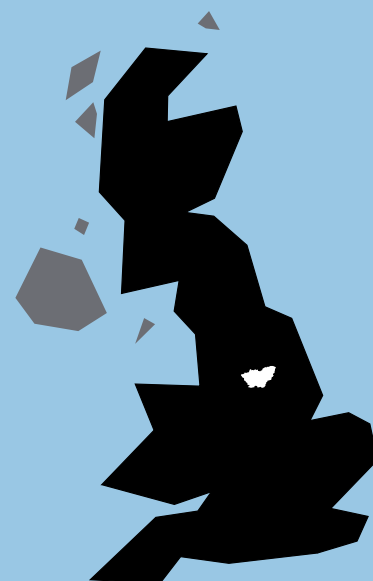


Our Strategic Economic Plan 2021-2041

Version: 2 01.01.2022



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Executive Summary

The Opportunity

The South Yorkshire (SY) economy has huge untapped potential, but it faces some major challenges. Our productivity is lower than it should be. Too few of our businesses innovate or operate in national and global supply chains. Our transport system and urban centres need improvement to match the level of our ambition. Too few of our people have the right qualifications to get into and stay in employment matching their potential, they have too little stake in their work, and that work too often does not translate to genuine wellbeing. And we have yet to meet the urgent need to decarbonize.

These challenges are holding back our people, and our region, from fulfilling their potential. Yet the same capabilities and entrepreneurship 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. There is a huge need across the world for 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 and designing quality places to live
- Capabilities to transition to a net-zero carbon economy
- 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.

Our research base, our institutions, our businesses and our people make us superbly placed to meet these challenges and take advantage of the opportunity they present. 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:

We 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 growth that helps create a better society. We will seek to build an economy which better supports and rewards innovation, enterprise and hard work. We will encourage a wider and more equitable distribution of its fruits, and a greater stake and say for ordinary people in the economy. We will work to decouple prosperity from environmental harm. More supportive of enterprise, more sustainable, more equitable: that is our path to a Stronger, Greener, Fairer economy.

If we get this right:

1. We will be a net contributor to the national economy, supporting innovation and entrepreneurship, retaining talent rather than exporting it, and attracting new investors to locate in the region;
2. Our people will be happier, healthier, better off, better qualified and better able to access good opportunities;
3. We will have a high-quality natural environment which will contribute to an improved quality of life and wellbeing.
4. We will build a zero-carbon future through hydrogen, nuclear fusion, carbon capture utilisation and storage, and other clean energy technologies;
5. We will lead the world in testing, developing and commercialising ideas emerging from our research community and businesses;
6. 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 zero 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. Our residents, businesses and all our communities are at the heart of this plan.

Across South Yorkshire, 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 helping them grow and access new markets.

We will build on our successful Advanced Manufacturing Innovation District. 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 MCA 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.



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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, and reaching net-zero emissions by 2041.
- **invest** in our urban centres, arts, culture, and our natural capital.
- **build** a fairer, more inclusive economy, linked more closely to wellbeing and to our communities – helping people gain a greater stake in their work and removing barriers so everyone has the chance to prosper.
- **develop** our transport infrastructure – so people and products can better move and trade around our region, nation and the globe.
- 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, and grow businesses that help transform our economy, create opportunities for young people and inspire the next generation. We will seek to leverage public spending for greater social value.



By 2041 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 SY at birth.



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 and Mayor

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. 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.



James Muir, Chair of the South Yorkshire Local Enterprise Partnership Board.



Dan Jarvis MP, Mayor of South Yorkshire

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 an 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 the climate emergency.

Our people and communities must have the opportunity to shape, 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 South Yorkshire and Neighbouring Local Enterprise Partnerships

1. The Vision for 2041

Vision

We 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

Growth

Growing the economy and enhancing its strength and resilience.

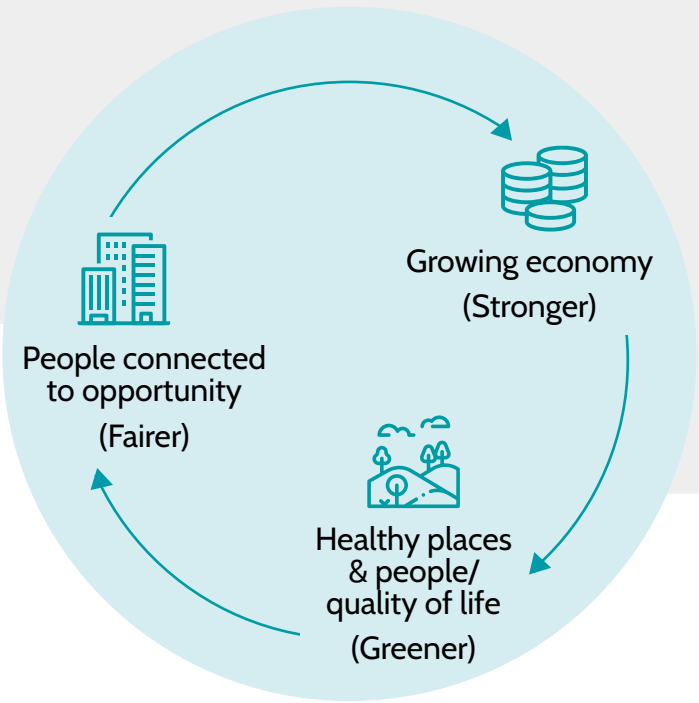
Inclusion

Ensuring that everyone has a fair opportunity to contribute to and benefit from economic growth, that people have a greater stake in their economy, and that work is more closely linked to wellbeing and a decent life.

Sustainability

Driving low carbon, green and circular economy opportunities within the economy and delivering net-zero emissions and lower overall environmental impact.

Outcomes



1.1 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. We still want to grow our economy, but we want to make it better, not just bigger. Growth is important, but as a means to the end of creating better lives for our people, healthier communities, and a stronger, greener and fairer future.

We want to build a better economy, higher value and higher tech, more directly linked to the wellbeing of our population and planet, where people are more engaged and empowered to share in the fruits of their labour. That does not sit in opposition to entrepreneurship: on the contrary it seeks to widen access to it.

Productivity¹ remains a key part of this challenge, as a strong determinant not just of economic growth but of quality of life and wellbeing. The evidence indicates that we must foster a much stronger culture of innovation to grow our productivity, accelerate the pace of economic growth, and give people better lives.

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. 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 the 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. SYMCA's productivity compares unfavourably to other UK LEP areas and other post-industrial regions in Europe.



¹SYMCA'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 fair

The South Yorkshire 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.

Those actions cut across every part of the SY MCA and LEP's work, from skills and education to transport to business support. But some areas are particularly worthy highlighting.

The first is around encouraging greater engagement and a wider share in the economy. If we want a bigger and more inclusive economy in South Yorkshire, we need to help communities and individuals engage with it more directly.

The MCA and the LEP are committed to achieving greater inclusion, higher labour standards and better relations between employers and staff. As part of that commitment the MCA and LEP will encourage, as appropriate, different forms of business ownership and other measures which give our people a greater stake in their work and the economy. We will also look to involve communities and individuals more in shaping policy decisions around the economy.

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 are then expected to produce wider benefits through 'trickle down'. There are specific inclusion challenges for the SY MCA 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.

Secondly, SYMCA will seek to implement principles of Community Wealth Building and the Wellbeing Economy. We will work to create social value and advance our key policy priorities, for example by supporting local employment and local businesses, incentivizing companies to offer apprenticeships, and encouraging higher labour standards and decarbonisation. We will encourage local anchor institutions to do the same.

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 and wellbeing. 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.

1.3 Growth should also support a net-zero carbon future

The climate emergency 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. Furthermore, circular economy approaches have become more prominent. 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.

Health and the South Yorkshire economy

Covid-19 has clearly illustrated 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 people being unable to work (economically inactive). In SY, of those who are economically inactive, nearly

1 in 3 (53,800 people) is due to long-term sickness. This is the largest contributor to economic inactivity.

Encouragingly, SY has a higher proportion of economically inactive people who want to work: 27^d compared to 20^d 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.

SYMCA 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.

1.3.1 Decisions should enhance and protect the climate and natural capital

We must seek to mitigate and adapt to the climate emergency, protect our environment, 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 SY's growth prospects. The transition will unlock numerous opportunities, have many co-benefits for people's health and wellbeing 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 address barriers to 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 a global climate emergency 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'.

SY 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-resilient economy.



1.4 Growing South Yorkshire'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 SY economy. These enablers are skills and employability; health and wellbeing; mobility; digital connectivity; clean energy; land assets, housing and the built environment; and liveability.

Underpinning these enablers is the importance of locally distinctive, accessible and vibrant places. Across SY, 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 region.

This SEP provides an opportunity to transform the direction of the economy by tackling SY'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 SY's urban centres requires the appropriate mix of economic, social and environmental interventions. Further planning and investment in our urban centres should recognise their unique identities, culture, heritage, and creativity whilst also investing in their future and safety.



³ Our thematic priority areas broadly map across to local authority economic strategies and the drivers of economic and productivity growth
⁴ See 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. SY MCA's leadership will be collaborative and outward looking, working together with other anchor institutions and areas across the North and Midlands.

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, following principles of community wealth building. 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

SY'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 outward 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 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, the MCA will be bolder in the Northern Powerhouse and within the UK Government. At a local level, devolution 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.

h. Involve communities in solution development

The MCA recognises our people, local communities and the voluntary sector as key economic assets and will include them, where possible, in developing solutions, interventions and policy.

i. For the MCA to deliver the ambitions around growth, inclusion and sustainability our approach will need to be targeted, innovative and flexible. Maximising social value through the broad activities (including commissioning and procurement) provides the MCA with an opportunity to make this happen.

SY MCA's sustainability and inclusion plans 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.



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

2. Vibrant and Resilient Places

By harnessing the strengths of SY's people and places, we will create a stronger, greener and fairer 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 health and wellbeing into our policies, investment decisions and initiatives. Recognizing the impact that different living and working conditions have on people's health and wellbeing will help us to focus on ensuring a fairer, greener and stronger economy for all.
- Net-Zero Carbon Economy – Development in SY must reflect our shared agendas around pursuing a net-zero carbon economy, including exploiting the opportunities around public transport, active travel and co-health benefits of reduced air pollution and increased physical activity. SY MCA will work with partners to unlock capabilities and opportunities to drive the net-zero carbon agenda.
- People – All areas across SY are determined to play a role in creating a 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 and work together with them to make communities vibrant and confident.
 - Attract and retain our skilled and qualified people.

- 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. This provides the opportunity for exploring “15 minute city” approaches or identifying roles within a wider economic system.
- Greater density, liveability and vibrancy in our urban centres – Our urban centres in SY are transforming, and a critical role of the SEP is to meet this challenge and future-proof them. This means advocating liveability, maximizing natural capital, unlocking culture, arts, and heritage, harnessing flexibility, and planning for mixed use to ensure that SY’s urban centres are attractive and sustainable. We will work with local areas to modernise and deliver transformational developments. We will utilise digital technology to enable visitors and residents to interact with our places and access public transport, sport, arts and culture. 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, healthier 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. SY 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 whole catchment-based approaches and unlocking our natural environment’s potential.



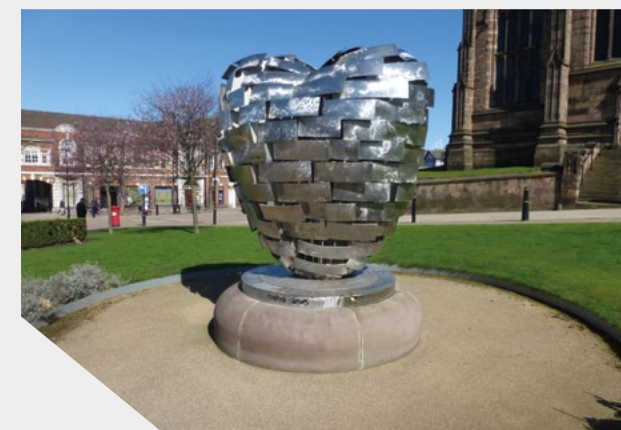


Barnsley

- Prioritisation of urban centres
- Delivering ambitious plans
- Improved and greener transport connectivity
- Improving adult education and developing skills pathways
- Addressing health inequality and deprivation
- Creating a community-led inclusive economy
- Achieving Net-zero carbon commitments
- Future proofing the economy through investment in digital Barnsley

Doncaster

- Improving the prosperity and well-being of people and places
- Developing a more regenerative place with a circular, decarbonised economy.
- Developing industry specialisms, green industries, the foundational economy and supporting services.
- Growing priority areas and investing in housing, infrastructure, local services and public realm
- Developing an intelligent, greener transport system and improving digital connectivity
- Improving skills and supporting lifelong learning and creativity.
- Purposeful, mission-orientated innovation to improve well-being



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 Creative South Yorkshire

SY has outstanding natural, heritage, cultural and artistic assets with significant economic potential. It is a 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. SY also has a thriving cultural scene, as the birthplace for many music bands, the location for world renowned performing arts and a sports scene across football, both codes of rugby, swimming, boxing, athletics, cricket, cycling and outdoor sports.

There is enormous potential within the creative industries in SY, particularly in the growing global demand for creative content and services. Growing SY's potential in creative and commercial activities can forge a distinct identity for the area and help address the uneven distribution of opportunities, skills, finance and knowledge in this sector.

To realise our full potential, we need a transformational programme of investment in our cultural and creative assets.

2.2.1 Why do we need change?

Creativity, culture, art, heritage, and leisure play a fundamental role in the dynamism of every economy, through commercial activities, and improving education and wellbeing across communities.

There are businesses, major assets and events across South Yorkshire which deserve more support and recognition to support economic growth and wellbeing⁶. In particular, the creative industries remain underdeveloped in South Yorkshire⁷ and, if supported and nurtured, could help drive growth and realise untapped potential.

2.2.2 What do we need to do to grow our creative sector?

Many creative sectors which span marketing, broadcasting, programming, design, and more, are success stories nationally. These are high-growth sectors, in recent years seeing GVA growth twice as fast as the UK as a whole. They are a key source of 'disruptive innovation' and are on the whole more productive than the rest of the economy. Realising the opportunities this sector presents can reach all parts of our region, since a flourishing 'cluster' is not limited to the 'creative cities' model.

Whilst they are highly diverse, creative industries share a need for creative talent, which are supplied by knowledge bases developed largely in higher education. R&D-intensive creative businesses in particular, draw on this knowledge.

NESTA research found that Sheffield, for example, has a mixed track record in developing this talent, in terms of knowledge exchange and dedicated research, but with strengths in providing creative qualifications. It is however overall designated a 'high growth' industry, reflected by creative employment in SY growing by 44%⁸ compared to 8%⁹ across all industries between 2009-2019. The region more widely has relatively high activity around specialised design, architecture, advertising, sound recording, and photography, which is a pattern shared throughout comparator regions. The region also has existing highly successful and internationally recognised companies in games, film and music publishing.

As well as building on our creative and cultural assets, SY MCA and LEP will invest in our growing strengths and place-based potential. This will be especially important as we seek to modernise and diversify our vibrant urban centre offer and increase civic pride.



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

Visit Britain 2019

2.2.3 How do we create the transformative change needed?

The creative sector is highly entrepreneurial with typically very small firm sizes, demonstrating both its high growth potential and its diverse, disparate nature. The LEP and MCA's role will be to develop a localised understanding of this unique sector, identifying its assets, and engaging with it to understand where value can be added. Value is created when technical innovation, creativity and business entrepreneurship are deployed together. SY LEP and MCA support would focus on challenges the sector struggles to overcome. For example, it's widely recognised that networks are vital for creative clusters, helping to raise their visibility and attracting investment and collaboration from the further afield. Identifying and exploiting gaps here could unlock further growth.

In addition to nurturing our creative capabilities, the MCA and LEP will work with partners to develop an investment offer which aligns with Mayoral commitments around putting "culture at the heart of South Yorkshire".

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

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

As such, economic growth activities will also be supported by activities in the following areas:

- Boosting Engagement
- Providing Leadership
- Unlock Signature Investments
- Promotion and Branding
- Securing Investment

2.3 Healthy communities

2.3.1 Why do we need change?

There are significant health inequalities within SY and when compared with the UK average. Inequality in health outcomes are strongly related to economic inequalities. Someone in a well-paid and secure job is more likely to have better health outcomes than someone that is unemployed or in a less well paid or secure job.

Covid-19 has shown the intertwined nature of health and the economy. The public health impact of the disease has targeted the most vulnerable and has been particularly strong on deprived areas, Black, Asian and minority ethnic (BAME) people, the disabled and other vulnerable people. The economic impact has also targeted vulnerable people and places, centered upon many of the same population groups and many residents that were already economically disadvantaged.

The impacts of Covid-19 have illustrated that health and the economy are inextricably linked - an enhanced focus on the role of health and wellbeing within the economy can deliver transformative change by improving the health of people whilst also improving productivity.

2.3.2 What do we need change?

Economic growth in SY will not automatically benefit the whole population nor improve the health and wellbeing of everyone. Interventions made should be planned to have positive impacts upon people's lives:

Collaboration: SYMCA will work with stakeholders to influence change. There is a need to collaborate with anchor institutions, our communities, and other partners to understand how change can be driven and delivered.

Unlocking mutual benefits: SYMCA has already worked with health partners on several programmes connected to employment, business growth and health (e.g. the employment-led health trial called Working Win). Undertaking and innovating with further direct (and indirect) positive health impact programmes will help cement collaboration, create the opportunity to unlock good jobs and yield mutual benefits (e.g. reducing health inequalities and improving job outcomes).

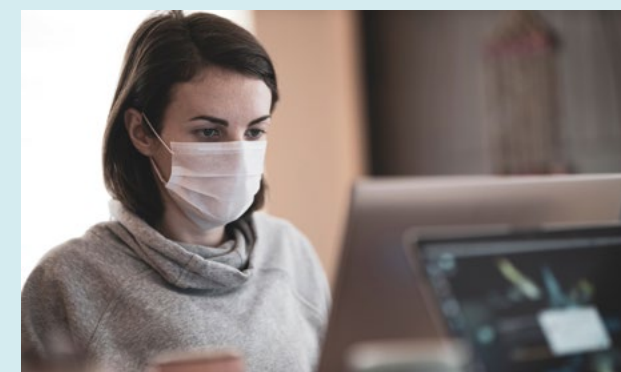
Health Innovation: Healthcare assets within SY are highly important to the strength of our economy and unlock many population-wide benefits.

Good jobs: Employment growth is important in a healthy economy and the provision of 'good jobs' is an important part of this. Encouraging the creation of well-paid, progressive and secure employment is key to SYMCA's aspirations. Good jobs are beneficial to health and all employers have a significant contribution to make.

Measuring impact: The economy is driven by many different factors and understanding how wellbeing impacts our economic fortunes will shape future programmes of work and how we judge success.

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

SY is a growing centre for health innovation, working in partnership with businesses and patients. SYMCA will continue to work with health partners in the private sector and public sector. This includes establishing strong relationships with the Integrated Care service in South Yorkshire.



SYMCA will invest in projects and programmes which deliver positive health outcomes, indirectly or directly through a focus upon inclusion, good jobs and innovation. We will create new jobs related to, or in, the new healthcare economy. A growing economy has more opportunities to unlock positive health outcomes but investing smartly will help the positive impacts spread more equitably.

SYMCA will encourage all local employers to recognise their role in offering providing good work and ensuring that the most disadvantaged in our society are not left behind in their ambitions and progression.

SYMCA will invest in healthcare innovation infrastructure, companies and skills assets in line with the aspirations set out in this document. This includes planned developments in emerging healthcare clusters and new capital infrastructure. We will continue to invest in the business support and networks needed to support the healthcare sector;

SYMCA commits to assessing the impact of the SEP against a set of wellbeing measures. Chapter 9 of this Plan begins to set this out and will continue to evolve by working with a range of organisations (e.g. AWRC, public health professionals, Yorkshire Academic Health Science Network, etc).

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. SY 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 region must triple investment from £323 million to £1.1billion 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 South Yorkshire 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.

SYMCA'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 SY:

- 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, SYMCA is recognising its leading role in encouraging and promoting modernisation of businesses and communities.

The SY 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 SYMCA will be ready to support businesses to address.

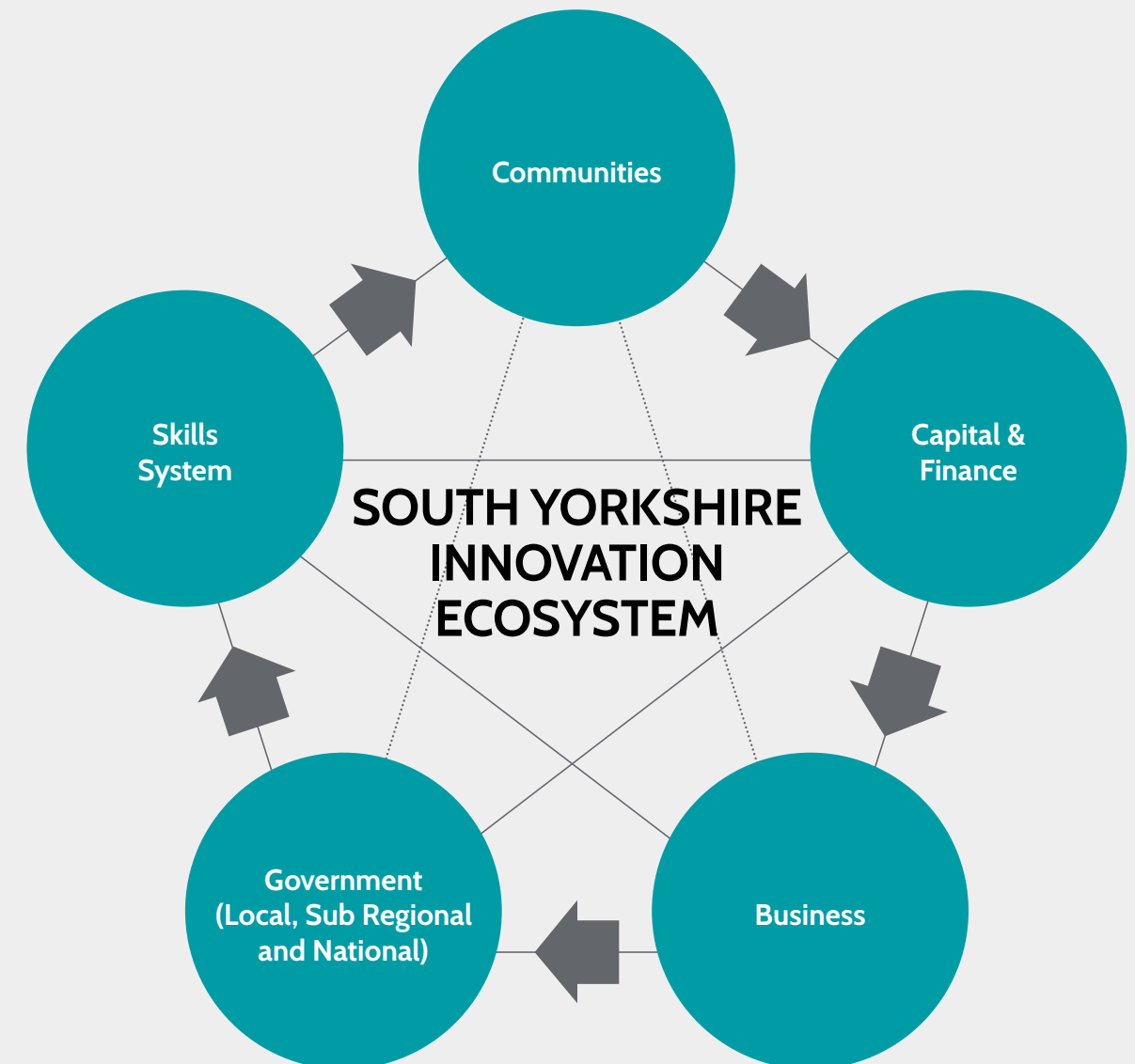
- Anchoring investment in the region – To support the innovation focus. By driving change at each stage of business maturity, we will address and overcome flawed expectations that investment will trickle down by default, from major businesses to the whole supply chain. We will support access to investment and finance for companies as well as Coops and social enterprises. In the medium to long term, we may seek to establish a regional development bank or similar structure.
- 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. SYMCA 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.

SY'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 SY 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.



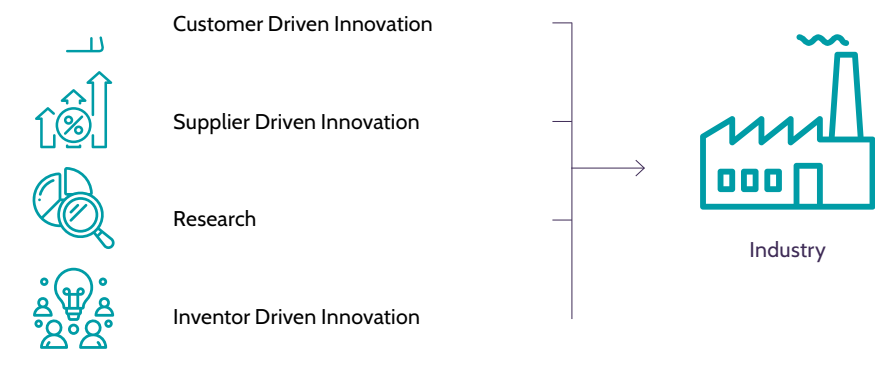
2. Unconventional Innovation

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.



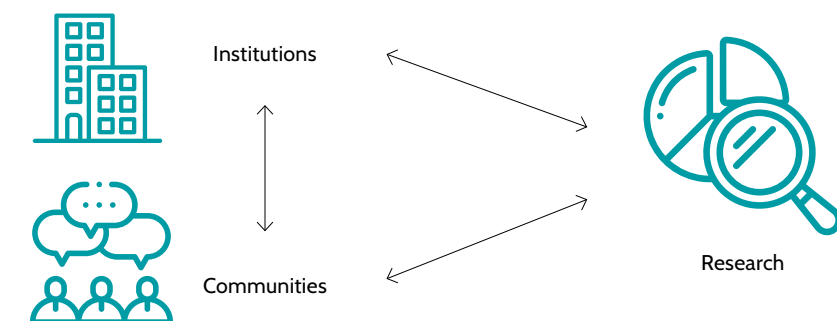
3. Mixed Industry Innovation

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.



3.3 Building on our capabilities

The region has a well-established but relatively small innovation network that contains world-class capabilities (such as our Universities and research flagship institutes), 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 technology 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). The region is also home to the Institute for Energy. Since the early 2000s the AMP has helped change perceptions of SY'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 SY (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, SY 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 flagship research Institutes for Neuroscience and Healthy Lifespan, we are a region that can help tackle global health challenges. The health sector has over 4,000 employers in SY and has established a reputation for excellence in the development of innovative healthcare technologies. The 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 region also has several large teaching hospitals, is the location for world leading clinical research and biomedical devices, and has several firms involved in diagnostic and interventional innovations (everything from surgical to artificial intelligence).

The National Centre for Sport & Exercise Medicine is a globally leading transformation programme colocating 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. Future developments including the Gene Therapy Innovation & Manufacturing Centre provide further opportunities.

Digital

Digital technology is changing how education, engineering, and manufacturing operates. The region has a lot to offer entrepreneurs, from Sheffield's Digital Coalition, dotSHF and Sheffield Digital, 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 400 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 Floom, 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

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 SY, 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.

There are other emerging clusters in SY, 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 technology 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 technology expertise.

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

- Town centre;
- Unity; and,
- Doncaster Sheffield Airport (DSA).

Sheffield City Centre is already a major professional services hub and employment centre, and there is an opportunity to further strengthen the city's digital technology and creative businesses and clusters, and to support the scale up of digital businesses, particularly around the Castlegate area of the city centre (where Kollider is established). This would build on the city's technology clusters including edtech, mobility and entertainment, and complementarities to the Digital Campus in Barnsley.

There is further potential to establish other innovation assets and nodes across the 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

SYMCA 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 and organisations in key sectors (e.g. CCGs) and finance organisations to 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 invest in digital technologies and 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

SYMCA intends to build on established supply chains and create new global value-chains. We will build strategic relationships with targeted businesses and anchor institutions. We will also build the capability of local businesses, to enable them to participate in supply chains beyond our 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 SY, we will support value- adding activities, utilise digital technology applications 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 SY globally, to attract inward investment⁹. SYMCA will also build new and expand on existing global linkages to showcase our assets and capabilities and unlock economic opportunities.

⁸ Such as working with the Massachusetts Institute of Technology's UK REAP project
⁹ Such as through AMID's membership of the Global Institute on Innovation Districts

3.3.4 Ensuring our innovation approach benefits the whole 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 decisionmakers within the ecosystem are also diverse. Furthermore, we can unlock multiple benefits by considering innovation as a wider approach which encompasses natural-based solutions, cooperatives, community groups and community decision making.

Secondly, when making investments, we will establish an upfront social contract based on our terms of business and a social value policy and action plan 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. We will promote cooperatives and other social enterprises to ensure that benefits are more directly linked to SY residents. Also, our approach will embrace university originated innovation as well as wider and informal sources. We will work across the economy, including cooperatives, foundational industries as well as highend 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 and environmental 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 a social value policy and action plan.
- Bring together different communities to innovate by connecting small and large businesses and creating linkages across industrial sectors where risks are shared to enhance competitive advantage.
- Enhancing innovation led community wealth building through the support and advocacy of cooperatives and other community ownership models.
- Focus on 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 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?

The region's skills, education and employment system is not optimized. SY 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. SY lags 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, or to support older workers in our labour market. At the higher level, our leadership and management skills are not universally strong.

- Apprenticeship growth is largely in low pay sectors – Whilst SY 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 SY 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 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 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 SY 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 SY 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 SY over the last decade. The prospects for a low qualification, low wage economy are concerning and urgent intervention and improvement is needed.



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

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

¹² ONS Annual Population Survey 2019

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

¹⁴ There 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.

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

¹⁶ ONS: automation jobs index – 2019

4.2 The assets on which we must build

Despite severe challenges, the 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.

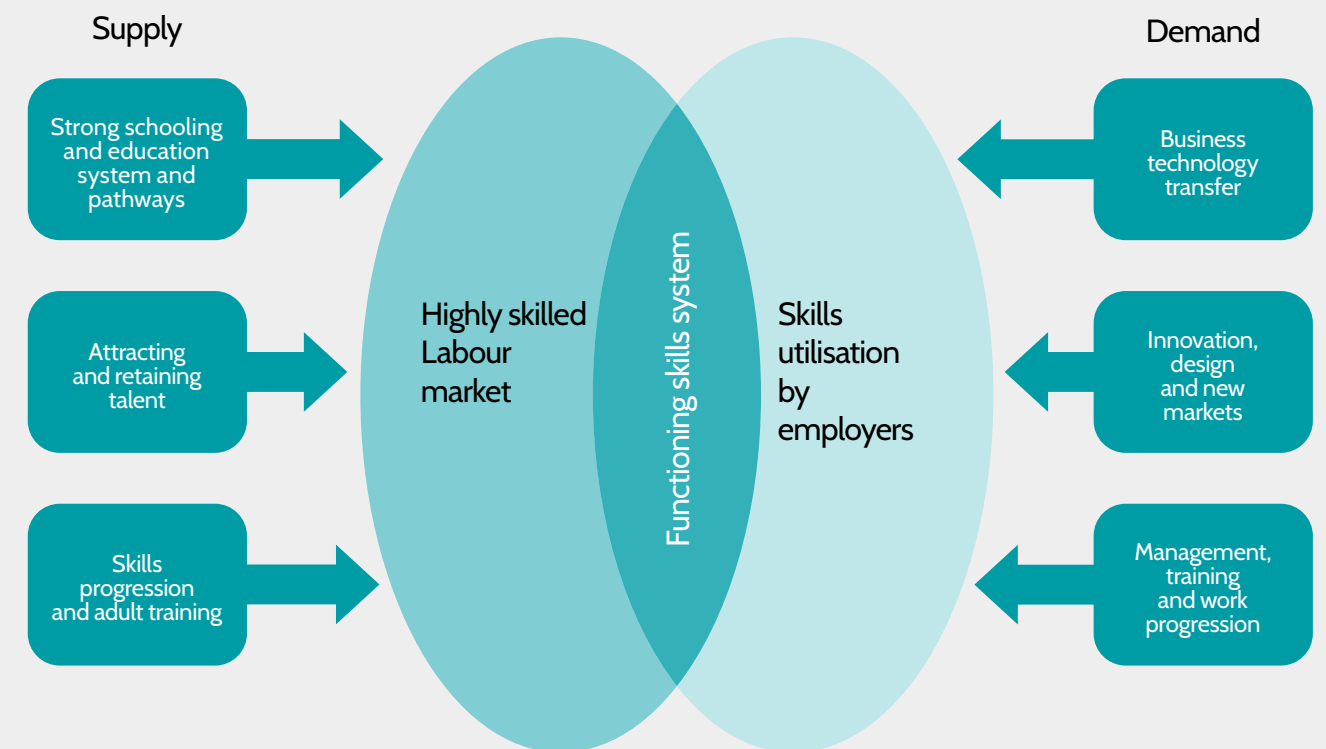
- SY has two world-class Universities:
 - o Sheffield Hallam - the 10th largest university in the UK with a range of research centres, institutes, and award-winning teaching provision.
 - o The University of Sheffield - a world top-100 and Russell Group university renowned for the excellence, impact, 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.
- SY 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 SY 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.
- SY'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 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, and linking skills provision to employment creation (for example training people to carry out housing retrofits).
- Developing a new approach to lifelong learning to ensure our learners can continue to respond to the changing needs of the economy;
- Develop programmes that provide a clear pathway for those out of work to get into, stay and then progress in work. Where possible linking to economic opportunities (e.g. growth in green economy).
- 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.
- Link to employer groups to help shape LMI and improve careers advice reach and quality.
- 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 SY business base to invest in the development of technical skills across SY.
- 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 and retain talented people.
- 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 SY 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

SY has adopted challenging targets to achieving a net-zero carbon economy by 2041, 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 SY'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, addressing the climate emergency 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 SY'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^d of the 50,000 new jobs in the energy sector in the next 15 years are expected to be in SY.
- There is a lack of electric vehicle charging and hydrogen refueling stations. Yorkshire and Humber has only 5^d of the UK's electric vehicle (EV) charging points and only one hydrogen refueling point.
- Only 20^d of electricity consumed in SY is generated in the 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 SY 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.
- SY has 28 Air Quality Management Areas. Carbon emissions from vehicles and public transport are a significant contributor to localised air pollution.



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

¹⁸ Forthcoming SY 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 South Yorkshire'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 SY 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 SY.

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 SY 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 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 SY to invest in a 'smart grid'.

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



The key opportunities that exist in SY, 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, SY is in a strong position to commercialise nuclear fusion as a major source of low-carbon electricity in the years ahead. In SY, 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 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

Legend

- ▲ Abandoned Coal Mine
- South Yorkshire

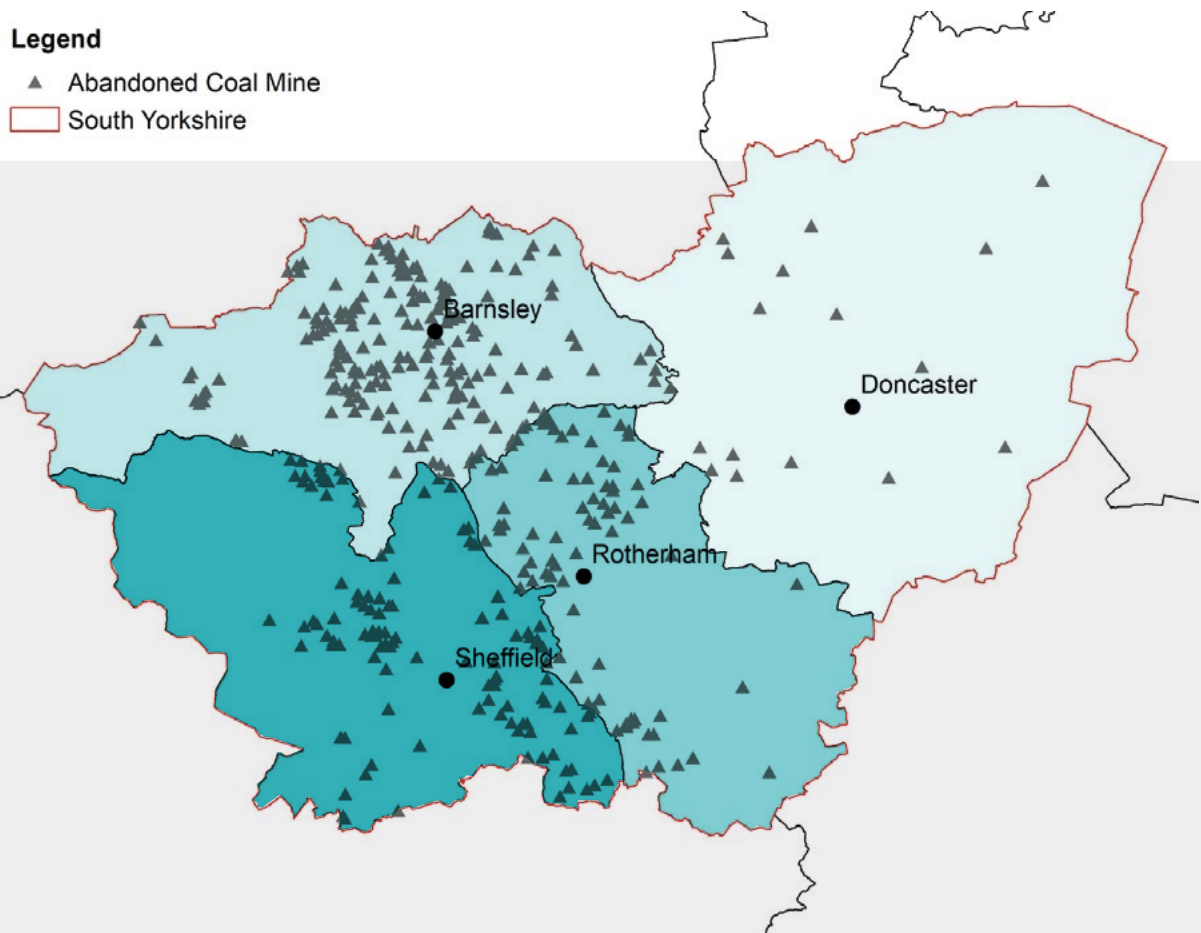


Figure 3: Map of mines in South Yorkshire

Heat Networks – SY 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. In addition to the above, more established low carbon energy generation, distribution and storage technologies such as wind or solar offer significant opportunities and developments in these areas should continue to be promoted and invested in.

What is the climate emergency?

The declaration of a 'climate emergency' recognizes that the negative impacts of climate and environmental change are evident in the UK and throughout the world, such as more extreme weather conditions, increasing flooding, loss of habitats and species, and acceleration in the melting of polar ice caps and glaciers. Carbon emissions are proven to be the key cause of these changes and this must be where action at all levels needs to be focused.

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 SY there is a relatively low number of community energy projects per resident compared to the South West or London. Community energy projects can unlock multiple benefits in deprived communities and targeting support work could encourage greater take-up.

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 SY residents commuting to work using their car²⁴, behaviour changes of transport can deliver big gains. The SY Energy and Transport strategies set an ambition to deliver an innovative, zero-emission public transport network and kickstart further ambitious active travel interventions.

Where active travel or public transport are not viable options, there is a need for a coherent region-wide network of transport infrastructure, helping to increase the uptake of electric and other ULEVs. Companies within SY 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.

In line with the national climate target, emissions from aviation (alongside other 'Scope 3' emissions) are not included within SY'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 SY, we will be part of the solution in decarbonising aviation.



²² Forthcoming SY Draft Energy Strategy (2020)
²³ Forthcoming SY Draft Energy Strategy (2020)
²⁴ ONS Travel to Work (2011)



5.3 How do we create the transformative change needed?

Decarbonising SY'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. Expanding the circular economy and value chain opportunities

- 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 and other established renewable capabilities to grow our business base and tackle energy challenges;

- Utilising the region's research strengths (including the Translational Energy Research Centre) to establish SY as an innovation incubator where clean energy ideas can be taken from concept to production and commercialisation;
- Supporting businesses to reduce their environmental impacts, and take advantage of market opportunities in clean and low-carbon energy generation 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 the climate emergency.

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 SY;
- Delivering a zero-carbon public transport network and active travel region;
- Ensuring that new homes built in SY are high-quality in terms of energy use and efficiency.

These will largely be delivered through the implementation of SY'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 circular economy and value chain opportunities (e.g. nuclear SMRs and fusion),
- Grow the green economy especially existing renewables technologies and emerging technologies like 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 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?

SY has a diverse and wellconnected 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 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 region is focused around a relatively small urban area, meaning that some areas are poorly served, particularly in the more rural areas of the 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 region;
- to other areas (e.g. non-constituent areas) and 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 region, while improving access to markets and supply chains for our businesses.

Most SY residents (85.3%) commute within the 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 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. HS2 and NPR have the potential to be a catalyst for regeneration across the region. 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 the need to rapidly reach net-zero carbon emissions.

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.

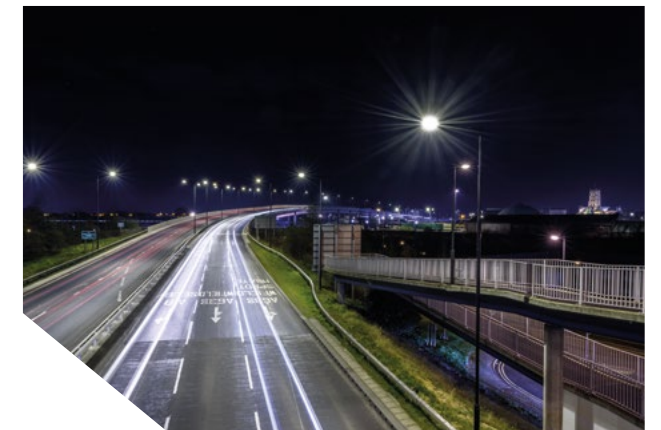
Transport improvements can enhance productivity by making travel to and from work, as well as travel for work, quick and efficient, so that more time can be spent being productive. We know that congestion in our region is already restricting economic growth. For example, analysis shows that travel times 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 applications and services in SY 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 SY 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 applications 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 are worsening the climate emergency. 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 SY 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 SY Transport Strategy. SYMCA 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 SY independent bus review, focusing upon improved performance, principally reliability, frequency, affordability, and connectivity, as well as cutting or eliminating carbon emissions. 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 - SYMCA 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 SY 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 SY'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 2041, 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, affordable 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 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 SY, 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 SY 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 SY 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).

SY 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. SY also needs to rapidly improve its EV charging infrastructure, as outlined in section 5.

SY can maximise opportunities from future transport investment and innovation. SYMCA will support the growth of our transport industry to enter and prosper in global supply chains. SY 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.
- Harness our intelligent mobility capabilities and ambitions.
- Deliver a range of transport packages to connect SY 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. A Digital Revolution

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.

SY 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.

This chapter focusses on how greater adoption of digital technology can help people and organisations throughout the region to prosper. Our approach for how to support growth and innovation the digital and tech sector itself – a key strength within the region – is set out in Chapter 3.

7.1 Why do we need change?

7.1.1 Digital technology does not stand still

The quality and coverage of SY'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. SY is already lagging behind other 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 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 SY before 2025; thereby maximising the economic and inclusive opportunities this would present.

²⁵ HD TVs run at 8mbps; 4k TVs stream at 32mbps each and the next generation of TVs will be even higher – NB definition of Superfast is 24-30mbps (not enough for one 4k TV)
²⁶ Also termed the 'Internet of Things' (IoT)

But it is not just about speed. Our digital capabilities and the successful application of digital technology is equally vital. 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. A society that does not adapt, enable and fully exploit these changes and opportunities will be left behind both economically and socially.

7.1.2 Strengthening South Yorkshire's digital economy

Our region's digital technology industry currently makes a smaller contribution to the economy compared to northern England and the national average.

However, SY has a notable presence in several digital technology sub-sectors including creative, mobility, industrial, data science 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 region have been limited so far. Although there has been recent progress, we want to ensure that we have digital technology 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 technology and creative sector firms scale up.

Economic gains from digital infrastructure

Significant economic gains are possible if we can deploy 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.

The platform for raising digital skills

- Schools - As the national leader, and a globally significant player in EdTech, SY has a good opportunity to enhance digital skills within the future workforce from an early age.
- Universities - SY'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 SY enrol on 'digital-related' education and training courses per year, primarily within SY's Colleges. In addition, the region's UTCs' focus on engineering, digital, and manufacturing.
- Informal Learning - Many of the 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 technology and creative workers are highly skilled, with over 40²⁷ qualified to degree level or higher²⁷. Forecasts also suggest that 10,000 new digital technology and creative

sector employees will be needed by 2024 in SY²⁸, 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 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 SY, 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 SY will be recognised as one of the best connected 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 applications and 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 SY's digital ecosystem by ensuring the supply of 'hard' infrastructure (full fibre and 5G) across the whole of SY, 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 digital skills

We need to increase understanding and take-up of digital technologies across the whole of the region. We will develop, attract, and retain talent, increasing (and enhancing) the

supply of digital skills and ensuring that the digital technology and creative 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 SY'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 and application of digital technology in their business 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 applications and services 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 technology. It also involves developing investor networks and attracting commercial digital accelerators, building on home-grown examples such as those established in Sheffield.

²⁷ SY Digital Action Plan Evidence Base (2018)
²⁸ SY Digital Action Plan Evidence Base (2018)

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 barrierbusting 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 SY 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 services and products;
- Working with partners across SY to improve access to digital infrastructure and services, which is affordable 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 SY and supporting 'SMART cities' interventions.
- Ensuring SY 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 SY. 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.

SY 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, attractive and sustainably developed 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?

SY has over 1,300 ha of employment land ready for commercial and industrial development across the 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. Furthermore, Covid-19 has changed how people interact spatially, and their needs for housing and workspace demonstrate the necessity of more creative and flexible to be considered within existing and new developments.

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 region.

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

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.

In terms of the housing market, there are stark differences across the region. The polarisation is a barrier to inclusion, limiting social mobility and contributing to widening inequalities across the 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 the impacts of the climate emergency 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 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 SY's housing market which can deliver a sustainable housing market:

- 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 and affordable homes 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 technological innovation, we need to encourage investment in affordable housing that utilises cutting edge innovations (e.g. heating). Housing investments will need to complement skills and employment opportunities 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.

8.2.3 Strengthening our urban centres

SY 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, SY 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, improving access to and the resilience of natural space to climate change and other related threats. This will involve making the most of the infrastructural assets already in place as well as adopting different approaches, such as naturebased solutions like natural flood management, and biodiversity net gain.

SY 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.



²⁹ 66% of existing stock is below EPC Rating C.

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

³¹ Non 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 SY, with good access from residential areas, is central to achieving a growing, inclusive, and sustainable 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 SY;
- Ensure that new development is well served by high quality, modern infrastructure, well connected to other parts of the region and resilient to flooding and the impacts of a changing climate;
- Ensure that SY'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 prioritise 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.

B. Planning Strategically - A longterm and more integrated approach for development. SY MCA will lead by:

- Building on the SY 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.



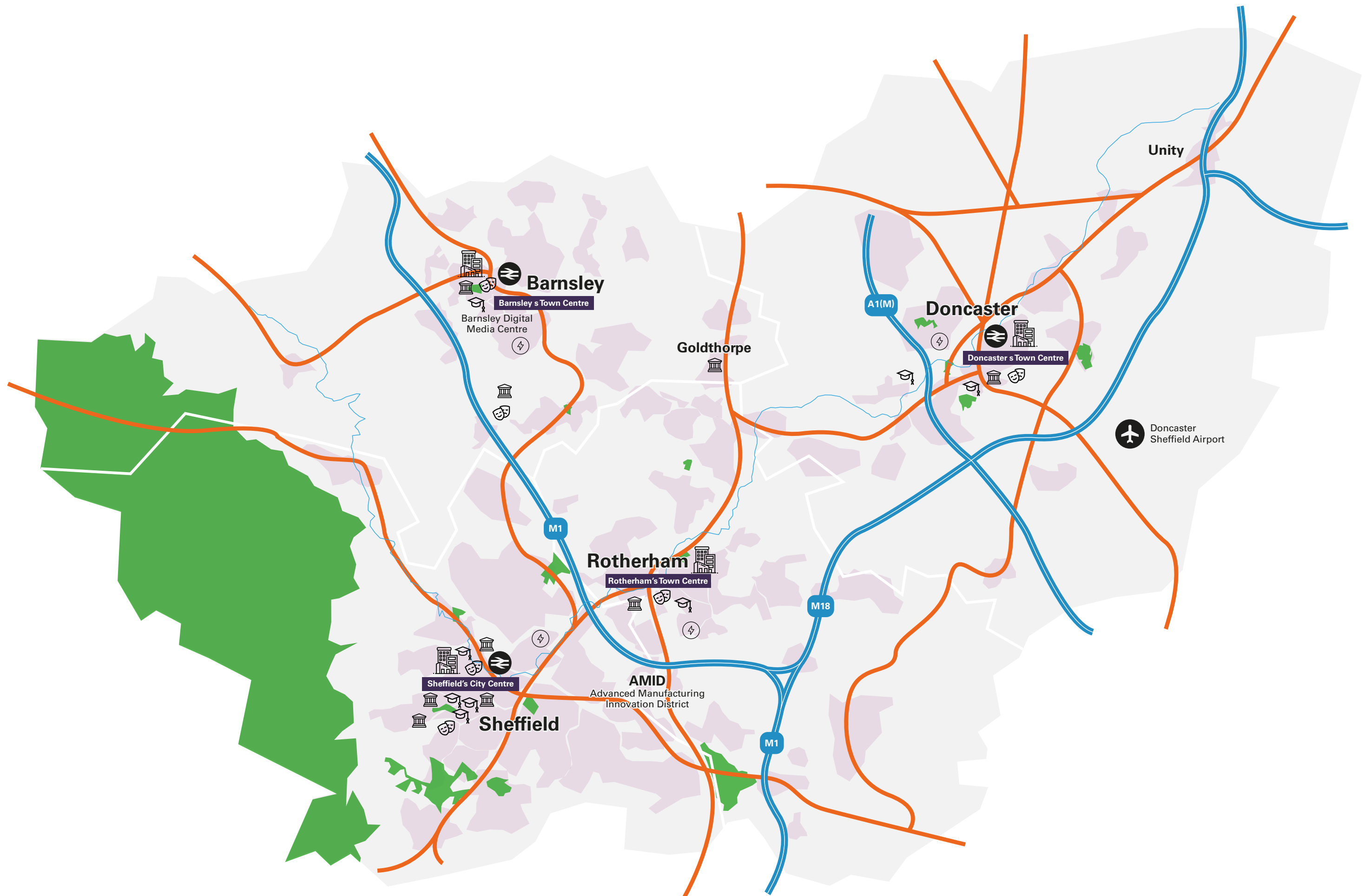
C. Maximise public assets - Utilising public assets and the public estate to drive regeneration, host digital infrastructure, and enable innovative place shaping.

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 region:

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

³² Please see section 3 for more details



9.1 Outcomes, Benefits and Financial Implications



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 SY.

SY MCA's vision – centred on growth, inclusion, and environmental sustainability – is underpinned by our outcomes framework. SY 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. They also reflect a focus upon the systemic nature of economic development and the linkages to health, wellbeing, environment and civic society.

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 SY 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.

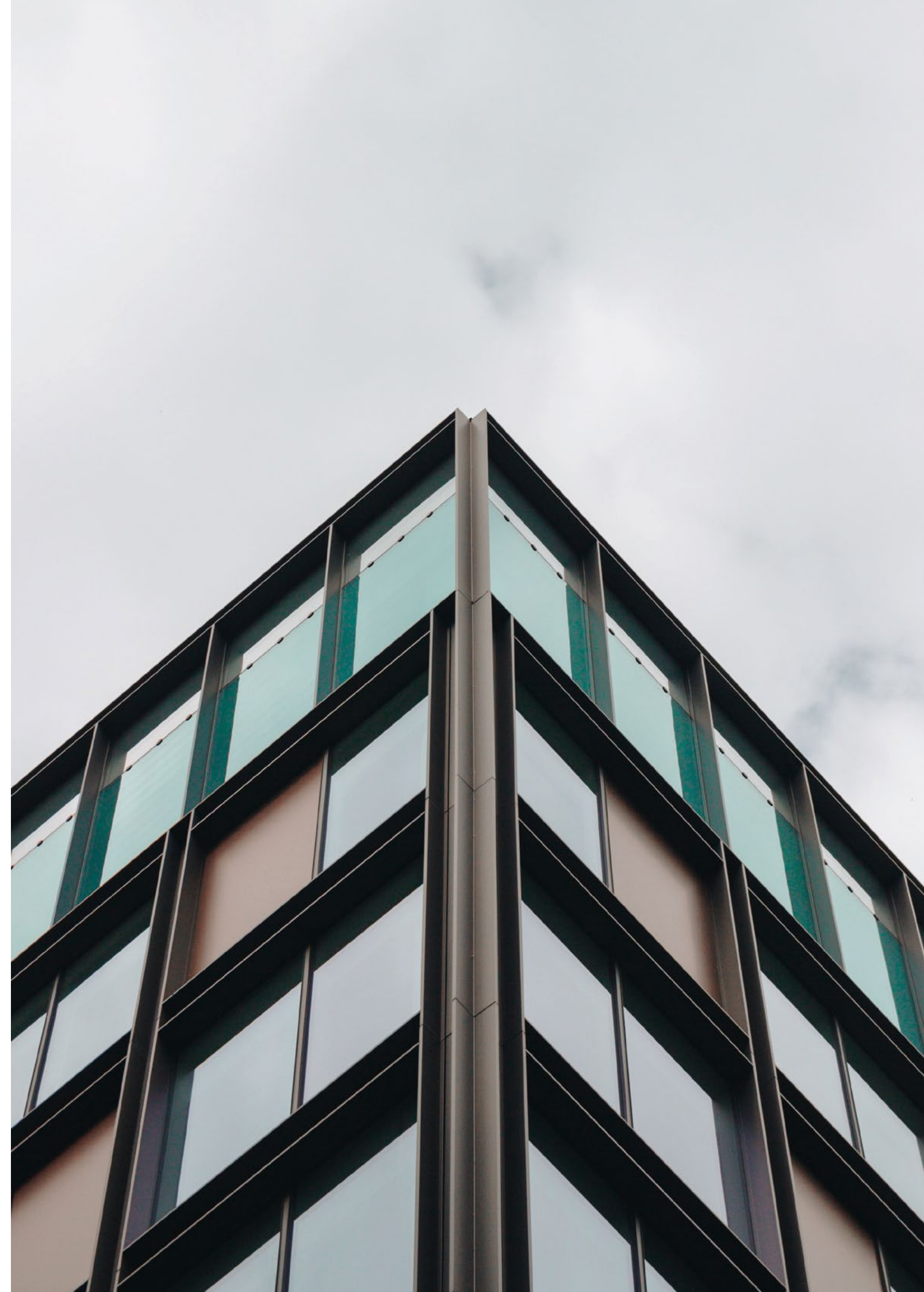


Figure 5: Linking the vision to outcomes to indicators

³³ SY 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 2041:

- 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, in line with the national average (closing the current gap of £1,500 for the lowest paid and £2,800 for the 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 SY. 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 nd of UK average (2017)	100 th 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 th of UK average (2017)	100 th 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. SY approx. 1 st	UK Government target of 2.4 th
Personal Wellbeing	Estimated levels of worthwhile, life satisfaction, happiness and anxiety are indicators of personal well-being.	Individual areas in SY currently lower for anxiety and happiness wellbeing estimates than the national average.	Exceeding national average.
Enterprise	Higher density and growing business base.	Enterprise growth rate is approximately 15-16 th using ONS Business Demography data.	Target birth rate of 16 th .
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 th (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 SY 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. SY – 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. SY – 43.4% UK – 47.0% (2019)	Equal to UK level
Unemployment	More working-age people are in employment.	Annual Population Survey. SY – 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. SY – male 60.2 years, SY – 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. SY – 10.6% England – 10.9% (2017)	Equal to UK level
Cultural participation	Gap for overall participation in cultural activity between SY 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

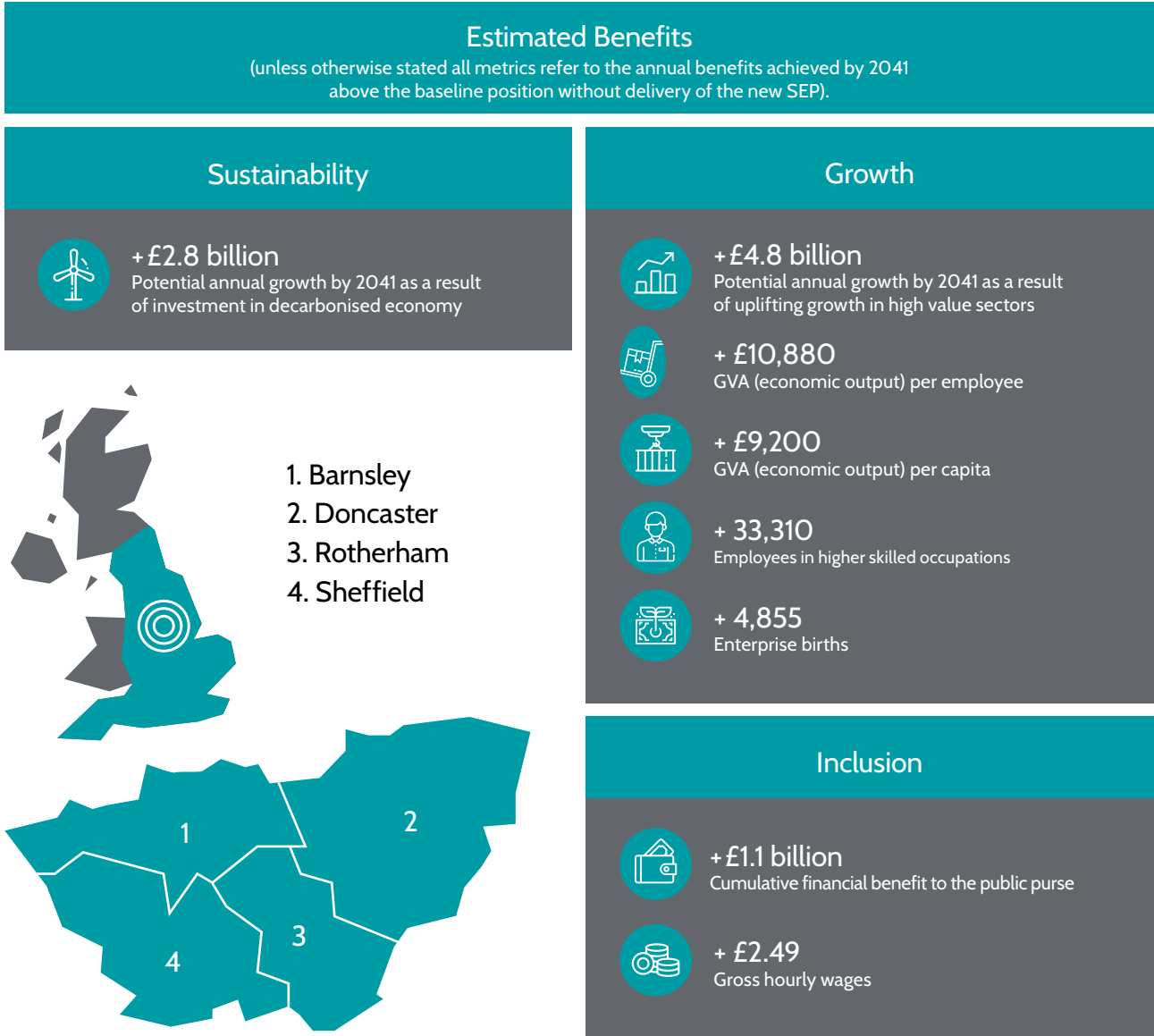
This SEP, when delivered, will make a significant economic contribution to the national economy and financial benefits to the public purse. The actions and ambitions set out in the document will unleash the potential of people, employers and places and accelerate the transformation of South Yorkshire, 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 SY 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

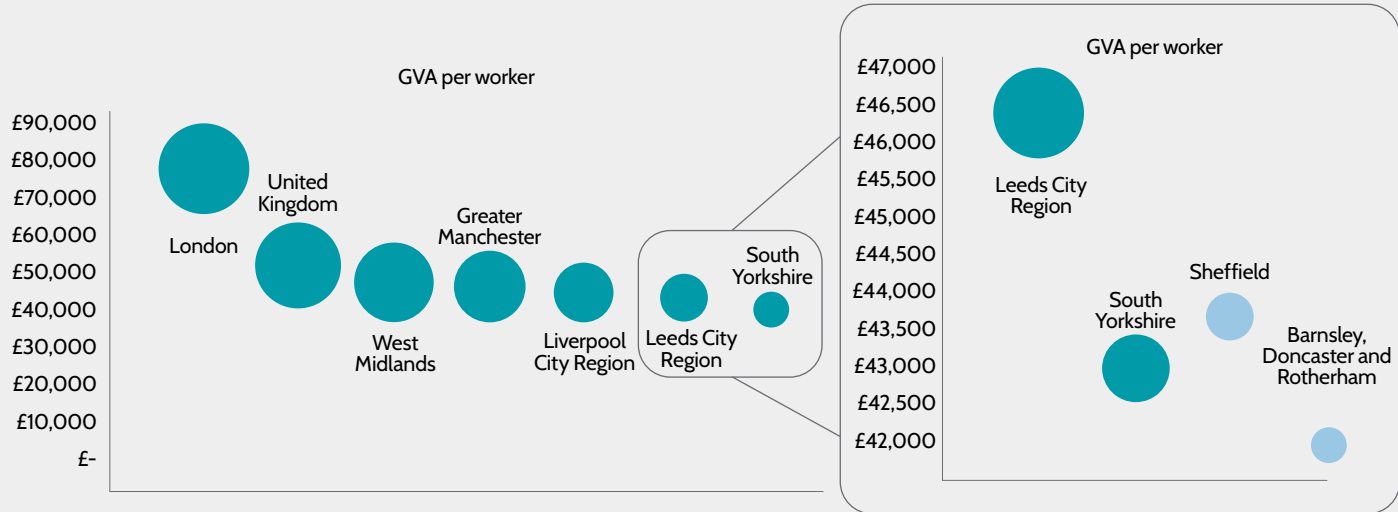


These benefits confirm that investment in South Yorkshire is prudent and sensible and will provide a valuable return on investment for the local and national economy. The LEP and MCA's track record of delivery will ensure that these opportunities are realised in this generation. South Yorkshire has made 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 SY 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, SY still lags the England average for productivity and is ranked 33rd out of 38 LEP areas, which is lower than all other English regions.

Figure 5: Productivity per worker



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.

³⁴ This data refers to SY'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, SY will only comprise the four South Yorkshire authorities of Barnsley, Doncaster, Rotherham and Sheffield – data from ONS.
³⁵ This data refers to SY's current composition (see 36) From April 2020, SY 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 region.
³⁶ ONS 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. SY 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. SY 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, SY saw high and growing employment rates consistently above other similar 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 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 SY, and our digital technology industry 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 infrastructure (e.g. 5g and ultrafast).

³⁷ See Productivity Evidence Synthesis – Productivity Insights Network 2018

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

³⁹ In GVA terms

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

⁴¹ South Yorkshire Economic Evidence Base (2019)

⁴² Inclusive Growth Report – SY. CRESR (2019)

⁴³ South Yorkshire 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 SY MCA for 2041⁴⁴.

What needs improvement?

Productivity growth remains important

SY 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 SY has some of the lowest levels of productivity in England. In SY, 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 SY 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 SY with almost 65%⁴⁴ of that total spent by our two universities. The share of business investment, UK Government and private non-profit expenditure on R&D in SY 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 SY, presenting opportunities for new, wealth-creating products and services, but the evidence shows that not enough companies are taking full advantage of these opportunities. SY 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 - SY’s occupational profile is weighted more towards lower skilled occupations. We have a higher share of low-skilled jobs (36%⁴⁴) and a lower share of managerial and professional jobs (43%⁴⁴) compared to the national average (33%⁴⁴ and 47%⁴⁴). Also compared to the national average, we have a slightly higher proportion of people with no qualifications (8%⁴⁴ compared to 7.8%⁴⁴) and a lower proportion with higher level skills (33%⁴⁴ compared with 39%⁴⁴)⁴⁸.

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 SY’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%⁴⁴ than the England average (25%⁴⁴), indicating serious health inequality⁵¹.

Development and Place - SY 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. SY 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. SY has substantial natural capital, heritage and sporting assets; but despite these advantages, visitor numbers, spend, and participation in culture, arts, and heritage 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 a worsening climate emergency.



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

⁴⁵ For example; Professional, Scientific and Technical Activities make up 5.9%⁴⁴ of jobs compared to 8.7%⁴⁴ in the national economy.

⁴⁶ EMSI sector and employment forecasts to 2040.

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

⁴⁸ ONS - Annual Population Survey 2019

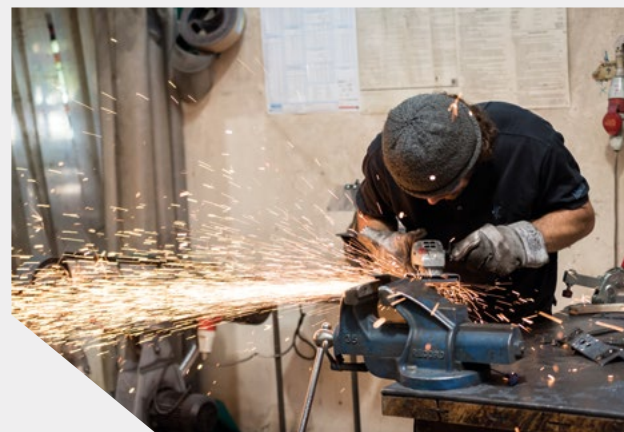
⁴⁹ DfE - Attainment and Progression Data 2019

⁵⁰ ONS - Annual Survey of Hours and Earnings 2019

⁵¹ ONS - 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 region, and a substantially high proportion of journeys made by car, contribute to congestion and poor air quality. Across the four local authorities, SY 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 SY is presently at 3.62⁵², which is half the national average⁵³ 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 - SY 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. 87⁵⁴ of homes in the region have a poor energy rating, with 93,000 households in fuel poverty⁵⁵. However, SY 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.



Market Opportunities for SY

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 SY. Through SY's health strengths, especially the AWRC, we have the potential to lead cutting-edge prevention techniques and support new economic opportunities.



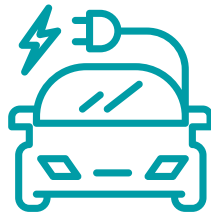
The Climate Emergency and Transition to a Net-Zero Carbon Economy – The national commitment to achieve net-zero carbon emissions by 2050 has been translated to a commitment to achieve the same goal by 2041 for SY. Therefore, our approach to delivering this SEP must enable this transition. Achieving the net-zero goal will require major changes in how we work, live and travel, while also creating economic opportunities for SY. In addition, extreme climate events, such as flooding, will increase in frequency, therefore resilience to these risks must be enhanced for SY'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 application of digital services and products across all industries and aspects of society, as well as the need for much better digital infrastructure. SY has a strong creative and digital technology economy and our capabilities are well aligned to the opportunities (e.g. industrial digitisation) presented by Industry 4.0. SY 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.

⁵² SuperFast South Yorkshire 2019
⁵³ SY Energy Strategy (Forthcoming)

Appendix B – Vibrant and Resilient Places



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 digital and mobile technologies, and our understanding of people and transport movements has increased substantially. Looking to the future, the growth of autonomous vehicles, and digital applications and assistive technologies, could radically change how people travel to work and access education and leisure. SY'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, SY 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 SY and other regions.

Barnsley

Barnsley's vision is to "build a sustainable inclusive economy which benefits all its communities". This aligns with SY 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 2041. The strategy (called Zero40) will be delivered through four five-year action plans from 2021 to 2041 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. SY 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 SY. Barnsley is looking at the next stage of rethinking high streets and place shaping in the town. SY 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.

SY 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. SY 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.

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

3. Improved and Greener Transport Connectivity

SY MCA will work with Barnsley, TfN and other 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.

SY 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. SY 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. SY MCA will work with Barnsley stakeholders to support adults into employment and encourage in-work

progression. SY 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. Addressing Health Inequality and Deprivation

SY 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 SY MCA. Similarly, Barnsley's Town Spirit brand and #lovewhereyoulive has gained traction with local communities and led to a surge in local volunteering. SY MCA will work with Barnsley to strengthen approaches around an inclusive economy, tackling health inequalities and improving the environment in communities.

7. Achieving Net-Zero Commitments

SY MCA is committed to supporting Barnsley in their Zero40 commitments and energising environmental sustainability. Local and regional carbon aspirations will unlock national carbon targets. SY 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. Future proofing the economy through investment in 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 core and wider business base, digital 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. A growing and more diverse economy contributed to an increase in GVA of £1.4bn (31.8%) and 10,000 extra jobs between 2013 and 2018, creating an economy worth almost £5.9bn. Record levels of employment and house building have enabled more residents to benefit from this success.

The quality of Doncaster as a place to live, work and do business is further enhanced by outstanding national connectivity, new leisure developments and environmental assets.

‘Doncaster is responding to the climate change and biodiversity emergency by re-imagining the borough of the future.’

At the same time, Doncaster is tackling long-standing challenges, many of which have been exacerbated by the Covid-19 pandemic. Therefore, in addition to creating new jobs at scale, the focus remains on improving the quality, flexibility and fairness of the jobs available alongside developing an education and skills system that meets the needs of the economy and learners.

Doncaster is responding to the climate change and biodiversity emergency by re-imagining the borough of the future. Doncaster’s geographical scale and dispersed settlement pattern also requires improved transport and digital connectivity and supports a thriving, networked city.



Economic Role

As a rapidly expanding economic centre, and home to key industries and economic assets, Doncaster is vital to the success of South Yorkshire and the wider UK economy.

The scale of opportunity is significant, given Doncaster's established industry specialisms in advanced engineering and technology (including rail), intelligent mobility (including logistics) and the opportunity to create new specialisms in creative, digital and advanced materials.

Partnership Working – Our Shared Priorities

Doncaster's goal is to improve the prosperity and well-being of people and places through an inclusive, greener, stronger and more productive economy.

1. Developing a more regenerative place with a circular, decarbonised economy

This will simultaneously address the climate and biodiversity emergency whilst providing new economic and social opportunities. Doncaster aims to push beyond sustainability ("doing no harm") to regenerative development which renews and improves. This requires a 'whole catchment' approach with collaborative working across Doncaster, the SY and beyond, given how natural systems, resources, institutions, challenges and opportunities cross boundaries. To achieve this Doncaster will seek to:

- Change the linear 'take-make-dispose' economic model to a circular system.
- Regenerate, restore and protect natural capital, working with partners to maximize its contribution to the local economy and inward investment, quality of place and well-being.
- Create social value and build community wealth by increasing the impact of local investment on economic, social and environmental well-being (including circulating more of the 'Doncaster pound' around the local economy).
- Develop, where beneficial, shorter, more resilient supply chains.

Doncaster will contribute significantly to the decarbonisation of the SY's economy, for example through the development of an intelligent, greener transport system, the retro-fitting of homes and supporting businesses to decarbonize.

The SY MCA will also work with Doncaster to ensure there is a more regenerative approach to investment when developing plans for improving land use, green spaces transport and the built environment.

2. Developing industry specialisms as well as green industries, the foundational economy and supporting services.

Doncaster's existing industry strengths and opportunities will support future economic growth, create quality jobs, increase productivity and help to achieve greater economic resilience. Key industry specialisms Doncaster will support and develop are:

- Intelligent Mobility
- Engineering and Technology
- Creative and Digital Industries
- Advanced Materials

Doncaster and the MCA will work to drive decarbonisation and a more circular economy. In addition, Doncaster will support growth in:

- Green Industries – exploiting the opportunities created by new innovations and technologies
- The Foundational Economy – particularly health, medical and social care.
- Supporting Services - comprising a range of professional and business services sectors.

3. Growing priority areas and investing in housing, infrastructure, local services and public realm

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 priority industries and provide a focus for economic development support. They are:

- Doncaster Town Centre – including the major Waterfront urban centre extension.
- Doncaster Sheffield Airport (DSA) Gateway East development – to deliver jobs and housing at scale and maximize the impact of GatewayEast as an innovation-led growth cluster
- Unity - one of the largest regeneration and infrastructure projects of its kind in the UK will deliver a mixed-use development of regional importance.

These developments will impact on the wider Borough (e.g. job opportunities, housing and reputation of Doncaster).

A flexible approach to investment outside of Doncaster's three priority areas will be taken to reflect the priorities, strengths and distinctiveness of local areas.

The MCA will work with Doncaster to ensure its urban areas are characterised by high quality public realm, green spaces and strong community facilities, including excellent housing, health and education services. The resilience and vitality of Doncaster's villages and rural communities will also be promoted through appropriate development.

4. Developing an intelligent, greener transport system and improving digital connectivity

The MCA will work with Team Doncaster to:

- Connect residents to employment opportunities and key growth sites, supported by efficient public transport and cycling and walking infrastructure.
- Connect Doncaster to regional, national and international markets and supply chains.
- Push for a train station at the DSA.
- Invest in decarbonizing transport infrastructure, vehicles and fuels
- Invest in integrated packages of infrastructure to unlock future economic growth and support local plans and strategies, including new housing provision.
- Further improve Doncaster's digital infrastructure.

5. Improving skills and supporting lifelong learning and creativity

Doncaster will work with a diverse set of partners to create a mixed - or 'hybrid' - education and skills system, with technical and vocational pathways that meet the needs of all residents, support a modern economy and widen access to high-quality employment.

Based on collaboration with the SY MCA and a number of local Further Education, Higher Education Institutions and specialist colleges for vocational skills pathways, we will develop Centres of Excellence that link directly to Doncaster's economic strengths, opportunities and challenges. Alongside this, Doncaster and the MCA will work to:

- Ensure all children have the best start to learning
- Accelerate educational achievement
- Extend opportunities to all
- Improve access to arts, culture and creative opportunities

6. Purposeful, mission-orientated innovation to improve well-being.

To support the delivery of its priorities, Doncaster will take a mission-orientated approach to innovation that is focused on the big societal challenges and also supports businesses to grow and become more productive and resilient. Doncaster's approach will be, inclusive, whole system, asset based, intelligence led and guided by the 'Three Horizons' approach.

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 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 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 SY and UK supply chains. SY MCA will support Rotherham in delivering the following key priorities:

1. High Quality housing and regeneration

SY 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

SY MCA will work with Rotherham to establish the area as the centre of the new manufacturing economy in the North of England. SY MCA will work with Rotherham to power an innovation-led manufacturing network across SY and be the industrial centre of the new manufacturing economy. SY 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.

SY 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.

SY 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.

SY 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. SY 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. SY 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.

SY 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.

SY 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. SY 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, SY and Rotherham will seek investment and action on Flood Alleviation Schemes.

Following Rotherham's commitment to a climate emergency, SY MCA will work with the Council on delivering its commitment and action plan. This will also align with SY'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, SY 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.

SY 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

SY MCA will help to champion social value and inclusive growth activities across South Yorkshire. SY 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 South Yorkshire Sheffield is a major employment centre for the SY economy, particularly for higher skilled jobs. Sheffield has a concentration of knowledge intensive businesses, especially in advanced manufacturing, creative and digital technology industries, healthcare technologies and business, professional and financial services. It also acts as a major transport hub for the region.

Partnership Working – Our Shared Priorities

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

1. Creating an Inclusive Wellbeing Economy

SY 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 region.

2. Increasing ‘good’ jobs and boosting business growth

SY 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 SY.

3. Supporting the growth of productive and competitive businesses

Wages and business density in Sheffield compare unfavorably 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. SY 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.

SY MCA will support Sheffield in utilising the universities’ research expertise, business potential and community energy to transition to a sustainable and low-carbon economy. SY 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. SY 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. SY 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 – SY 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, SY MCA will work collaboratively on the magnet city principles (including assets strategy, the Outdoor City brand and physical renewal), to create a highperforming, 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. SY MCA will work with Sheffield to make sure that everyone across the 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. SY 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. SY 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. At the same time, there are areas that need more affordable housing. Improving housing stock quality and retrofitting are priorities across the whole city. SY 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 the climate emergency as it changes and grows. Sustainability will cut across everything that SY MCA and all local authorities do. SY MCA will work with Sheffield on the many challenges the city faces relating to the climate emergency such as energy resilience, flooding and transport.





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

South Yorkshire Mayoral Combined Authority

11 Broad Street West
Sheffield
South Yorkshire
S1 2BQ
0114 220 3400
Economy@southyorkshire-ca.gov.uk
Contact us on MS Teams

Publication date: January 2021

