and
- Developing active travel infrastructure and programmes.

7. Housing that provides quality, choice and affordability across the city

Sheffield is recognised as being a city with some of the highest quality neighbourhoods in the North of England. This is a major asset and means that wealth generated and earned in Sheffield often stays within the city. SCR MCA will work with Sheffield to deliver a housing market that provides quality, choice and affordability across the city. This includes increasing the amount of housing, making sure all neighbourhoods are vibrant and sustainable and improving the quality of existing housing.

8. Growing an environmentally sustainable, more resilient economy

Sheffield is working towards becoming a net-zero carbon city by 2030, is paying its full contribution to the Paris Climate Change agreements and responding to the climate emergency. With rising fuel and energy prices, congestion and air quality issues, Sheffield needs to move onto a more sustainable footing to ensure that the city remains resilient to the effects of climate change as it changes and grows. Sustainability and the impact of climate change will cut across everything that SCR MCA and all local authorities do. SCR MCA will work with Sheffield on the many challenges the city faces relating to climate change such as energy resilience, flooding and transport.



Our new strategic economic plan will improve prosperity and create opportunity for all, while protecting our environment.

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