

VISION 2030

THE SPARK IN THE UK'S GROWTH ENGINE

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University of Nottingham's £24million Advanced Manufacturing Building (officially opened December 2018) received £5m from D2N2's Local Growth Fund allocation. It provides training and research in advanced manufacturing techniques.

Foreword

Our vision is that, by 2030, D2N2 will have a transformed high-value economy; which is prosperous, healthy and inclusive, and one of the most productive in Europe. This Strategic Economic Plan is for every business, place and person in D2N2. It is an ambitious plan. We will be the spark in the engine that powers UK growth.

Our recent progress in creating new private sector jobs has been excellent but we must tackle our productivity gap, if we're to remain a competitive business location and deliver long term prosperity. We still produce too little output for the number of hours worked, and have too many people in lower paid jobs and too few in higher paid occupations. There's a significant variation in the economic conditions experienced by communities across our area.

We know that industry, the way we work and our high streets are changing through digitalisation; that society is ageing; and our businesses must adapt to a changing relationship with the European Union.

Regulation, energy pricing and consumer demand drive the need for ever cleaner economic growth. This Plan recognises the above challenges and trends, and plots an ambitious course for our economy over the next 11 years.

Whilst we must raise skills levels to respond to future economic demands, we do have opportunities and strengths that we can build on; including the potentially transformative impact of HS2 High Speed Rail through the D2N2 LEP area.

This is a Plan to drive change. Innovation and inclusive growth are at its heart, cutting across our three themes of:

- supporting productive and growing businesses,
- delivering skills and knowledge for the future,
- enhancing the quality of the places where we live and work.

The Plan does two things. It establishes a framework for identifying what our future investment priorities should be and which will have the greatest positive impact; and outlines eight key actions to drive us, in the short term, towards our vision.

We will:

- build a stronger LEP with an effective Local Industrial Strategy,
- refocus our D2N2 Growth Hub and business support to help firms improve their productivity,
- develop our knowledge and innovation strengths,
- inspire the careers and skills choices of our current and future workforce,
- help people into work,
- help our workforce to adapt to rapid change,
- support businesses to gain the skills needed to drive productivity in a modern economy,
- invest with partners to maximise the benefit of HS2 and seek investment to deliver the infrastructure necessary for world class transport and digital connectivity; unlocking high quality homes and employment sites.

We won't achieve change with a single project or programme, but with concerted action and sustained investment by business and the public sector. This is a new beginning for the D2N2 LEP. There are exciting opportunities ahead as the UK Government looks to strengthen Local Enterprise Partnerships and invest in local economies, through Local Industrial Strategies and the Shared Prosperity Fund. But it is up to us, together, to take advantage of these opportunities.

New money from Government alone will not deliver our vision. I want you to help us deliver this Strategic Economic Plan and its vision for the future of our area. It is only by combining our efforts in a focused way that we will achieve real and lasting change. Join us on the journey to a stronger, more productive and inclusive economy.



Elizabeth Fagan,
Chair,
D2N2

Executive Summary

What is the SEP for?

As a credible, measurable, well-informed and widely supported plan for the economy this Strategy will achieve change in five ways:

1. Direct current and future funding held by or allocated to the LEP.
2. Support and inform competitive bids by the LEP and partners, for funding from national sources.
3. Influence approaches to 'mainstream' activities and spending by partners.
4. Provide confidence to the private sector for long term investment.
5. Provide a framework for the D2N2 Local Indus trial Strategy.

Where are we now?

We are a large and growing LEP economy, at the centre of the UK, with a strong record in private sector job creation. However, we have a productivity challenge. We produce too little output for the numbers of hours worked; and have too many people in lower paid jobs and too few in higher paid occupations.

There will not be a lot of new labour entering the economy between now and 2030, so we must find ways of producing more output with the labour we have. We need to enable workers at all levels to move up into the more productive, better-paid jobs, and raise workforce skills levels to respond to the economy's future needs. There is also a significant variation in economic conditions within the D2N2 LEP area.

We must continuously adapt to and take advantage of economic, social and technological changes and trends. To do this, we have opportunities and strengths to build on; including the transformational potential of HS2 high speed rail.

Where do we want to get to?

Our vision is that, by 2030, D2N2 will have a transformed high-value economy; one which is prosperous, healthy and inclusive, and among the most productive in Europe. The spark in the engine that powers UK growth.

We will:

- Be in the top quarter of productive local economies in Europe,
- Increase the value of our economy to £70billion, with £9bn added by the actions of this Plan,
- Enjoy prosperity levels in the top quarter of all LEP areas,
- Raise real wages and narrow inequality by a rise in median weekly earnings of at least 40% and narrow wage disparities within D2N2,
- Maintain a high and stable employment rate with a workforce of some one million people,
- Reduce the gap in economic activity levels between places in the D2N2 area,
- Eliminate the gap in workforce qualifications between the UK and D2N2

How are we going to get there?

We will invest in schemes and programmes that give the greatest returns, to achieve our transformative vision for the whole area. We'll be rigorous in our performance management to maximise the value of investments.

Our themes of:

- Productive and Growing Businesses,
- Skills & Knowledge for the Future
- Quality of Place

and 12 investment priorities will determine what we will support. Innovation cuts across the three themes as a driver of long term productivity, and inclusive growth is a desired outcome of all actions taken.

In the short term, we will prioritise eight key activities of:

- creating a strong LEP and Local Industrial Strategy,
- refocusing the D2N2 Growth Hub to enhance business productivity,
- driving productivity and growth in our priority sectors,
- delivering careers inspiration for our current and future workforce,
- supporting inclusion and progression in the labour market,
- developing skills and leadership for productivity growth,
- securing investment to deliver world class infrastructure and connectivity,
- maximising the economic benefits of High Speed rail to the D2N2 economy.



Artist's impression, Nottingham College's £58m Nottingham City Hub, being built in Canal Street, in the city centre. Up to half the costs of the skills and education facility, due to open 2020, will be met by D2N2's Local Growth Fund allocation.

Introduction

This Plan is the economic blueprint for the D2N2 area until 2030, forming the basis for future investment decisions by the LEP and its partners. It builds on the strong foundations of our 2013-2023 Strategic Economic Plan and the activities undertaken to deliver it.

This Plan is built on a strong evidence base, including our D2N2 Science and Innovation Audit, and 'Deep Dive' reviews of productivity and inclusive growth. It proposes to transform the economy of Derby, Derbyshire, Nottingham and Nottinghamshire. It sets a long term vision and a plan of action for collective action to achieve that vision.

It is also the strategic foundation for agreeing a Local Industrial Strategy for D2N2, in partnership with Government, to unlock new resources and enable enhanced local delivery.

This Strategic Economic Plan contributes towards the achievement of the national Industrial Strategy, including tackling its four 'Grand Challenges', and delivering the Midlands Engine's Vision for Growth. It sets the framework for local plans.

This Strategic Economic Plan aims to close our persistent productivity gap; to create a stronger foundation for wages, living standards and opportunity through long term action and investment. It will benefit all communities in the D2N2 LEP area, taking a long term innovation-led approach to improving the productivity of our businesses and the prosperity of our places.

It aims to promote economic resilience so our economy can navigate the uncertainties and opportunities arising from the UK's altered relationship with the European Union, and global trading partners.



Building on the legacy of the first Strategic Economic Plan

In 2013, D2N2 published its first Strategic Economic Plan. That Plan's primary target, to support the creation of an additional 55,000 (net) new private sector jobs by 2023, was achieved within 3 years.

A number of important assets have been put in place or are planned as a direct result of the original plan, providing a strong foundation for growth and prosperity in the future.

£257million invested in transport infrastructure and other capital schemes, enhancing our major transport corridors and opening up key sites in our Enterprise Zones in Derby and Nottingham, including Infinity Park (picture below) and MediCity.

Effective use of European funding (£157m committed to September 2018) to kickstart a number of successful programmes and flagship projects; including a range of local funding options for business growth, innovation, low carbon, and employment and skills support for people across D2N2

Capitalising on the once-in-a-generation transformational opportunity offered by HS2 – ensuring benefits are experienced across the D2N2 LEP area.

Fulfilling the potential of our distinctive local economic geographies, connecting opportunity and need.

The D2N2 Growth Hub established as the 'go to' support service for SMEs; having engaged with some 6,800 businesses in its first three years.

Important new facilities in our centres of research and learning, including the Chesterfield Centre for Higher Level Skills.

This new strategy builds on our track record of achievement, to ensure that the D2N2 economy is fit for the challenges of the future.

Our Eight Key Actions

This strategy is not just an identification of the challenges we face and a theory of change, it is a plan of action. There are detailed actions at the end of each thematic section. Further actions will be specified in regularly updated implementation strategies, such as the D2N2 Infrastructure Strategy. However, the eight key actions we will take, with partners, are:

1 STRONGER LEP & EFFECTIVE LOCAL INDUSTRIAL STRATEGY

Review and strengthen the LEP. Develop and deliver a Local Industrial Strategy that capitalises on our key knowledge and industrial assets, to deliver long term productivity growth. We will be active leaders in the Midlands Engine, championing D2N2's contribution and making the strategic case for investment across the wider region.

2 PRODUCTIVITY FOCUS FOR THE GROWTH HUB

Strengthen the D2N2 Growth Hub and the support it offers to deliver productivity growth across sectors; through better access to exporting, finance, digitalisation, innovation, leadership and management support, expanded provision of High Growth business support focused on small but productive businesses, and having a single point where employers can access employment and skills information and support.

3 INNOVATION LED PRODUCTIVITY GROWTH

Collaborate with universities, businesses and sector bodies to develop and implement productivity and growth plans in our science and innovation core sectors, and exploit our advantages in our four enabling competencies.

4 CAREERS INSPIRATION FOR OUR FUTURE WORKFORCE

Inspire young people to make well informed choices about their education, training and careers in the future economy by delivering a programme of careers inspiration which sees all mainstream secondary schools and Further Education (FE) providers in the D2N2 area achieve all eight 'Gatsby Benchmarks'.

5 INCLUSION & PROGRESSION IN THE LABOUR MARKET

Deliver joined-up targeted support to get people who are seeking employment – but who have multiple, complex or deep barriers to getting a job – into sustainable employment. Support individuals' career progression through raising their skills levels, to meet the changing requirements of business.

6 SKILLS AND LEADERSHIP FOR PRODUCTIVITY GROWTH

Support businesses in accessing the skilled people they need to improve their productivity through a stronger D2N2 Growth Hub, enhanced leadership and management skills, the skills to adapt to digitalisation in the workplace, better engagement with the knowledge and assets in our higher and further education institutions, and increased take up of apprenticeships (particularly at higher and graduate levels).

7 WORLD CLASS INFRASTRUCTURE AND CONNECTIVITY

Secure investment to deliver the infrastructure necessary to achieve world class connectivity and the development of high quality sites, premises and homes – creating prosperous places across the D2N2 LEP area.

8 HS2 – CONNECTIVITY, SUPPLY CHAIN, SKILLS AND PEOPLE

Implement the bold yet pragmatic vision for economic growth in the East Midlands: HS2 Growth Strategy, by working with partners on an agreed programme of activity; including enhanced business support, capital investment in infrastructure, and long terms skills and careers action.


Having been born and bred in Derbyshire, Chesterfield was always going to be a base for the business.
Growing up here I have already seen massive transformation,watching Chesterfield go from a sleepy market town to a thriving, up-and-coming rival to larger towns and cities surrounding it.
Steve Perez
Chairman,
Global Brands
Drink Company
CORSO

Casa Hotel

How we will implement the plan

By setting out a credible, measurable, well-informed and widely supported plan for the economy this Strategy will achieve change in five ways. It will:

1. Direct current and future funding that the LEP holds or where there is a LEP area allocation, such as European Structural and Investment Funds and the Shared Prosperity Fund.
2. Secure funding and investment by providing the strategic rationale for competitive bids by the LEP and partners for funding from national sources; such as the Industrial Strategy Challenge Fund, Transforming Cities Fund, Shared Prosperity Fund and other future 'challenge' funds, policy 'pilots' and initiatives.
3. Influence partners' approaches to 'mainstream' activities and spending, by providing a manifesto for aligning objectives and actions to achieve better outcomes.
4. Provide confidence to the private sector for long term investment in the D2N2 economy.
5. Provide a framework for the D2N2 Local Industrial Strategy and other local strategy development.

A Stronger LEP

Delivering this Strategy will not be achieved solely through funding allocated to the LEP. The LEP will need to be not just an allocator of funds but must act to bring together partnerships for collective action and be an independent advocate for investment into the area.

The D2N2 LEP will review its governance, operation and resourcing to ensure it is best placed to oversee the delivery of this Plan. This means that we will be a stronger LEP, with the resources and support to co-ordinate a cohesive programme of investment, by drawing on national, regional and local resources (from the private and public sectors).

We will fully implement the requirements of the Government's Strengthening Local Enterprise Partnerships review.

We will strengthen the business leadership on our Board and work more collaboratively with East Midlands' LEPs, across the wider Midlands Engine and with neighbouring LEPs with whom we have key economic relationships including, the Sheffield City Region LEP through formal collaboration agreements, where necessary. This will enable us to more effectively achieve shared ambitions.

1 **STRONGER LEP & EFFECTIVE LOCAL INDUSTRIAL STRATEGY**

Review and strengthen the LEP. Develop and deliver a Local Industrial Strategy that capitalises on our key knowledge and industrial assets, to deliver long term productivity growth. We will be active leaders in the Midlands Engine, championing D2N2's contribution and making the strategic case for investment across the wider region.

Directing Investment

The LEP will continue to direct resources within its strategic remit to deliver this Strategy; including the remaining Local Growth Fund, European Structural and Investment Funds, Growing Places Fund, and any funds arising from business rates uplift on designated Enterprise Zones.

D2N2 will also use the framework of this Strategic Economic Plan and the D2N2 Local Industrial Strategy to direct the local allocation of the Government's 'Shared Prosperity Fund'; the replacement for European Structural and Investment Funds once they are no-longer available to the UK.

The Strategic Economic Plan provides the framework by which the LEP will prioritise the investments it will make and endorse, and the actions that it will take. In doing so, the LEP will test:

- Do the actions hit our targets and investment priorities?
- Are they value for money?
- How do they combine with other funded or planned actions to maximise impact?
- How far do they maximise the scale of local impact and social value?
- Are they readily deliverable within the required timescale?

Directing Investment

We will invest in the schemes and programmes that give us the greatest returns to achieve our transformative vision for the whole area. We will be rigorous in our appraisal and performance management and consistent with national frameworks to maximise the value of our investments. We will be clear why we are supporting schemes and why not others. We will hold scheme sponsors to account for performance.

We'll invest in the things that we're good at and which set us apart - to build on the competitive advantages that make D2N2 a great place to live, work, study and visit. This means:

- Exploiting D2N2's unique locational advantage at the heart of the nation; with its outstanding natural assets (such as the Peak District National Park and Sherwood Forest), and its location as a bridge between the Midlands Engine and the Northern Powerhouse areas.
- Supporting our cities' role as economic powerhouses and major urban areas.
- Consolidating the contribution our major businesses make to the economy, improving the competitiveness of their supply chains within the D2N2 area.
- Building on our industrial specialisms and linking to Sector Deals and opportunities arising from the Industrial Strategy Grand Challenges (digitalisation, mobility, low carbon and ageing population).
- Gaining advantage from the talent and leading-edge competencies in our world-class universities and other outstanding centres of learning and research, at the core of D2N2's knowledge base.

Working in partnership to deliver the Plan

As detailed previously, this Strategy cannot be delivered by D2N2 alone. Taking advantage of future opportunities will depend on relationships with neighbours, both in the context of new investment (for example, High Speed 2 and Midlands Connect) and development of strengthened supply chains and labour markets.

Midlands Engine:

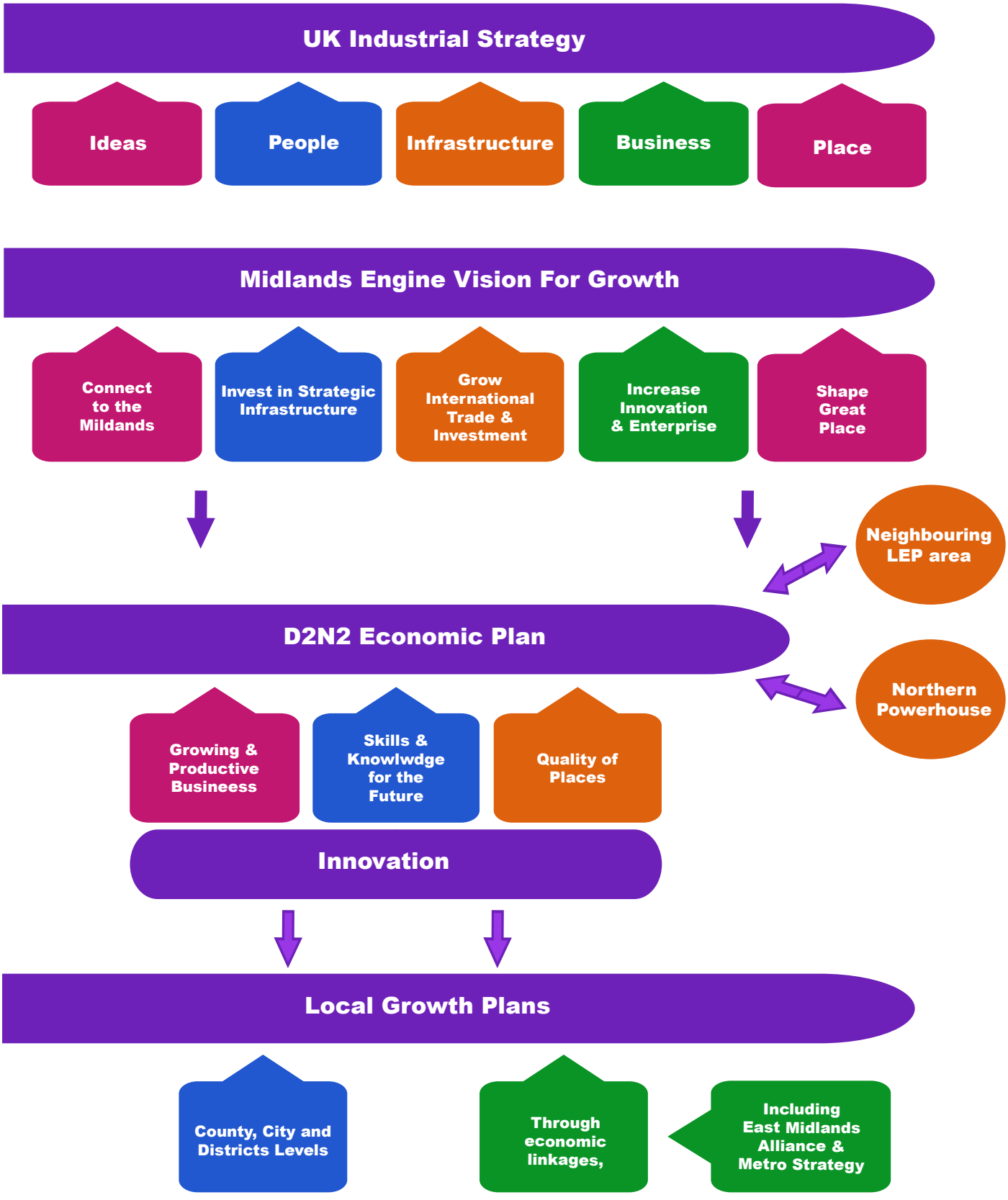
We will be active leaders in the Midlands Engine, championing D2N2's contribution and making the strategic case for investment across the wider region.

The D2N2 Local Enterprise Partnership will continue to work through partnership. The LEP has been a lean, focused partnership which makes best use of partners' expertise and resources; co-ordinating across the D2N2 area and championing shared priorities. We will continue this approach, working with our constituent local authorities and other partnerships in the LEP area. D2N2's Strategic Economic Plan (SEP) provides a bridge between local authorities' plans for local economic growth, and national and regional strategies – see diagram on page 11.

The D2N2 SEP supports the achievement of the Government's Industrial Strategy and the Midlands Engine's Vision for Growth. This SEP provides the framework for and will be delivered through collaborative working, focused interventions, and aligned thematic and geographic plans; according to how we can secure the greatest impact. As such, it provides the vision, targets and overall framework for the development of the D2N2 Local Industrial Strategy and the framework for detailed thematic implementation plans such as the D2N2 Infrastructure Strategy, Energy Strategy, and the People and Skills Plan.

Although the LEP area is large, and to a large degree economically self-contained, there is no 'one size' fits all approach to tackling the challenges we face.

There are significant economic disparities within the D2N2 LEP area and between places within the area. Therefore, the application of SEP policies will need to be sensitive to local differences and synergies, within and outside the D2N2 area. The SEP builds on the D2N2 area's reputation for local collaborative working within multiple, overlapping local economic geographies. Including the Derby-Nottingham Metro Strategy


UK Industrial Strategy
Ideas
People
Infrastructure
Business
Place
Midlands Engine Vision For Growth
Connect to the Mildands
Invest in Strategic Infrastructure
Grow International Trade & Investment
Increase Innovation & Enterprise
Shape Great Place
Neighbouring LEP area
D2N2 Economic Plan
Northern Powerhouse
Growing & Productive Busineess
Skills & Knowlwdge for the Future
Quality of Places
Innovation
Local Growth Plans
County, City and Districts Levels
Through economic linkages,
Including East Midlands Alliance & Metro Strategy



Manufacturing at drill bit specialist Rockpecker Ltd of Nottingham. The company has received D2N2 Growth Hub support.

Derby Nottingham Metro Strategy:

Derby Nottingham Metro Strategy: Driven by a voluntary collaboration, the Derby-Nottingham Metro Strategy is designed to leverage the benefits of enhanced links between the complementary dynamic City economies of Derby and Nottingham.

Healthy and thriving City economies are key to the health of the overall D2N2 economy, with Nottingham and Derby both forecast to experience significant jobs creation and growth in their working age population by 2030.

> "Nottingham has surpassed my expectations. Their specific and on-going support and the willingness to help my company is invaluable. The Growth Hub is a significant and key enabler to help me achieve my business plans both here and overseas."
>
> Rajnish Kuma, Managing Director, Rockpecker Ltd

We will remain an outward looking LEP, collaborating with others to achieve shared objectives.

Securing Investment

The strategy cannot be effectively implemented without investment and we will continue to press the case for a 'fair deal' for D2N2 and the wider East Midlands alongside providing compelling investment propositions to Government, its agencies and other investors.

This Strategy and the forthcoming D2N2 Local Industrial Strategy (LIS) will set the strategic rationale for LEP support for direct submissions to Government, and for working with partners to secure strategic investment into the D2N2 economy; particularly via applications to challenges funds such as the Industrial Strategy Challenge Fund.

A Framework for the Local Industrial Strategy

This Plan is a comprehensive revision of the previous SEP but it is also the first stage in developing a Local Industrial Strategy (LIS) for D2N2. Our aim is to have the LIS in place, in partnership with Government, during 2020.

The LIS will be the basis for agreeing funding and flexibilities from Government, including the new UK Shared Prosperity Fund; due to replace European Structural Funds from 2021, but which might look very different from existing funding arrangements.

It is anticipated that the LIS will focus in more depth on a narrower range of issues, including how the D2N2 LEP area will harness its significant science and innovation assets to address four Grand Challenges identified in the Government's UK Industrial Strategy, i.e:

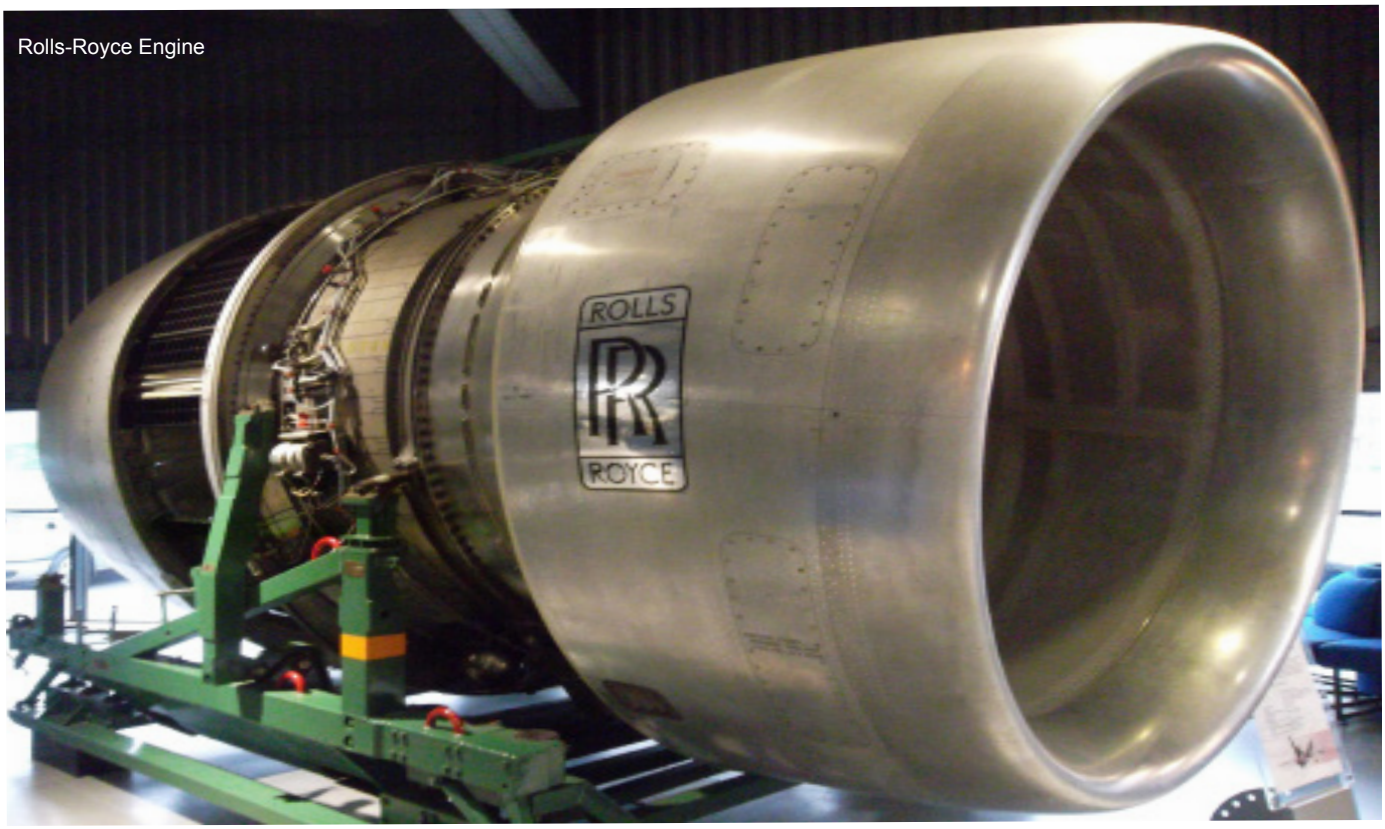
- artificial intelligence and the data economy
- the future of mobility,
- clean growth
- the ageing society.

Monitoring Performance

To track this Strategy's progress in the long term, we've identified a series of headline targets (see Page 19) and a number of supporting indicators to be monitored (see Page 61). For all of these, change will be gradual and all are subject to short-term volatility; with progress more likely to be measured long term, rather than from year to year.

We will, however, continue to prepare a State of the Economy report annually and carry out a full-scale Strategic Review every five years; keeping the strategic priorities (including priority sectors and enabling competencies) under review in the light of significant changes in global, national or local circumstances. We will engage with partners to disseminate the findings of the State of the Economy reports and consider their implications for strategy.


Toyota



Rolls-Royce Engine

D2N2's outstanding economic assets…

Derby, Derbyshire, Nottingham, Nottinghamshire, has been in the vanguard of scientific and industrial innovation for more than 200 years.

From Richard Arkwright's water powered Cotton Mill at Cromford in 1771 to market-leading engines in the present day, the D2N2, has become synonymous with globally-significant technological advances and manufacturing excellence; founded on long-standing trading relationships across the world.

This leaves us with a proud industrial heritage, world-class firms and universities, and a culture of innovation and industry. Our specialist knowhow means we are well positioned to take advantage of advances in digitalisation, mobility, and medical and low carbon technologies.

D2N2 LEP: Key Statistics

AREA: 4,748 sq. km
LEP Ranking 12 out of 38

POPULATION: 2196,100
LEP Ranking 5 out of 38

WORKING AGE POPULATION: 1,358,100
LEP Ranking 5 out of 38

GVA: £45.4bn
LEP Ranking 4 out of 38

EXPORTS (good)
LEP Ranking 4 out of 38

LOCAL AUTHORITIES: 19
LEP Ranking 3 out of 38

ECONOMIC SELF CONTAINMENT
LEP Ranking 5 out of 38

2.2 Million people reside in the D2N2

D2N2, with 2.2 million residents, is one of the most important local economies in England. Only three LEP areas outside London have a larger population – and the amount of GVA output we generate (£45billion) is on a par with Birmingham & Solihull LEP's area.

We are one of the most important LEPs in England for the value of goods that we export. However, despite having the fifth largest working age population of all 38 LEPs, we only have the ninth largest economy; illustrating one of our key economic challenges. We do not use our workforce, our key resource, as efficiently or productively as some other areas.

What Sets Us Apart

D2N2 is a large LEP area, a nationally significant economy in the centre of England with important local, national and international connections.

Our area contains a vibrant blend of cities, towns and rural areas; with an extremely high (89%) 'economic self- containment' rate, i.e: 92% of D2N2 workers live in the D2N2 area and 87% of D2N2 residents work in the D2N2 area.

This makes D2N2 one of the strongest functional economic LEP geographies in England. Only four of the other 38 LEPs have a higher proportion of their workforce living in the area.

Despite being highly self-contained, as a large area we have important economic relationships with our neighbouring LEPs and considerable diversity within our area. D2N2 contains six housing market areas and all or part of ten travel to work areas.

As well as being in a strong location, in the centre of England (as shown in Figure 1), D2N2 has a rich mix of economic assets across its geography.

Our area benefits from an exceptionally strong advanced manufacturing base, a well-developed innovation ecosystem (including world-class capability in our universities); and a vibrant mix of growing cities, and significant and diverse towns and rural areas possessing outstanding natural, cultural and environmental assets. These include the internationally important Peak District National Park, Sherwood Forest, the Trent Valley and the Derwent Valley Mills World Heritage Site. Much of the area is covered by environmental designations, including the Nottingham-Derby Green Belt.

D2N2 has a huge range of cultural assets, many of which are detailed in our 'economic assets' map on Page Ten. These range from world class sporting facilities and venues; to internationally significant industrial and cultural heritage sites, from Derwent Valley Mills to the beginning of the Mayflower trail; to vibrant and contemporary arts and performance venues.

Knowledge, Science and Innovation Assets

Having been in the vanguard of the first Industrial Revolution, D2N2 has the science and innovation assets to enable our economy to benefit significantly from the current technological and digital revolution.

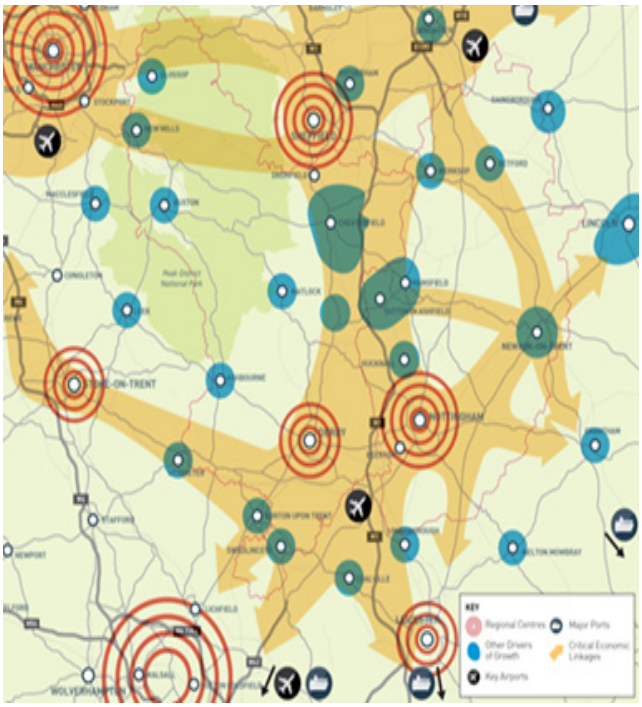
As described in our D2N2 Science and Innovation Audit, we have world class research and innovation assets, and the potential to develop a coherent local science and innovation 'ecosystem' to benefit local firms.

Our three universities (Nottingham, Nottingham Trent and Derby) are key anchor institutions for the development of our economy. The University of Nottingham is of international significance for research, being ranked 13th in the UK for 'research power'; and Nottingham Trent University and the University of Derby are rapidly developmemt research and development institutions.

Our universities have an excellent track record in collaborating and the D2N2 LEP has invested heavily in projects to promote innovation; including Enabling Innovation, the Advanced Manufacturing Building at the University of Nottingham, the Medical Technologies Innovation Facility at Nottingham Trent University and the University of Derby's iHub.

There are a network of innovation centres and knowledge intensive firms throughout the D2N2 LEP area; with three science parks and over ten innovation centres/incubators, all home to numerous innovative and technology-rich SMEs.

Our Key Connections and Corridors



We have a rich mix of world-class advanced manufacturing firms in Derby including Rolls-Royce, Bombardier and Toyota; a growing life sciences cluster in Nottingham anchored by Boots and BioCity; and an emerging digital tech cluster in and around Nottingham's 'Creative Quarter'.

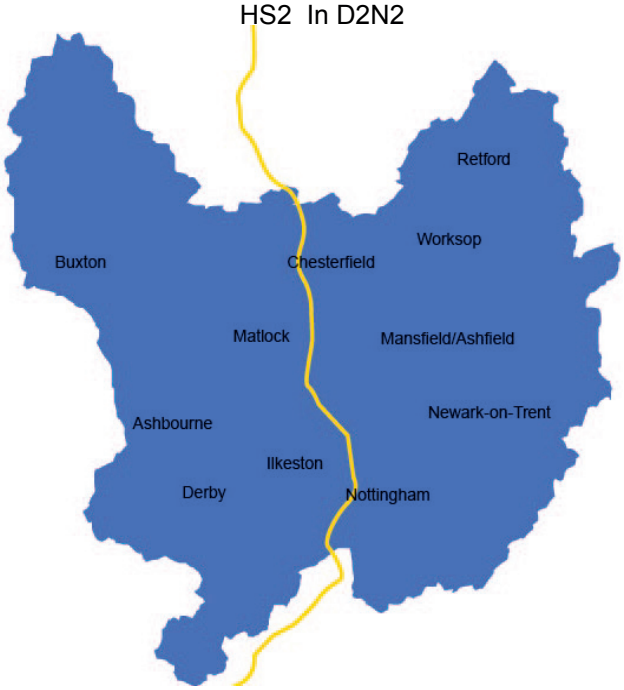
An outward looking economy

HS2 represents a truly transformational opportunity to strengthen connections within our area and between it and external regions.

Via the proposed HS2 Phase 2 line, the D2N2 area would host the East Midlands HS2 Hub Station planned for Toton, a further stop at Chesterfield, and an HS2 infrastructure and maintenance depot at Staveley.

Working collaboratively with other LEPs and partners across the East Midlands, we have developed a shared East Midlands Growth Strategy for HS2, which designates two regional 'HS2 growth zones' within the D2N2 area. Each zone has a collaborative, partnership approach aiming to realise the economic benefits of HS2 for the D2N2 LEP area within a wider approach to maximising connectivity, business and skills benefits.

HS2 In D2N2



Therefore we'll continue to collaborate with our neighbours, formally where necessary, through agreements which tackle cross border issues and relationships effectively. The map above illustrates the key economic relationships and connections within and beyond the area.

A Diverse Geography

D2N2 has a diverse economic geography combining:

- Derby and Nottingham cities, accounting for a significant proportion of the area's employment and GVA; possessing strong and complementary economies, with different strengths and assets.
- Derbyshire and Nottinghamshire counties, where most of the area's workforce resides; including key towns such as Chesterfield and the Ashfield & Mansfield conurbation – recognised by the Centre for Cities as one of 64 'cities' in UK. The counties include a network of major towns comprising Newark, Worksop, Matlock, Buxton and Long Eaton and large rural areas.

This diversity has in the past been a strength, enabling the economy to be resilient in economic downturns, but there are significant economic disparities across the area.

The D2N2 LEP area doesn't breakdown into 'neat' sub-divisions, but rather a series of overlapping local economic geographies sharing some characteristics.

Enhancing engagement between firms and our significant research base will drive innovation, productivity and our long term competitiveness

For example, D2N2 wholly contains six housing market areas, five travel to work areas and parts of five further travel to work areas.

Local economic plans take different approaches; ranging from three 'functional economic zones' in the Derbyshire Economic Strategy Statement, to a blend of growth corridors and opportunity areas in the Nottinghamshire Place Departmental Strategy, to a combined cities approach in the Derby Nottingham Metro-Strategy.

In developing plans and actions to deliver this Strategic Economic Plan, D2N2 will consider how to lever all relevant assets – cultural, economic, knowledge-based, natural and human – to support businesses and people, in every part of the D2N2 LEP area. In developing and applying plans, and taking actions, we'll be mindful of the diversity and inter-connections between our places.

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Collaboration between places:

This plan and its approach to delivery recognises our area's distinct spatial characteristics. D2N2 will only succeed if all places within our area thrive. We will continue to support active collaboration between places and partners, within and beyond our borders, taking advantages of synergies and scale, where this can help achieve our ambitions.

Our cities are important engines of growth:

The two cities of Nottingham and Derby - with Nottingham recognised as among the UK's eight 'Core Cities' - play a vital economic role. They are:

- home to the main campuses of the D2N2 area's three universities,
- employment locations
- regional centres for commercial, cultural and public services.

Combined, Derby and Nottingham account for about 35% of D2N2's GVA. Both cities have housing market and travel-to-work areas which cover much of South Nottinghamshire and Southern Derbyshire (in particular the Broxtowe, Rushcliffe and Erewash districts).

Looking over the next 20 years, the economic 'footprint' of the area in and around the two cities is set to expand considerably. Population growth in D2N2 is forecast to be focused south of the area (with greatest increases in Rushcliffe and South Derbyshire). Forecasts for Derby and Nottingham show working age population growth above England's average.

Both cities have significant economies, focused on different strengths and assets.

Derby's concentration of (highly productive and innovative) advanced manufacturing employment complements Nottingham's service sector economy and growing bioscience, digital and creative i ndustries.

Each city also has its challenges. Nottingham has low GVA per worker, in the bottom ten of the Centre for Cities' productivity index, and Derby has been designated an 'Opportunity Area' due to educational challenges. Derby and Nottingham complement, rather than compete, with each other.

They share infrastructure and both would be supported by the proposed HS2 related development at Toton, as well as other significant opportunities around East Midlands Airport.

However, evidence suggests we're not currently fully exploiting these complementary assets. Functional links, such as commuter flows, between the two cities are limited, and supply chain relationships appear underdeveloped.

Our diverse urban centres and market towns are key to our economy

Almost two-thirds of D2N2's GVA is generated in the counties and districts outside Nottingham and Derby. The Mansfield-Ashfield conurbation is the D2N2 area's third largest urban centre, generating some £4billion in GVA, and has been identified by the Centre for Cities as one of 64 'cities' in the UK.

D2N2's major towns are important economic centres in their own right. Chesterfield, for example, is home to over 30,000 jobs, with an economy generating over £2million GVA per annum and a planned station on the High Speed 2 line.

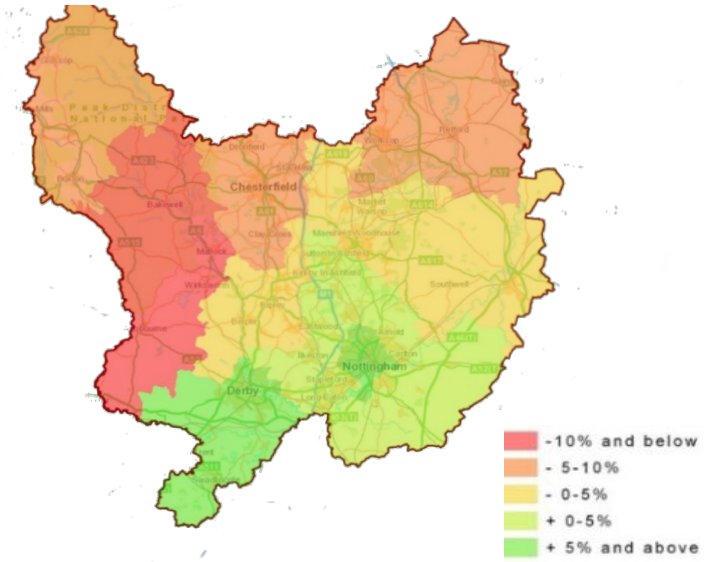
Main employment concentrations are shown in Figure 4, but D2N2's dispersed network of towns means that all parts of the area have a role to play in our economy. District economies vary in size, Figures from 2016 show North-East Derbyshire with a £1.47bn GVA, Amber Valley with £2.64bn , and the city economies of Nottingham and Derby generating £8.91bn and £6.97bn respectively. We also have many market towns playing an important role as service centres for surrounding rural communities.

There's a marked gap between the D2N2 area's most and least prosperous parts; ranging from GVA per head of population of £27,600 in Nottingham, to £27, 300 in Derbyshire Dales, to £14,400 in Gedling and £16,000 in Erewash. Our area's network of market towns face diverse challenges.

The Centre for Cities indicates that more than 30% of current roles in Mansfield and Ashfield area towns are threatened by automation.

The Social Mobility Commission indicates that Newark and Sherwood, Derby, Mansfield, Nottingham, South Derbyshire, Amber Valley, Bolsover, Chesterfield, Broxtowe, Erewash, Gedling and Bassetlaw are social mobility 'cold-spots' (where opportunities for social mobility are limited); with only Rushcliffe Borough (containing West Bridgford, Cotgrave and Bingham) a designated 'hot spot'.
Not only are there significant differences between places in the D2N2 LEP area, but also within those places.

D2N2 working age population forecast % growth (2014- 2030)



The Centre for Cities indicates that more than 30% of current roles in Mansfield and Ashfield area towns are threatened by automation.

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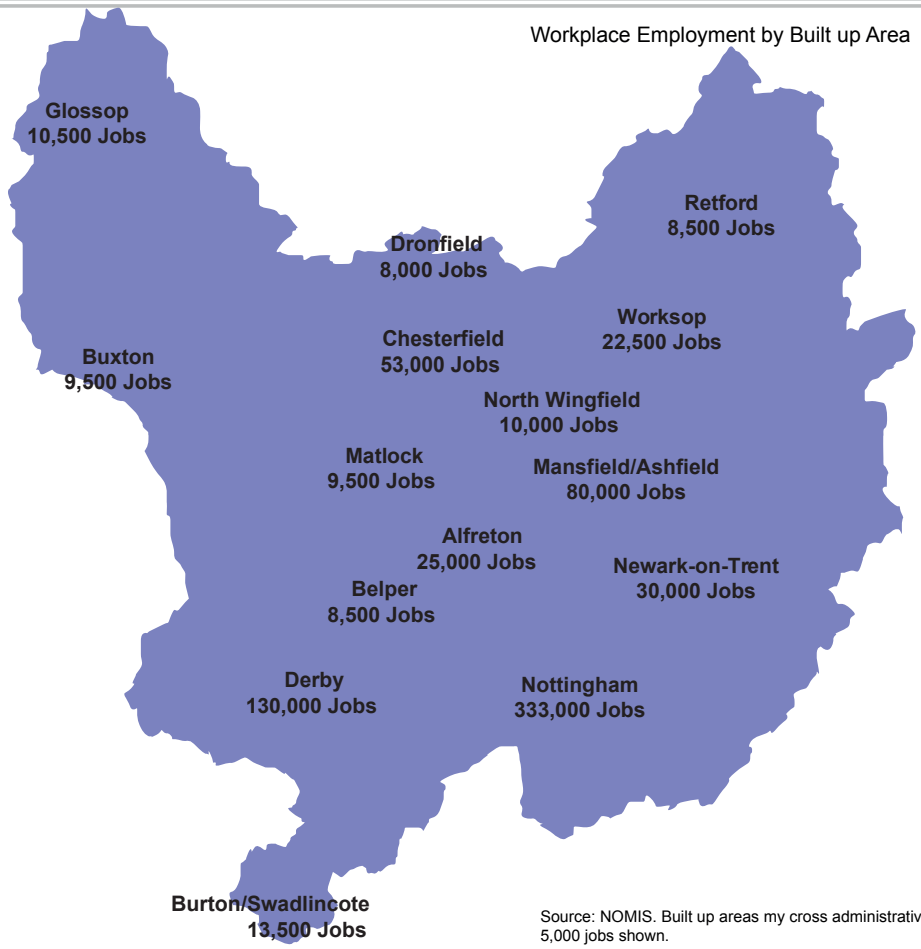
Not only are there significant differences between places in the D2N2 LEP area, but also within those places.

Derby is one of the highest average wage economies in England; with an average gross disposable household income of approximately £500 per week, compared with around £300 per week in Mansfield. At the same time the RSA (Royal Society for the encouragement of Arts,

Manufactures and Commerce) Inclusive Growth Commission estimates that approximately 28% of Derby jobs pay less than the 'living wage'.

Outside of Chesterfield, Derbyshire has a range of towns with different characteristics with Buxton, Bakewell, Ashbourne, Matlock, in the Dales and Peaks; and Alfreton, Ripley, Ilkeston, Bolsover, Codnor and Long Eaton in the east of the County; and part of an 'M1' corridor with towns in Nottinghamshire such as Eastwood, Hucknall and Stapleford.

Workplace Employment by Built up Area



Source: NOMIS. Built up areas my cross administrative bounderies. Only those above 5,000 jobs shown.

Our rural areas

Our diverse rural areas are home to a significant population. The rural economy plays a key role in shaping the physical place where we live, and in supporting the overall health and vitality of our economy. Over a third of D2N2's total employment is in predominantly rural local authority areas.

The rural economy's agricultural sector continues to play a key role in food production, as well as maintaining and enhancing the attractiveness of the environment and contributing to the visitor economy.

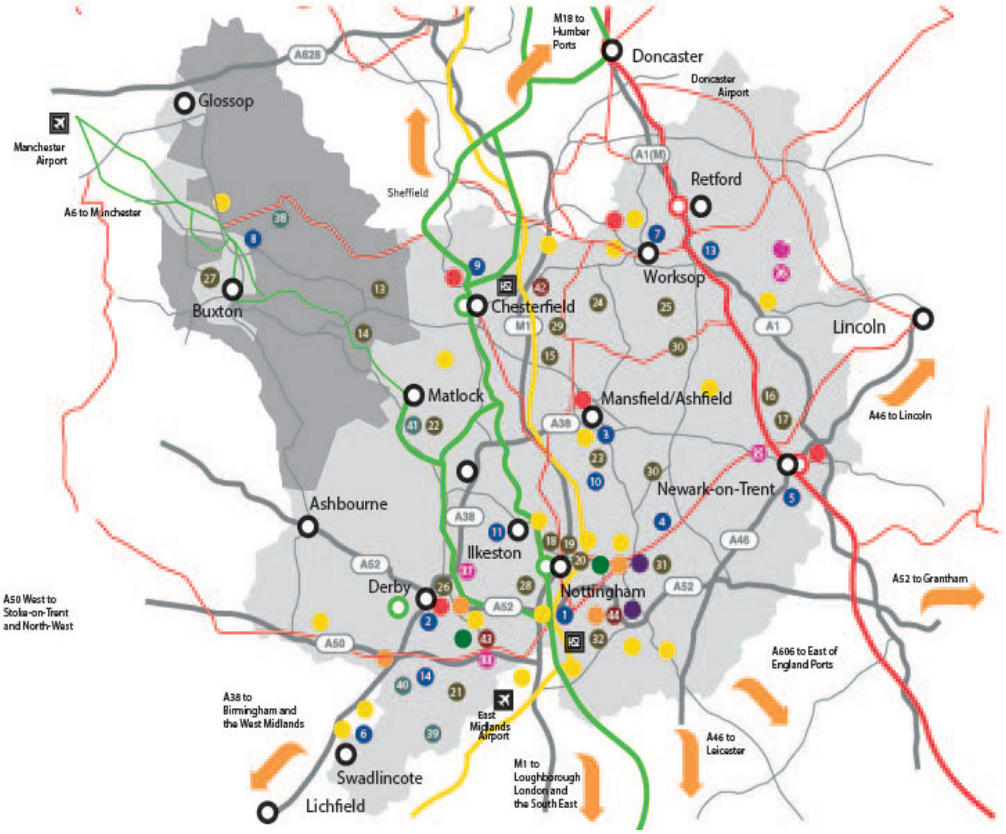
Our rural area's natural environment is a key economic asset for D2N2, with development in areas such as the Peak District requiring sensitive management. The Peak District National Park covers around a third of Derbyshire's land area, and is a premier and distinct UK brand; not just for the Visitor Economy but increasingly – through the 'Inspired by the Peak District' campaign – as a brand of provenance for goods and foods. Our rural areas include key manufacturing businesses; from John Smedley Ltd at Lea Mills, the world's oldest manufacturing factory in continuous operation, to Explore Manufacturing near Worksop, to Laing O'Rourke's modern construction methods.

The D2N2 area's rural parts are affected by many of the same economic issues as its urban ones; but rural areas (whilst not homogenous) also experience specific economic challenges connectivity – travel to work, education and leisure, and also digital connectivity – and also housing availability and affordability, and access to economic opportunities.

Challenges faced by rural areas include:

- difficulties faced by the area's agricultural sector,
- an over-reliance on public sector employment,
- low earning levels (often masked by higher wages
- amongst residents who commute to work in the surrounding conurbations),
- a lack of dynamism amongst the business base.

Our Distinctive Assets



Universities & Colleges

1 University of Nottingham, Nottingham Trent University, Nottingham College, Bilborough College
2 University of Derby, Derby College
3 Vision West Notts College
4 NTU, Brackenhurst
5 Newark College
6 Burton & South Derbyshire College
7 North Nottinghamshire College
8 University of Derby, Buxton, Buxton & Leek College
9 Chesterfield College
10 Hucknall Sixth Form Centre
11 Derby College, Ilkeston Campus

Cultural and Sports

13 Chatsworth House
14 Haddon Hall
15 Hardwick Hall
16 National Holocaust Centre
17 National Civil War Centre
18 National Justice Museum
19 Nottingham Castle
20 Nottingham Contemporary
21 Calke Abbey
22 National Tramway Museum
23 Newstead Abbey
24 Creswell Crags
25 Clumber Park
26 Derby Silk Mill
27 Pavilion Gardens
28 Wollaton Hall
29 Bolsover Castle
30 Sherwood Forest Visitor Centre
31 Holme Pierrepont Water-Sports Centre
32 Trent Bridge cricket

Energy

33 Derwent
34 West Burton
35 Staythorpe
36 Cottam
37 Ratcliffe-on-Soar

Natural Assets

38 Peak District National Park
39 The National Forest
40 Trent Valley
41 Derwent Valley and World Heritage site

Enterprise Zones

42 Markham Vale
43 Derby Infinity Park
44 Nottingham Boots site, Nottingham Science Park, Beeston Business Park

- Major Employers
- Incubator
- Science Park
- Innovation Centre
- Key Knowledge Intensive Business
- Proposed HS2 routes
- Midlands Mainline Railway
- Midland Mainline Railway Stations
- East Coast Railway
- East Coast Railway Stations

- EM Gateway Rail Freight Interchange
- HS2 Hub
- Airport

The economic challenge …

This section summarises the economic challenge we face.

We produce too little output for the number of hours we work.

Despite making one of the biggest contributions to England's economic output, overall D2N2 suffers from an inefficient economy – meaning that compared to our competitors we produce too little output for the number of hours we work – the so-called 'productivity deficit'. Despite having the fifth largest workforce outside London, we have only the ninth largest economy. Too many of our businesses aren't productive enough.



89%
D2N2 Productivity is below the UK avarge

We have too many people in lower paid jobs not enough jobs in higher paid occupations…

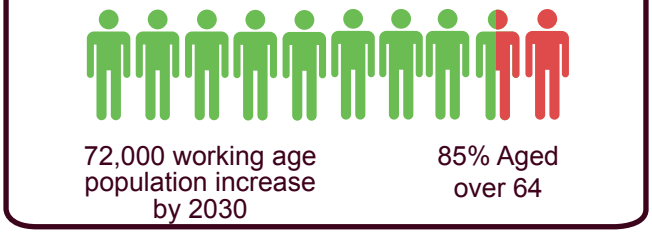
We also have an earnings deficit. There are too many people in lower paid jobs – some 30% of people earn less than the Living Wage - and we don't have enough jobs in higher paid occupations. We also need to recognise that some parts of D2N2 are starting from a much lower base than others - workplace earnings range from 118% of the England average in Derby, to 65% in Mansfield.



30%
People earning less than the living wage

With little new labour expected to come into the economies need to find ways to produce much more output with the labour we have…

Looking ahead to 2030, we can expect our working-age population to grow only very slightly. There won't be a lot of new labour coming into the economy.

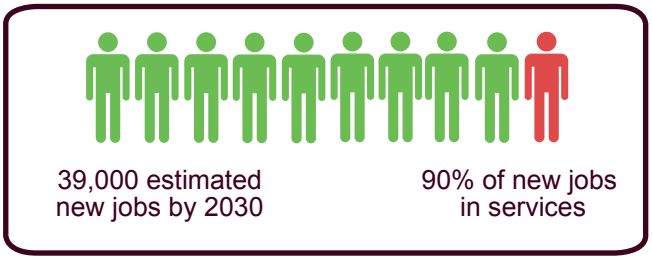


72,000 working age population increase by 2030

85% Aged over 64

We need to enable our workers at all levels to move up the escalator into more productive, better-paid jobs of the future…

As a result, over time, wage levels will increase. We need to enable workers at all levels to move up the escalator into the more productive, better-paid jobs of the future created by our transformed economy. Our Strategic Economic Plan's success depends on how well we manage this transition.



39,000 estimated new jobs by 2030

90% of new jobs in services

We must enable our population and our places across D2N2 to be part of the journey…

As part of our commitment to inclusive growth, we must enable the D2N2 area's people and places to be part of the journey; providing access to opportunities and raising skills levels, and recognising local economies may start from different positions.

The previous SEP's focus was on creating additional private sector jobs. This new Plan signals a shift in priority towards driving up productivity levels; to create an economy with higher-value, better-paid jobs, i.e. a quality of jobs as well as quantity.
In so doing, we need to be resilient and flexible in a rapidly changing business environment. Whilst our future economy's shape will be strongly driven by the 'path' we've followed to date, it will also be influenced by local and global trends.

...we must adapt to and use opportunities presented by economic, social and technological changes and trends

Our Strategic Economic Plan's success over the next decade will depend on how well we respond to the major technological and social trends driving future growth. Linked with the 'grand challenges' identified in the UK Industrial Strategy, four drivers of change stand out:

1. The impact of digital enabling technologies and the 'data revolution' – Not just on specific products, production processes and skills, but on whole business models. Over time businesses will become 'digital businesses', even if their origins or core products pre-date digital technology.

   The possibilities presented by artificial intelligence are increasing as data volumes increase the range and sophistication of tasks that can be carried out without human interaction. Industrial digitalisation or Industry 4.0 is becoming increasingly important across all manufacturing sub-sectors. Manufacturing is changing to incorporate a much broader value chain and improved production techniques. With major industrial players and rapidly growing SMEs across the different manufacturing sub-sectors, our area is at the forefront of Advanced Manufacturing and Engineering. This capability is supported by research excellence that spans our universities. As digital technologies and data become increasingly pervasive across all sectors of the economy, the way industries operate is changing. This includes the increasing adoption of digital techniques, the derivation of value from analysis of 'big data', and the emergence of the internet of things. Our strengths in Digital Technologies and Data include a developing cluster in Nottingham focussed on computer games, financial data management and analysis, and e-health, with growing activity in satellite applications. In addition, the ability of our leading advanced manufacturing firms to embrace and exploit the exciting opportunities associated with industrial digitisation will be key as they seek to enhance their international competitiveness. The rise of digitisation and automation may affect places differently, with the Centre for Cities estimated that Mansfield and Ashfield collectively is the 'city; with the highest share of jobs in occupations likely to shrink by 2030 through automation and digitisation with 29.4% of roles affected, compared to around 21% in Nottingham and Derby and 20.2% in Great Britain as a whole.

2. the impact of decarbonisation and the need for greater resource efficiency, driven by regulatory and cost pressures, as well as the development of new technology.

3. associated with both digitalisation and decarbonisation, the evolution of mobility, in the context of the possibilities offered by autonomous vehicles and (for the transport of goods) drone technology, and by the advent of zero-carbon transport

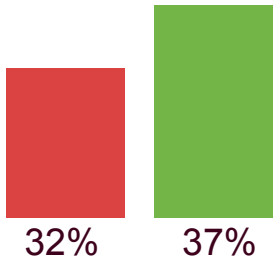
4. demographic change associated with the ageing population. This will drive changes in demand for different goods and services and a changing balance of public expenditure (associated with, for example, the rising costs of health and social care). It will also have significant implications for the labour market: in D2N2, the working age population will rise by just 1% between 2014 and 2039, growing efficiency pressures over time. By the end of this Strategy period the population over 64 years of age in D2N2 will have increased by 25%.

Organic business growth, new sector entrants, the rise of digitisation and the impact of major national infrastructure projects such as HS2, will require significant skills input to drive their success.

…The evolution in our economy will make new demands of our workforce, therefore we will need to raise our skills levels

In D2N2 our workforce is not as well qualified as the workforce in the UK overall, with just 32% qualified to NVQ4 level or above in D2N2 compared to 37.9% in the UK.

This further conceals significant variations in workforce skills between areas with D2N2. Productive firms demand more highly skilled workers who earn higher wages. Our current skills profile limits opportunities for workers and firms in our area.



Lagging working age qualification (NVQ4+)

we must remain resilient and outward looking...

Furthermore, this plan is being developed and delivered in the context of the UK's changing relationship with the European Union. This may have significant implications for D2N2. HM treasury has previously estimated that around 8.5% of the jobs in East Midlands are related to EU exports and therefore 86,000 D2N2 jobs may be exposed to the direct impact of any tariffs levied on exports of goods. Around 5% of the East Midlands working age population are EU nationals, compared to 4% in other regions, excluding London (13%). Out of 116,000 employed EU nationals more than 90% are employed in the private sector 2/3 have middle to high skills.

This strategy needs to remain agile as the UK's new relationships with EU and other global trade partners are clarified.

...but we have opportunities and strengths to build on...

High Speed 2 is a transformational opportunity for D2N2, offering substantially improved cross-Midlands connections, as well as north-south links Phase 2b, connecting Birmingham with Leeds via the East Midlands, with a new East Midlands station

The delivery of HS2 will be transformational for the East Midlands economy. Throughout the build phase and once operational, it will bring new opportunities for living and working in D2N2. The opportunities are about more than the construction of a new railway. The enhanced connectivity HS2 brings will transform the geography of competition and agglomeration amongst businesses, opening up new marketplaces and catchment areas and attracting inward investment. Opportunities begin immediately, as contracts are awarded for the construction of Phase 1 from London to Birmingham, and stretch to beyond the projected 2033 completion date. During this time new technologies and ways of working will be developed and the demographics within the region will shift as 'Millennials' and 'Generation Z' become the key workforce and consumers in the region. Accelerating and maximising the early benefits of HS2 construction will be key to the successful delivery of this strategy.

We face challenges but we are a well-connected economy with distinctive industrial and innovation capabilities, a resilient SME base and a strong record in private sector job creation.



MediCity Nottingham is home to entrepreneurs, start-ups and growing companies within the healthcare, diagnostics and medical technology fields. Life Sciences is one of D2N2's eight key sectors.

Fit for the future - our vision for D2N2 by 2030

This section sets out our vision for the D2N2 economy in 2030. Later we detail the targets by which we will measure progress towards the vision and the themes by which we will structure our action-based strategy.

By 2030, D2N2 will have a transformed high-value economy, prosperous, healthy and inclusive, and one of the most productive in Europe. The spark in the UK's growth engine.

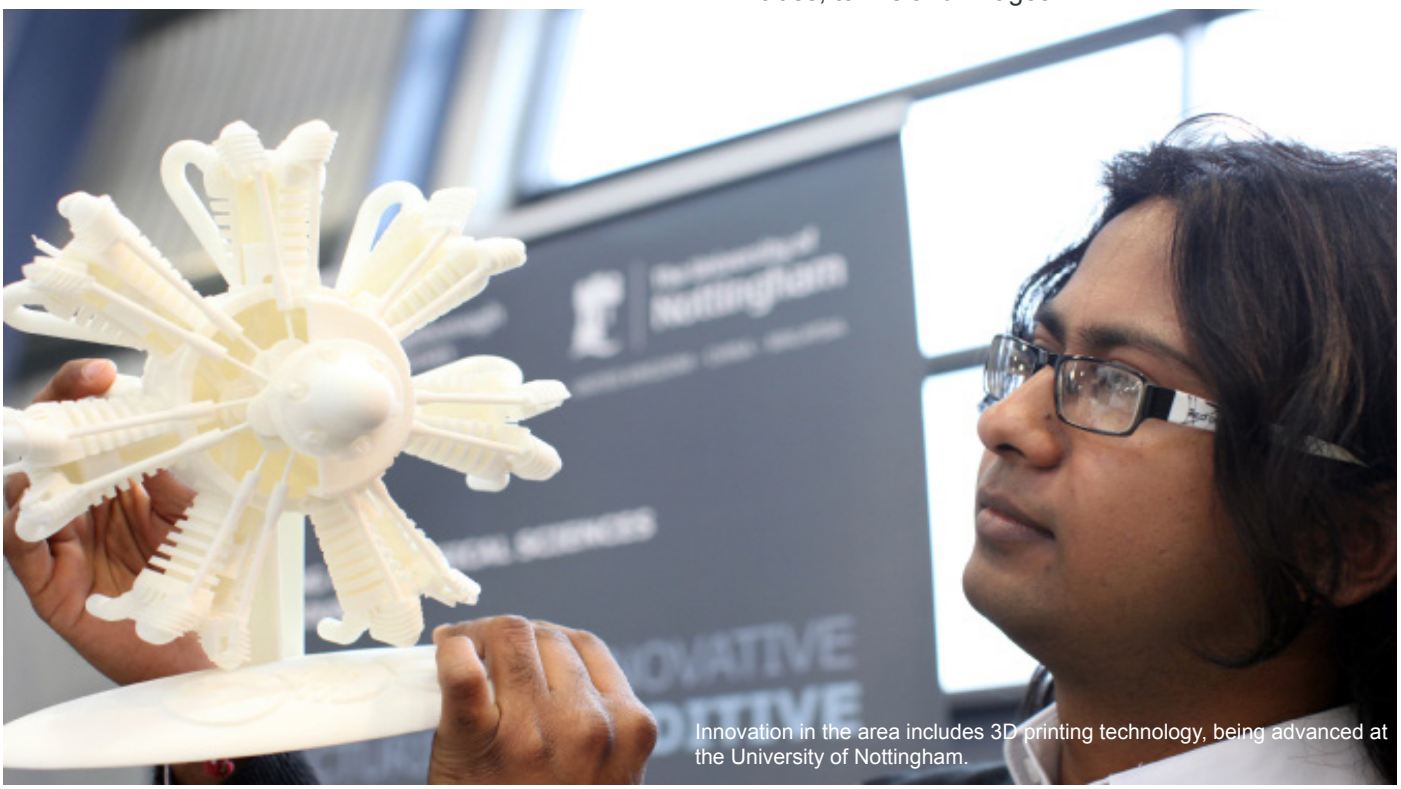
This vision and strategy is for the whole of the economy across the whole of our area. By 2030, we will be a world class innovation-led, highly productive economy with a global reputation for manufacturing excellence. At the forefront of technological and business innovation, businesses of all sizes adopt innovative technologies and ways of working. Outward looking, more D2N2 businesses export more goods and services around the world.

We will be the best and most welcoming place in the country to do business, with firms readily able to access investment, space to grow, connections, expertise and trusted advice and support. We will invest in and reward creativity and be a great place to start and grow a businesses. We will have tackled the causes of our productivity gap and have a more prosperous and productive economy.

We will have a healthy, productive, well qualified and well rewarded workforce supported by a world class education and training system, providing the skills needed by the new economy. We will have eliminated our workforce skills deficit with the rest of the UK. Everyone in every community in D2N2 will have the opportunity to participate in the economy and equitably share the benefits of productive and clean economic growth. Using the dividends of greater prosperity, we will enjoy a rich and varied cult ural and leisure facilities and experiences. Our children will attend excellent schools, colleges and universities.

We will travel cleanly, reliably, healthily and quickly taking advantage of excellent infrastructure and connectivity. We will be served by airports with regular connections to key business destinations across the world, have the infrastructure and services in place to exploit the unique possibilities of High Speed Rail and enjoy the benefits of full fibre broadband connectivity to every business and domestic address. Full 5G coverage will enable new forms of efficient transportation, including the use of increasingly connected and autonomous vehicles.

We will enjoy a high quality natural, cultural and built environment with attractive heritage assets and transformed high streets offering an attractive mix of retail, leisure and residential experiences We will live in affordable and efficient homes in safe, healthy, inclusive and sustainable communities in vibrant cities, towns and villages.



Innovation in the area includes 3D printing technology, being advanced at the University of Nottingham.

Achieving the Vision: Targets

To drive actions, inform the prioritisation of funding and measure our progress towards our Vision, the Strategy sets 7 high level economic targets for 2030.

Targets - by 2030, we will;	Starting Point
1 Be in top quarter of productive local economies in Europe.	D2N2 rank in 2016 was 137 out of 265 NUTS 2 areas with available data.
2 Increase the overall value of economy to £70bn with £9bn being added as a result of plan.	Value of economy £45.4bn. Trend forecast to be £61bn economy by 2030.
3 Enjoy prosperity levels in the top quarter of all LEP areas	GVA per head of population 78% of UK average Rank 27 out of 38 LEPS. Baseline £20,846
4 Raise real wages and narrow inequality through a rise in median weekly earnings of at least 40% across D2N2 with wage disparities within D2N2 narrowed	Median weekly earning £408 Earnings range: Mansfield £301, Derby £500
5 Maintain a high and stable employment rate maintained with a workforce of some 1 million people	95% of economically active in work Workforce of 931,000
6 Reduce the gap in economic activity levels between places in D2N2.	Nottingham 66.10% Broxtowe 88.60%
7 Eliminate the gap in workforce qualifications between the UK and D2N2.	32% of D2N2's working age population compared to 37.9% across the UK.

Achieving the Vision: Strategic Framework

We will deliver the vision and hit our targets through a programme of transformation, built around the three high level themes of:

- Driving long term business competitiveness and growth through improved productivity.
- Building an adaptable workforce, with the skills and knowledge that businesses need in order to be productive and competitive.
- Ensuring that our connectivity, infrastructure and place-making enable our growth aspirations.

Underpinning this is the fundamental need to ensure that people and communities across D2N2 have the opportunity to participate in the transition to the higher-value economy and to benefit from its growth. The transformation process will be driven by innovation, which is a cross-cutting feature of the plan. Within each theme we set out investment priorities to drive action and prioritise investments.

Co-ordinated action across the themes will be necessary to drive progress towards our vision; i.e. investments in technologies and processes and innovation adoption will drive demand for skills, connectivity and market access, driving up productivity.





THEME 1	PRODUCTIVE & GROWING BUSINESSES
Ambition, by 2030 we will;	...be a world class innovation-led, highly productive economy with a global reputation for manufacturing excellence. At the forefront of technological and business innovation, businesses of all sizes adopt innovative technologies and ways of working. Outward looking, more D2N2 businesses export more goods and services around the world. We are the best and most welcoming place in the country to do business, with firms readily able to access investment, accommodation, infrastructure and trusted advice and support to grow and become more productive. We will invest in and reward creativity and be a great place to start and grow a businesses. We will have tackled the causes of our productivity gap and have a more prosperous and productive economy.
Investment Priorities	(1) Business Productivity: Increase levels of productivity across all sectors – so that we have a larger number of businesses with above average and outstanding productivity.
	(2) Business Growth: Realise the high-growth potential of productive business and grow the stock of high-value businesses in the area through start-ups, spin-outs and inward investment – contributing to output growth across all sectors of the economy.
	(3) Business Support: Ensure D2N2's business support ecosystem is fit-for purpose, delivers against our strategic objectives, offers a business-friendly and coherent service, and is driven by the needs of business.
Innovation Investment Priorities	(4) Support innovation led growth and productivity: Rraise performance in our core, innovation-led sectors (Transport Equipment Manufacturing, Food & Drink and Life Sciences) to exceed international benchmarks. Increase the adoption of productivity raising innovative technologies and practises across the economy.


Professor Ellen Billett, Research Coordinator for Nottingham Trent University School of Science and Technology and bio-medical expert

THEME 2	SKILLS & KNOWLEDGE FOR THE FUTURE
Ambition, by 2030 we will;	...have a healthy, productive, well qualified and well rewarded workforce supported by world class education and training system, providing the skills needed by the new, more productive, economy. We will have eliminated our workforce skills deficit with the rest of the UK. Everyone in every community in D2N2 will have the opportunity to participate in the economy and equitably share the benefits of productive and clean economic growth. Using the dividends of greater prosperity, we will enjoy a rich and varied cultural and leisure offer. Our children will attend excellent schools, colleges and universities
Investment Priorities	(5) Future Workforce: Equip people of all ages (and particularly young people) with the skills and knowledge they need to make informed careers choices and to access jobs providing businesses with a stronger pool of talent.
	(6) Inclusive Workforce: Support those who are furthest away from the labour market to re-engage and move towards and into work; and those in work to move up the escalator to more productive, better-paid jobs of the future.
	(7) Planning for future skills needs: Build an intelligent, evidence-based local skills ecosystem that is capable of matching the skills of the population with the needs of business.
Innovation Investment Priorities	(8) Skilled and Productive Workforce: Enable businesses to find the talent they need, take advantage of the core specialist capabilities in the knowledge base and equip their workforce with the skills of the future.



The new University of Derby Chesterfield Centre for Higher Level Skills, opened October 2016, is chiefly aimed at vocational and adult learning. It received substantial D2N2 funding.

THEME 3	QUALITY OF PLACE
Ambition, by 2030 we will;	...travel efficiently, reliably, healthily and quickly to work and for leisure, taking advantage of excellent infrastructure and connectivity. We will be served by an airport with regular connections to key business destinations across the world, have the infrastructure and connections in place to exploit the unique possibilities of High Speed Rail and enjoy the benefits of full fibre broadband connectivity to every business and domestic address. Full 5G coverage will enable new forms of efficient transportation, including the use of increasingly connected and autonomous vehicles. We will enjoy a high quality natural and cultural environment with transformed high streets offering an attractive mix of retail, leisure and residential experiences. We will live in affordable and efficient homes in safe, healthy, inclusive and sustainable communities in vibrant cities, towns and villages.
Investment Priorities	(9) Infrastructure: Promote investment in our physical infrastructure to create a competitive advantage, support business & housing growth ambitions and enhance our natural environment.
	(10) High Speed 2 Growth: Exploit the transformational potential of HS2 to stimulate productive growth across D2N2.
	(11) Place Making & Marketing: Empower communities across D2N2 as great places to live, work, study and visit; and undertake compelling place-marketing in order to attract inward investment and talent to the area, and to drive up visitor spend.
Innovation Investment Priorities	(12) Connectivity: Strengthen our strong transport and digital connectivity to business and labour markets, enabling businesses and people to travel and communicate quickly and easily, and unlocking opportunities for growth. Explore innovative solutions to our mobility andconnectivity challenges.



Artist's impression overview of proposed HS2 East Midlands Hub, Toton, Nottinghamshire

Long Term Productivity Growth through Innovation

We will support long term productivity improvement through innovation-led growth. Long term innovation-led growth permeates this plan and is a theme that cuts across our three themes of productive and growing business, skills and knowledge for the future and quality of place. In implementing our approach, we will build on the evidence provided by our D2N2 Science and Innovation Audit. Around one in five jobs are in 'science and technology' sectors, supported by our 'anchor' corporates and in our impressive, and growing, network of innovation centres and incubation facilities across the area.

The Made Smarter review of industrial digitalisation highlights that the relatively slow rate of technology adoption within UK businesses is acting as a brake on productivity improvements. More businesses need to adopt and adapt to innovation or be overwhelmed by it. In D2N2 we lag behind the UK on some measures of innovation performance, particularly product innovation.

We need to increase the proportion of businesses that are 'innovation active'; enabling businesses to implement process or 'new to the firm' innovations will continue to be as important as the development of new products. This includes adopting new management practices and new methods of work organisation. Enabling businesses to exploit the opportunities from digitalisation will be a key component, building on our successful Digital Growth Programme. We need to exchange knowledge and best practice more widely within the D2N2 economy.

Our specialist expertise fits well with the Grand Challenges identified in the UK Industrial Strategy. As highlighted in the D2N2 Science and Innovation Audit, one of the main areas of expertise in our knowledge base is digitalisation.

Our know-how in advanced manufacturing & engineering (particularly in next generation transport) and low carbon technologies links closely to the Mobility and Low Carbon challenges. Our expertise in Medical Technologies relates directly to the challenge of an ageing population. We also have the opportunity to maximise benefit from the Midlands Engine Transport Innovation, Medical Technologies and Future Food Processing Accelerators; and from the recent establishment of a Nuclear Advanced Manufacturing Research Centre, as part of the Derby Science and Innovation Campus based on Infinity Park Derby; and a new Medical Technologies Innovation Facility in Nottingham.

The SEP sets out our policy framework for innovation led growth alongside wider policies for aggregate productivity improvements. We will set out detailed plans for specific activities in our Local Industrial Strategy. We will strengthen the collaborative working between the LEP, Universities and industry as we implement this SEP and develop our Local Industrial Strategy.

Promoting Innovation

We will build on D2N2's 'Time to Innovate' plan and the 'Enabling Innovation' programme, to embed a more pervasive culture of innovation across the economy. We have a well-developed innovation ecosystem in D2N2; we will work with partners, particularly our Universities, to ensure that it is fully integrated with the wider business support offer through the D2N2 Growth Hub.

The Nuclear AMRC Midlands facility opened in February 2019, at the iHub building, Infinity Park; part of Nottingham & Derby Enterprise Zone, strategically managed by D2N2 LEP. It houses state-of-the-art manufacturing research and development technology.



Promoting Inclusive Growth to widen prosperity

This is a strategy for long term productivity improvement providing for sustainable inclusive growth. It aims to enable the widest range of people to contribute to and benefit from economic success, promote enhanced access to opportunities and greater prosperity. As such it will inform action across the 3 themes of the Strategy.

A report by Nottingham Civic Exchange, the RSA and Nottingham Business School highlights the scale of the inclusive growth challenge in D2N2; which has built up over many years as a result of uneven patterns of economic growth, industrial restructuring and a chronic productivity gap. While the employment rate is relatively high, many of the jobs in the economy are low-skilled and low-paid. The majority of households in D2N2 currently living in poverty are in work, with some 30% of those in work earning less than the living wage. Additionaly, 27.5% of the economically inactive working age population are too sick to work.

Inter-generational exclusion and economic participation below people's expectations is a lost opportunity for the economy. In our vision for a higher-value economy - where we need the make most of the talent we have in a tightening labour market - we need those currently excluded or deprived to be actively participating in the economy, and contributing to growth through their increased spending power.

The plan will address the inclusive growth challenge by;

- Driving productivity increases across all sectors of the economy, driving up wage levels in the lower-value sectors.
- Enabling people to gain the skills they need to enter the labour market and progress up the escalator.
- Providing growth opportunities across D2N2.
- Ensuring transport connectivity to enable people to access job opportunities.
- Having inclusive growth indicators as part of the framework for monitoring the performance of the economy.
- Developing an inclusive growth framework to inform future strategic and investment decisions relating to the SEP.

As part of the implementation of the SEP, we will apply an inclusive growth framework to inform strategic investment decisions relating to priorities identified in the SEP. In order to ensure that the LEP actively promotes inclusion, we will seek to:

- Improve our understanding of inclusion and include it in all planning, implementation and monitoring activity
- Take action to ensure more inclusive practice is achieved through our role in commissioning and strategic planning
- Influence others on the importance and benefits of inclusion

Promoting Clean Growth and Sustainable Development

Clean growth and sustainable development is key to the quality of our place, the health of our workforce and underpins the long term sustainability of our economy. The UK Government has placed its Clean Growth Strategy and achieving clean growth at the heart of its Industrial Strategy and a key contributor to meeting the UK's obligations under the 2015 Paris Climate Agreement.

Energy and low carbon technologies are a key part of the Clean Growth Strategy and D2N2 has considerable expertise and capability in business and universities in this area, which has been identified as an 'enabling competency' for further development during this strategy period.

We recognise the value of D2N2's high quality environment to economic growth, not only in areas such as the Peak District where the economic value of the landscape is widely accepted, but also in terms of the green and blue infrastructure throughout the area. D2N2 continues to support the ecosystems services approach, valuing the role of our natural environment in under-pinning our economy and quality of life and we will continue to safeguarding its quality and identify and build on opportunities to enhance its sustainable contribution to the achievement of our vision, particularly enjoying a vibrant and high quality natural and cultural environment and safe, healthy, inclusive and sustainable communities in vibrant cities, towns and villages. D2N2 will publish an Energy Strategy, which will contributed towards the pursuit of 'clean growth'.

Working with our 'Anchor Institutions'

To support the delivery of the SEP, D2N2 will work with key civic 'anchor' institutions; those influencing the vitality of the local business environment through core functions; such as local government, agencies of national government, the National Health Service and, particularly our educational institutions in support of innovation and knowledge led-growth.

Further Education.

The majority of post-16 learners study or are aligned through apprenticeships to Further Education (FE) Colleges across the D2N2 area. Further Education is a key player in helping drive productivity.

It is important to the economic output of businesses in the D2N2 area. Thousands of D2N2 businesses, both small through to multi nationals, work with and value FE colleges. The growing attraction of international students to FE colleges also provides the D2N2 area with additional travel, tourism, hospitality opportunities for growth, i.e. Colleges attract students who will live and spend in the D2N2 area.

The Further Education sector faces challenges due to evolving funding models; making recruiting and retaining staff with appropriate industrial experience and knowledge, and investing in building and equipment, more challenging. There are further challenges around parental and teacher perceptions, of the value of going into technical and vocational training or apprenticeships and into employment.

D2N2 will work with Further Education Colleges and independent training providers, to promote high quality provision to equip employers and individuals with the skills required by the modern economy.

Higher Education

Our universities are an important economic sector in their own right, as well as supporting innovation across the wider economy. For example, the University of Nottingham generates some £469million annually in economic output. Nottingham Trent University has in excess of 4,000 staff. It plans to invest £250m in capital over a five year period and was recently named 'Modern University of the Year' by The Times and Sunday Times' 'Good University Guide'. The University of Derby has been named among the world's top 250 modern universities in the Times Higher Education (THE) Young University rankings and has recently expanded ambitiously within Derbyshire, bringing the provision of higher level skills to Buxton and Chesterfield. Our three universities have an established partnership supporting D2N2 LEP at a strategic level. Working together, the universities deliver a number of economic programmes to help companies become more competitive.

The strengths of Higher Education map to the changing opportunities and industries of the future and therefore the sector is vital to the delivery of the Industrial Strategy and increasing investment in R&D. Higher Education is vital to supporting the provision of ideas via investment in entrepreneurship and enterprise, and providing business incubation space. The sector continues to invest in activities to widen participation and increase levels of social mobility to help underpin a fairer economy and good graduate level jobs for all. Higher and Further Education institutions develop lifelong learning pathways for individuals and companies. Currently D2N2 is a net exporter of graduates, which represents a lost resource for the D2N2 LEP area.

The universities play a key role in promoting the region and encouraging inward investment, and attracting business investment in technology and innovation. The importance of our universities to our economy is evident in every strand of this Plan.

The Civic University

All three of our Universities are seeking to expand their civic role, reflecting the work of the UPP Civic Universities Commission, an independent enquiry chaired by Sir Bob Kerslake, which is examining how Universities can effectively serve their 'place' as well as playing a global role. D2N2 will continue to work with all our universities to maximise the potentially enormous beneficial impact of their various roles for the local economy; including harnessing their research, skills, insight and expertise.

Health and Social Care Sector

The health and wellbeing of our workforce is key to the overall health of our economy and economic security and prosperity are significant factors in the health of our working age population. The health and social care sector are significant employers within D2N2 with key links to our life-sciences sector. Although the organisational infrastructure of health and social care is complex, D2N2 LEP will look to work with selected partners to both enhance the health of our workforce and the productivity of our health and social care sector.


University of Nottingham

Theme 1 - Productive & Growing Businesses

Ambition, by 2030 we will;	...be a world class innovation-led, highly productive economy with a global reputation for manufacturing excellence. At the forefront of technological and business innovation, businesses of all sizes adopt innovative technologies and ways of working. Outward looking, more D2N2 businesses export more goods and services around the world. We are the best and most welcoming place in the country to do business, with firms readily able to access investment, accommodation, infrastructure and trusted advice and support to grow and become more productive. We will invest in and reward creativity and be a great place to start and grow a businesses. We will have tackled the causes of our productivity gap and have a more prosperous and productive economy.
Investment Priorities	(1) Business Productivity: Iincrease levels of productivity across all sectors – so that we have a larger number of businesses with above average and outstanding productivity.
	(2) Business Growth: Rrealise the high-growth potential of productive business and grow the stock of high-value businesses in the area through start-ups, spin-outs and inward investment – contributing to output growth across all sectors of the economy.
	(3) Business Support: eEnsure D2N2's business support ecosystem is fit-for purpose, delivers against our strategic objectives, offers a business-friendly and coherent service, and is driven by the needs of business.
Innovation Investment Priorities	(4) Support innovation led growth and productivity: Rraise performance in our core, innovation-led sectors (Transport Equipment Manufacturing, Food & Drink and Life Sciences) to exceed international benchmarks. Increase the adoption of productivity raising innovative technologies and practises across the economy.

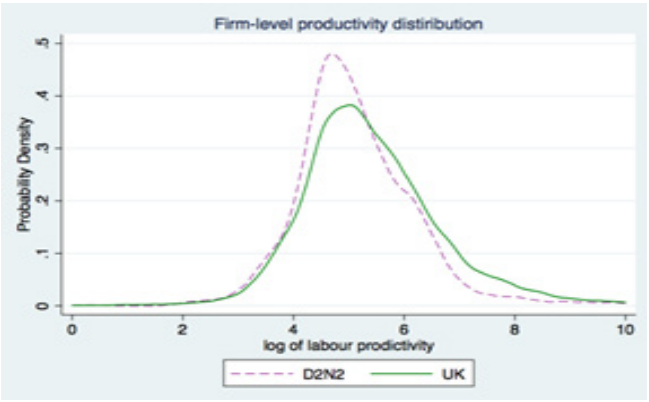
The Productivity Challenge

It is clear from research that whilst the UK has a productivity gap with the OECD, D2N2 has a persistent productivity and incomes gap with the UK. This matters, as CBI describe productivity as "the foundation of wages, living standards, opportunities and prosperity."

Our 'deep dive' review of productivity with Professor Richard Kneller of the University of Nottingham identified that we don't have a long tail of very unproductive businesses, or a lack of exceptionally productive firms but we do have a disproportionately large number of businesses that are around the average, either just below or just above. Our productivity gap is not due to our sector profile or having under-productive places.

Over time, this gap will result in a steady loss of competitiveness, with long-term employment impacts.

Turning this moderate middle band around holds the key to moving from a productivity deficit to a productive, high-value economy. We need to enable the marginal under-performers to raise their game and exceed the average and our moderately productive businesses to strive to be exceptional. This needs to happen across D2N2's business sectors to have the level of impact required, not just in our current high-value, high-growth sectors. Productivity gains in our lower-value sectors will help increase wage levels for our lowest-paid workers.



Tackling the Productivity Gap

Tackling the productivity gap requires a shift in the focus of business support outcomes towards productivity gains rather than just job creation. The 'deep dive' review identified a range of interventions that are required to close the UK gap and where we need to focus activities in D2N2. To close the gap, we will support firms:

- to create efficiently use new technologies
- to enhanced management practices and organisation
- to access to finance
- With enhanced infrastructure and market access.

This will support the entry of better firms and weaker firms to exit. In line with the evidence, in D2N2 we will;

- target the middle firms across sectors
- support increased investment in new capital
- support more firms to export
- support firms to access management, leadership and coaching support
- support small productive firms to grow – not just small firms
- support higher level skills to support the use of better technologies, particularly digital technologies.

Therefore this strategy will not only focus on investments in infrastructure and connectivity to provide better access to labour, supplies and markets, but also develop a range of support to individual businesses to enhance their productivity. This will include;

- Working with firms to benchmark their current productivity and identify how they can improve their performance. For example, the tool developed by Sir Charlie Mayfield's Productivity Leadership Group enables businesses to check their performance under the themes of leadership, employee engagement, future planning and digitisation.
- Coaching to enable the business to identify the specific actions required to address their needs
- Having a coherent suite of business-friendly support options available across the drivers of productivity – including leadership and management, digitalisation, innovation, skills, capital investment and exporting – with the mix of support required driven by the needs of the business.
- Supporting businesses to implement process or 'new to the firm' innovations, adopt new management practices and new methods of work organisation, and exploit the opportunities from digitalisation.

Evolution of the business support ecosystem

The D2N2 Growth Hub has been a huge step forward as the 'front line' support to businesses in the area. It now needs to be re-purposed in terms of targets and broadened in the scope of its role; to be driven primarily by productivity gains, rather than by the number of businesses supported, and to be the access point for all support to business, including skills and innovation.

The Growth Hub's core purpose - to provide free-to-access support and advice to SMEs - will remain the same, but it will be adapted to reflect the new strategic objectives and be driven by the needs of businesses. The Growth Hub will also play an important role in connecting local firms to national Sector Deals and Grand Challenge opportunities, HS2 supply chain support; and identifying opportunities and threats post-Brexit in the light of the UK's new trading relationships and arrangements.

The Growth Hub will need to offer a range of support options encompassing the drivers of productivity, and that support to help businesses to become more productive and productive business to grow should be available to businesses across sectors. The Growth Hub will balance its approach between making productivity enhancing support available to SMEs across sectors and ensuring that our key sectors receive dedicated support for their sector-specific needs and opportunities. Much of this is already in place but needs to be better joined up to make it more business friendly.

The D2N2 Growth Hub will continue to be the local gateway for businesses to access support services, but it will be re-purposed to deliver proactive support in line with the objectives and priorities in this plan.

2a

PRODUCTIVITY FOCUS FOR THE GROWTH HUB

Strengthen the D2N2 Growth Hub and the support it offers to deliver productivity growth across sectors; through better access to exporting, finance, digitalisation, innovation and leadership and management.

2b

PRODUCTIVITY FOCUS FOR THE GROWTH HUB

High Growth, Productive 'Scale-Ups'
We will expand provision of High Growth business support, focused on small but productive businesses and skills information and support.

Nurturing our businesses with high-growth potential

Research has shown that 'scale-up' businesses (with more than ten employees, and growth of more than 20% per annum over three years) create a significant proportion of the UK's economic growth. We need to enable their continued growth as a matter of priority, building on existing support through the D2N2 Growth Hub, but focusing on the growth of small but productive firms.

This needs to happen across D2N2's business sectors, reflecting the presence of scale-ups and other high-growth businesses in a diverse range of sectors, but those businesses in our innovation-led and other significant sectors will be given particular attention. We will work with partners to meet the identified main support needs for high-growth businesses, which are:

- recruiting people with the skills and ambition for technical and business roles
- developing leaders with the ability to manage rapid growth
- selling to large companies and government, entering new markets, regulatory approval for new products
- access to appropriate growth finance
- accessing research and development facilities and finding suitable premises

Supporting Business Investment to Drive Productivity

Implementing new systems, ways of working or technologies to drive productivity requires investment. There are currently a range of products to support business investment from both the private and public sector, frequently backed by European Structural and Investment Funds or EuropeanInvestment Bank investment. D2N2 has collaborated with LEPs across the Midlands and the British Business Bank to establish the Midlands Engine Investment Fund to enhance the availability of finance to SMEs across the Midlands. Through the transition to the Shared Prosperity Fund, D2N2 will continue to work with partners to promote enhanced access to investment and finance for SMEs but will more clearly link products with public investment with supporting overall productivity improvement.

Supporting SME's Access to Finance

Support the successful implementation of the Midlands Engine Investment Fund, and enhance as necessary with locally-flexible investment and grant funds to support businesses to make investments to enhance productivity and for productive firms to grow.



Nottingham regenerative medicines specialist Locate Therapeutics was among the first to receive financing from the £250million Midlands Engine Investment Fund. MEIF total resources includes up to £78.5m from Midlands LEPs' EU funding allocations, £11.75m of that from the D2N2 LEP.

Expanding our business stock

Increasing the relatively low levels of business density in D2N2 will help drive up the value of the economy and it will help build resilience to further loss of employment from larger businesses. We need to increase our overall business stock, though inward investment, and new indigenous enterprises.

Inward investment through businesses locating to the area from overseas or elsewhere in the UK is a key driver of productivity and growth. It tends to introduce productive businesses into the economy, and provides new supply chain opportunities for local businesses. D2N2's local inward investment agencies have an important continued role in securing new inward investors and re-investment by existing investors, working with the Department for International Trade on opportunities from overseas as part of the Midlands Engine partnership. This needs to be linked to our industrial specialisms (see Place Marketing,) and to focus on securing high-value, high-growth businesses.

There is strong competition for mobile investment from across the world, so the quality of our offer, our welcome, and our after-sales service has to be first-class. There is scope to increase impact and secure economies of scale by building on the current joint working by the investment agencies and D2N2's local authorities.

While new indigenous business starts are important to the economy, a very small number are likely to grow significantly within ten years. We will focus support on those new businesses with an ambition to grow, including businesses spinning out from universities to commercialise research. Building on our current business survival rate will also be important for levels of business density. The productivity drive will be the main mechanism for achieving this, but inevitably many of the weaker businesses will not survive in our higher-value economy.



D2N2 Senior Programme Manager for Business Engagement Lindsay Wetton (right) at EastMidsAirport Exporting is Great' display in 2016'

Exporting for Success

D2N2 remains one of the most important LEPs in England for the export of goods. Research has found a strong correlation between beginning to export successfully and productivity growth in firms. In 2017/18, The D2N2 LEP area exported £10.24billion worth of goods, some £1.5bn less than was exported in 2015. Of these exports, 48% went to EU countries (up from 40% in 2015) and 52% to non-EU Countries. (HM Revenue & Customs: Trade Statistics issued 28 March, 2018). Although the value of goods exported from D2N2 is high, there are a few firms that export very high volumes; with our challenge being to maintain that whilst expanding the number of firms exporting.

Exporting

Exporting is a key factor in supporting firm productivity. D2N2 will work with the Department for International Trade and partners to support more firms to export from D2N2; and to increase the overall volume of exports to all markets, building on our existing strong international connections, including in China and India.

HS2 Supply Chain Support

The building and operation of High Speed Rail will offer a variety of opportunities for local business, given our existing rail and construction strengths, and opportunities to secure inward investment. We will work with partners to promote supply chain opportunities in line with the East Midlands HS2 Growth Strategy. This identifies three short term priorities, subject to funding availability, of:

- Establishing a coordinated approach to business support that will help local SMEs benefit from HS2-related contract and supply chain opportunities, to be driven by D2N2, LLEP and the private sector.
- Establishing a 'rail industry innovation group' through Rail Forum East Midlands, to help drive innovation within our thriving SME rail engineering sector.
- Developing a comprehensive HS2 awareness campaign, aimed at raising the ambition of people and businesses to make the most of HS2.

The Strategic Economic Plan identifies that over the longer term, we would expect mainstream Government funding for skills and business support activity to be refocused around our priorities.

Supporting Businesses – Segmenting the Business Base

To achieve our ambitions for aggregate productivity growth, we need businesses in all sectors to improve performance, and we will repurpose our Growth Hub and business support products accordingly. At the same time we will seek to capitalise on our distinctive industrial assets, particularly associated with advanced manufacturing, underpinned by very strong research and innovation capabilities; and respond to the specific opportunities and challenges of key sectors, clusters and types of firms in the D2N2 economy.

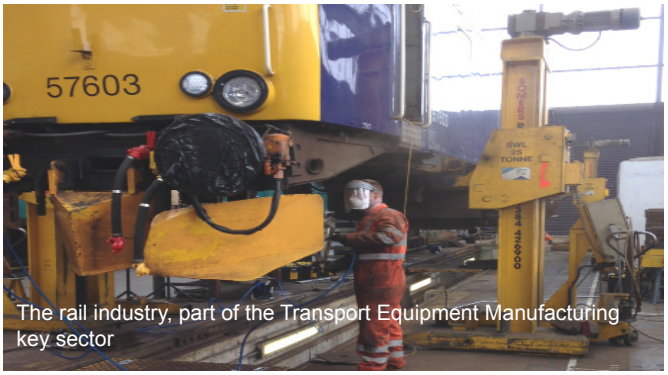
Technology and Sectors

Sector definitions are challenged by the emergence of new technology. It remains difficult to satisfactorily define through SIC codes what we may think of as 'digital' and 'low carbon' sectors. Many technology drivers of change cut across conventional sector boundaries, as traditionally separate sectors 'converge'. In essence, sector definitions are static, but the real economy is dynamic: innovation and new business growth will occur where there is a market, which may not align with a pre-existing sector schedule. Therefore we will look to adopt a more intelligent, agile and evidence led approach to segmenting and supporting our business base through a combination of generic and specific services and interventions driven by how we can most effectively increase our aggregate productivity.

Priority Sectors

We have identified 11 priority sectors important to the D2N2 economy for different reasons and will need different interventions in order to effectively contribute to productivity growth. Where appropriate, D2N2 will seek to maximise the value of sector deals for the D2N2 economy.

Our priory sectors are split into two categories, our Science and Innovation Core Sectors and our Opportunity Sectors. These sectors have been identified according to their degree of specialisation, tradeable 'clustering', concentration of employment or prospects for growth as described in the table.



The rail industry, part of the Transport Equipment Manufacturing key sector

	Sector Analysis	Specialism[1]	Cluster[2]	Jobs[3]	Growth[4]
Core	Transport Equip. Man.	●	●		●
Core	Food & Drink Man.	●	●		●
Core	Life Sciences	●	●		●
Opportunity	Creative & Digital		●		
Opportunity	Visitor Economy		●		
Opportunity	Logistics & E-Commerce	●	●		●
Opportunity	Construction		●	●	●
Opportunity	Extractive Industries	●	●		
Opportunity	Retail			●	
Opportunity	Health/Social Care			●	
Opportunity	Prof./Business Service		●	●	

1, Location quotient above UK average

2, Evidence of clustering in 'tradeable' sectors, i.e. with strong connections to national/ global markets

3,> 5% of all D2N2 jobs in sector in 2016

4,Projected growth in GVA > 25% to 2030

Science and Innovation Core Sectors

We need to exploit D2N2's competitive edge and build on those parts of the economy which offer global opportunities for growth.

We will exploit D2N2's competitive advantages in our three Science and InnovationCore Sectors of;

- Transport Equipment Manufacturing,
- Food & Drink Manufacturing,
- Life Sciences.

Transport Equipment Manufacturing

Motor vehicle and 'other' transport equipment manufacturing are specialised, highly productive and forecast to grow in the future. The 'other transport equipment' manufacturing sector has the largest average employment per business of any D2N2 sector.

The D2N2 area is recognised as being home to a critical mass of globally competitive businesses, and high-technology SMEs, operating within and across a range of transport-related industries. Major industrial strengths and research excellence are evident in the aerospace, automotive and rail sectors. In aerospace and rail particularly, our business base covers the full spectrum from R&D through to production and after sales service, putting us at the forefront of 'Next Generation Transport'

Our priory sectors are split into two categories, our Science and Innovation Core Sectors and our Opportunity Sectors. These sectors have been identified according to their degree of specialisation, tradeable 'clustering', concentration of employment or prospects for growth as described in the table.

There are significant growth opportunities for the sector. The global rail market is forecast to be worth £128bn by 2019. Low emission vehicle exports were estimated to be worth £2.5 billion to the UK economy in 2015. In the UK 80% of the vehicles produces here are already exported across the world. The global volume of air traffic is expected to increase to 16bn passengers annually in 2050 (compared to 3.7bn passengers in 2016).

Overall, the large civil airliner market is forecast to be worth $3.2tn by 2030. The market for CAVs (Connected and Autonomous Vehicles) in the UK is estimated to be worth £28bn in 2035. Employment estimations for the manufacture and assembly of CAVs are 6,400 people in 2020, rising to 27,400 by 2035.

TRANSPORT EQUIPMENT MANUFACTURING

D2N2 will work with partners on a Productivity and Growth Plan that will strengthen supply chain programmes focused on increasing productivity, link clusters to world class research facilities, support the provision of skills required for the digital manufacturing processes of 'Industry 4.0', deepen links to science and innovation expertise and ensure that there is a supply of premises and opportunities for business growth.

Food and Drink Manufacturing

Food and drink manufacturing is specialised in GVA and more productive than sector benchmarks, although below the national level of productivity. It accounts for over 2% of both D2N2's GVA and jobs, and is growing on both measures. The ONS (Office for National Statistics) has shown that Derbyshire and Nottinghamshire has been the main contributor to the increase in food and drink manufacturing GVA in the East Midlands. In 2012, D2N2 accounted for 28.7% (£840m) of F&D manufacturing GVA in the East Midlands (£2,926). In 2015, D2N2 accounted for 36.4% (£1,209) of GVA in the East Midlands (£3,320). This is an increase in GVA of £369million in D2N2, i.e: a 43.9% increase.

There are significant global opportunities for food and drink manufacturing. It is estimated that demand for food will increase by c.90% by 2050. This includes expected increases in meat consumption in low income countries, and dairy product consumption in developing countries.



Medical devices supplier Chalice Medical of Worksop received £487,500 from D2N2's 'Unlocking Investment for Growth' programme, in 2014, helping it expand to larger premises.

Life Sciences

The Midlands Engine Science and Innovation Audit also identified Medical Technologies and Pharmaceuticals as an important area of strength for the Midlands. Reflecting the presence of major employer Boots and its expertise in pharmacy, wellbeing and beauty, our strength in D2N2 extends beyond this.

We have a broad base of Life Science and Healthcare strengths with a clear spatial opportunity around Nottingham's expanding cluster, with links south to Charnwood but with firms across the area including the High Peak. Our strengths include Biotech and Pharmaceuticals, alongside medical technologies and wellbeing with capabilities in clinical trials, trauma and defence medicine and medical devices. For Human Health in particular, it is important to recognise our relationships with firms and researchers outside of the D2N2 area.

There are global opportunities for the Life Sciences sector. Global healthcare spending is estimated to rise by 4.3% by 2020, reaching $8,734bn. Hospital spending on analytics is expected to reach $18.7bn by 2020, due to the focus on quality improvement and cost reduction. Pharmaceutical sales are expected to improve between 2016-2020, globally, growing at an average of 4.4%. The European medical technologies market is worth an estimated €100bn, almost a third of the global market. The UK's medical technology market is the third largest in Europe, worth around £7.6bn. The fastest growing segments by revenue are medical imaging, in-vitro diagnostics, and drug delivery.

Our priory sectors are split into two categories, our Science and Innovation Core Sectors and our Opportunity Sectors. These sectors have been identified according to their degree of specialisation, tradeable 'clustering', concentration of employment or prospects for growth as described in the table.

LIFE SCIENCES

D2N2 will work with partners on a Productivity and Growth Plan that addresses key challenges in the sector, including supporting development of the research and development base; including higher education links, and the availability of premises and investment to support business growth.
and skills information and support

3

INNOVATION LED PRODUCTIVITY GROWTH

Collaborate with universities, businesses and sector bodies to develop and implement productivity and growth plans in our science and innovation core sectors, and exploit our advantages in our four enabling competencies.

Opportunity Sectors

Our 'opportunity sectors' are Priority Sectors important to the local economy in different ways, and which will require varied interventions to support productivity growth. As described above, they may be important to the economy because they are particularly specialised; or there is a cluster of activity within D2N2, or part of our area, combined with being a major employer or having strong growth prospects.

Large employment but relatively low paying sectors that are subject to change have a large impact on our aggregate economic productivity and the pay of large parts of the D2N2 workforce. Raising productivity and pay in these sectors is key to promoting 'inclusive growth'.

SUPPORTING OUR OPPORTUNITY SECTORS

We will work with partners to identify the key interventions required to support our opportunity sectors, to contribute to productivity growth in D2N2 and work with partners to prioritise and implement them.

Creative and Digital

Creative and Digital Industries (CDI) is a large sector covering a wide range of areas. These include video and film production, photography, music, book publishing, radio/TV broadcasting, computer games development, social media, software that supports these industries and the telecommunications sector.

It is a fast growing sector locally, nationally and internationally, and digital is important to the growth and development of other sectors. It is crucial that supplying software services and digital technologies for transport equipment manufacturing, life sciences, visitor economy, and construction sectors can encourage innovation and design quality.

The use of big and open data to be able to map out trends and forecasts is vital to the development of the sector. Furthermore the creative and digital industries are a way to enhance the D2N2 area's appeal; by attracting more inward investment, driving socio-economic change and creating a culture of innovation, enterprise and creativity across other economic sectors.

CREATIVE & DIGITAL

Key requirements include support for sector marketing and visibility, enhancing leadership and management skills, improving access to appropriate financial instruments, boosting technical skills, improving access to networking, better connectivity and, for some subsectors, availability of appropriate workspace.

Logistics & E-Commerce

This is a strong commercial cluster and a D2N2 specialism in terms of share of GVA. The sector outperforms national peers on productivity. It sustains some 22,000 jobs in more than 2,500 businesses. It has a 28% GVA growth forecast, to 2030. Employment in the sector is dispersed around that area, particularly around key transport corridors and hubs. Productivity from automation, evolution in skills requirements.

LOGISTICS & E-COMMERCE

There are significant potential opportunities given our central location as a transport hub and links to strengths in knowledge base (e.g. systems integration). The availability of sufficiently large sites near major junctions will affect the scale of growth.

Extractive Industries

There is a nationally significant cluster based in the north-west of D2N2. Infrastructure in the UK will drive demand for product, i.e: growing civil engineering markets such as HS2, Crossrail2, and housebuilding. The mining and quarrying sector has a matured but ageing workforce and workforce replacement is anticipated to be an increasing priority for the sector over the coming decades.

It has very local supply chains. Encouraging younger people into the sector is likely to become increasingly important and there is currently an underdeveloped skills infrastructure in place nationally to ensure the supply of workers into the sector.

EXTRACTIVE INDUSTRIES

Investment in overcoming known local road congestion challenges will significantly help the sector to transport bulk minerals efficiently. Investment in rail infrastructure will help to unlock the market reach of minerals from High Peak and Derbyshire Dales.

Construction

Construction is slightly over-represented in terms of GVA, slightly under-represented in jobs and productivity is just below the sectoral benchmark. It accounts for around 6% of both D2N2's GVA and jobs, and is the largest D2N2 sector in terms of the size of the business stock. Over the past 15 years, GVA has grown but employment levels have fallen.

Both indicators are expected to rise in the future. An important sector in terms of scale of employment across D2N2, it has the largest business stock (more than 8,500) of all sectors in the economy and high GVA growth is forecast to 2030 (45%). The sector is also important in relation to HS2, housebuilding, infrastructure and employment sites, and links to strengths in knowledge base (e.g. low-carbon construction).

The strength of the Construction sector is intrinsically linked to the performance of the wider local and national economies. National policy (e.g. housebuilding), government investment (e.g. major transport schemes) and growing business confidence (leading to increased commercial property demand) are key drivers for the sector.

D2N2 has emerging strengths in modern methods of construction (MMC), such as off-site manufacture and low carbon construction, including expertise in Nottingham Trent University and Laing O'Rourke's Explore Manufacturing facility near Worksop. D2N2 will seek to support the growth of our capability to explore the growth in utilisation of MMC techniques.

CONSTRUCTION

The local challenge is to ensure a pipeline of skilled workers for the Construction industry, exploit our advantages in our knowledge base, support the industry to adapt to digitisation and exploit the opportunities arising from Modern Methods of Construction and low carbon technologies.

Visitor Economy

The Visitor Economy is important in employment terms for city and rural economies and also generates significant income through visitor spending (more than £6bn in East Midlands in 2016, with £1.6bn in Derbyshire alone), as well as helping to raise the profile of the area externally. VisitEngland / VisitBritain predict that inbound tourism to Britain is due to grow by 3.8% every year until 2025.

In D2N2 we have opportunities to exploit our outstanding natural, heritage, cultural and sporting assets to increase the value of the Visitor Economy. There are opportunities to boost the value and productivity of the sector by targeting new markets, offering higher value experiences, extending the 'season' and increasing the global market share of international leisure visits, business visits and the events sector.



Derby Museums is part of 'The Grand Tour' partnership; an initiative by D2N2 area cultural sites to increase visitor numbers, which received LEP funding.

D2N2's heritage assets are distinctive to our area, reflect our rich and varied history and can be a source of high value visits. D2N2 has already invested Local Growth Funding in key heritage attractions such as Nottingham Castle and the Sherwood Forest Visitors' Centre. There is potential to develop marketing and capital investment approaches to enhancing other assets, such as through the Derwent Valley Mills world heritage site. We will also be agile to the opportunities offered by the Tourism Sector Deal, such as Tourism Action Zones, to develop our priority visitor economy sector.

Working in partnership through the Midlands Engine, we will seek to exploit the opportunities of enhanced connectivity provide by East Midlands, Birmingham and other key airports and particularly High Speed Rail, with a focus on the most lucrative markets including the USA, China and India. The 'Experience economy' continues to expand, requiring continued investment in 'experience' facilities to promote vibrant destinations.

VISITOR ECONOMY

We not only need the scale and quality of 'product' to support high value visitor spend, our businesses need to be 'international ready'. We need effective marketing of our key destinations and products, the roll out and effective utilisation of enhanced digital connectivity, and the development of a skills and careers approach to provide for an escalator of roles and support. D2N2 will continue to work with partners to take advantage of emerging opportunities, such as the designation of a Tourism Action Zone in the D2N2 LEP area.

Professional & Business Services

The professional, business and financial services sector serves both firms and individuals. In Derby and Nottingham it is largely dependent on the strength of the underlying business and consumer economies and tends to be regionally rather than nationally focused. Over recent years there has been some relocation in the sector (notably large accounting firms relocating from cities to near East Midlands Parkway). This has been balanced by the growth of other firms within the city centres. This sector employs a large number of people in both cities, often with a focus on high income and graduate level opportunities.

Productivity is quite high in our IT services, finance and insurance, and real estate sectors, and they are reasonably large employers. They account for a smaller share of employment than in the country as a whole. However, D2N2 does contain significant assets in this category, particularly in Nottingham; including firms (such as Experian) in quite specialised areas of data analytics.

D2N2 will support the development of 'critical mass' in our high value professional and businesses services sectors. As the business base grows, the talent pool is also likely to grow, in turn providing a further location incentive. This will involve understanding the potential for local specialisms, such as, potentially, 'fintech', as well as an inward investment-driven strategy.

PROFESSIONAL & BUSINESS SERVICE

Growth in high value services will contribute towards increased productivity performance with lack of availability of 'Grade A' office space in key locations an identified challenge. The East Midlands HS2 Growth Strategy identifies High Value Services as a sector which can particularly benefit from HS2 connectivity.

High Volume Sectors

Large employment but relatively low paying sectors which are subject to change have a large impact on our aggregate economic productivity, and the pay of large parts of the D2N2 workforce. Raising productivity and pay in these sectors is key to promoting 'inclusive growth'.

Most of the jobs in D2N2 are in sectors that primarily provide a service to the local population e.g. retail, and health & social work. There will always be a need for a healthy services sector and this sector will continue to be the main source of employment within the local economy. Increasing firms' productivity in these sectors, and the skills demand and supply, can promote both aggregate productivity improvement and inclusive growth, by supporting higher wages at the lower end of the labour market.

This can complement economic growth from high-value-added sectors; notably manufacturing, which overall is D2N2's main sector specialism.



Artist's impression of planned changes under Nottingham's Broadmarsh and Southern Gateway plan; co-funded by D2N2's Local Growth Fund allocation.

Retail

A high employment, high job creation but relatively low productivity business to consumer sector. Trends towards on-line retail are set to continue with implications for the type and location of retail business and retail employment in D2N2. This will affect not only the types of roles within the retail sector but also where retail takes place –with implications for the vitality of high streets in our cities and towns. Although the ability for D2N2 and partners to support retail businesses may be limited, we will seek to encourage the creation of higher value employment by supporting productivity improvements and complementary skills support.

Health & Social Care

A high volume and high job creation sector. Within the context of an ageing population, the health and social care sector is set to expand. Social care budgets are under increasing pressure and the shortage of workers is being exacerbated by uncertainties related to Brexit. The model of social care is having to respond to these pressures and assistive technology will become increasingly important in enabling people with care needs to live independent lives. New entrants to the sector's workforce will require greater skills, and the image of the sector as low wage/low skill will need to be countered.

Enabling Competenices

Cutting across sectors we have four areas, described as 'enabling competencies' where D2N2 has stand-out specialisms in the knowledge base (industry and centres of research & learning). These are;

- Advanced Manufacturing
- Digital Technologies and Data
- Systems Integration,
- Low Carbon technologies

We will work with businesses and educational institutions to support collaborative competency, technology and knowledge based transfer across institutions and sectors to drive productivity and develop D2N2's collective response to the Grand Challenges.

Enabling Competency 1 - Advanced Manufacturing and Engineering

Manufacturing is changing, both in terms of production and the broader value chain. The emergence of Industry 4.0 and its associated technologies and techniques – including cyber physical systems, big data analytics, the Internet of Things and cloud computing (often summarised as industrial digitalisation) – will lead to the rise of 'smart factories', and a major shift in how products across multiple sectors and technology areas are produced. Capitalising on industrial digitalisation will help UK firms to "make things smarter, better and faster." With businesses and researchers in D2N2 offering important capabilities in this space, and in Digital Technologies and Data, we are very well placed to lever in technological leadership, promote rapid adoption and drive further innovation in this area.

The manufacturing value chain is expanding to incorporate a wider set of activities. Research and development (R&D), product design and development, supplier management, and after sales services are opportunities to generate value; including through the 'servitisation' of manufacturing.

Manufacturing and engineering remain an important part of our economy. Some 126,000 people are employed in the manufacturing sector in our area. Employers range from SMEs to multinational firms across a broad spectrum of manufacturing sub-sectors. Organisations in our area are not just reacting to trends discussed, they are helping to shape and drive them. For this reason, Advanced Manufacturing and Engineering is our first enabling competency.

Large multinational manufacturers in areas as diverse as transport and food operate in our area. Toyota's largest UK site is in D2N2, while Nestlé has largescale facilities at the very northern and southern edges of our area. Textiles manufacturing has historically been important to our area and continues to be with Speedo's HQ and R&D centre are located in Nottingham; alongside Paul Smith, Quantum Clothing, and technical and medical textiles firm Capatex. Three of our fastest growing scale-ups are manufacturers:

- Tioga - contract manufacturing services for advanced electronic products.
- Lasershape - Provides laser and waterjet cutting.
- Swiftool Precision Engineering - Manufactures a range of components, turnkey projects and kits.

The University of Nottingham had the third most powerful research in 'General Engineering' in the UK. Specific centres of excellence in our area include:

Nottingham's Precision Manufacturing Centre, Derby's Institute for Innovation in Sustainable Engineering, and Nottingham Trent's Advanced Design and Manufacturing Engineering Centre. The University of Nottingham also hosts the '20 partner Network Plus: Industrial Systems in the Digital Age' project. Its new Advanced Manufacturing Building houses research and teaching activity. The Smart Specialisation hub has identified a high innovation capability in High Value Manufacturing in D2N2.

Importantly, the Derby Manufacturing University Technical College (UTC) will help to train the next generation. Support from lead industrial partners Rolls-Royce, Toyota and Bombardier will ensure that they are fully equipped to tackle the challenges and opportunities that Industry 4.0 and associated trends will represent for our businesses. The UTC specialises in engineering education and training, with a specific focus on advanced manufacturing, product design, materials science, advanced composites and sustainability in engineering also hosts the '20 partner Network Plus: Industrial Systems in the Digital Age' project. Its new Advanced Manufacturing Building houses research and teaching activity. The Smart Specialisation hub has identified a high innovation capability in High Value Manufacturing in D2N2.

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Enabling Competency 2 - Digital Technologies and Data

As digital technologies and data become increasingly pervasive across all sectors of the D2N2 economy, the way industries operate is changing rapidly. This includes the increasing adoption of digital techniques from computer-based filling systems through to industrial digitalisation, the derivation of value from analysis of 'big data', and the emergence (and proliferation) of the Internet of Things. Our enabling competency in this area reflects these trends and the emergence of a dynamic digital tech cluster in Nottingham.

Using Tech City's definition of digital technology employment, there are 23,000 jobs in this area across D2N2. Many of these are in Nottingham where Tech City identified a digital cluster. Four specific areas of activity are highlighted below.

- Computer games sector – Ukie has identified 28 firms in Nottingham and a further ten in Derby with significant players, including Sumo.
- Financial data management and analysis – Experian, TDX Group and Capital One are based in Nottingham.
- Life sciences and e-health – BioCity hosts a number of firms reliant on the development of advanced digital applications to drug discovery and medical devices.
- Satellite applications – The University of Nottingham hosts the Space TEC Programme, a two year incubation project based at UNIP, which is part-funded by the UK Space Agency.

These applied industrial strengths are backed by complementary research at our HEIs. The University of Nottingham's Horizon Digital Economy Research Institute, and Nottingham Trent's Computational Intelligence and Applications Research Group and Creative and Virtual Technologies Research Lab, give us an international competitive advantage in Computer Science research.

Our Advanced Manufacturing research assets connected to industrial digitisation are also important in the context of Digital Technologies. Our HEIs also provide valuable training in this area. For example, Nottingham Trent University offers an MSc in Data Analytics for Business, which follows a curriculum co-designed with employers, whilst the University of Derby has an MSc course in Big Data Analytics.

Our HEIs are collaborating with internationally significant players in this area. There have been 18 collaborations with Microsoft and Nottingham, as well as three with IBM. In addition, all three of our HEIs have collaborated with cyber security experts QinetiQ, and both Nottingham HEIs have worked with Cambridge based ARM. Our strengths in this enabling competence are also applied in areas as diverse as heritage. Nottingham Trent University is using digital technologies for 3D modelling, animation and scanning as part of its research theme on Global Heritage.

There is scope to do more to link these well-evidenced strengths with our advanced manufacturing and engineering strengths.

Enabling Competency 3 – Energy and Low Carbon

Our excellence in academic research, important employers, and the application of innovative low carbon technology (whether in low carbon construction, district heating or demonstrator projects) form the basis of our strength in Energy and Low Carbon. Although identified as a 'market opportunity' in our Science and Innovation Audit, given its reach across industrial sectors, it is considered as an ' Enabling Competency' in our SEP.

The carbon-intensity of the global economy is predicted to halve by 2040, due to tougher regulations and a transition to less carbon-intensive energy sources. In this context, the world energy market is due to grow. World energy consumption is expected to increase by 28% by 2040. Global electricity demand is projected to increase by 85% from 2010 to 2040. World electricity generation is predicted to increase by 70% from 2011 to 2030.

Solar and wind energy is predicted to account for 20-39% of power generation in 2060, up from just 4% in 2014. Global investment in the power sector is forecast to be $21tn up to 2040, with over 40% in transmission and distribution networks. The worldwide energy storage market is expected to quadruple to $6bn by 2020. The use of nuclear power will increase intensively in developing nations. Nuclear energy is expected to increase by over half from 2014 to 2040.

Energy and Low Carbon is more concentrated in our area in terms of jobs, with more than double the number of jobs, as a proportion of total employment, compared to Great Britain; but it is under-represented in the number of businesses. E.ON has multiple offices in our area and operates the combined heat and power plant at Nottingham Queen's Medical Centre. Other important employers in the energy sector include Robin Hood Energy, a local authority owned not for profit energy company; Hoval, a designer and manufacturer of commercial heating systems; and Rolls-Royce, producing nuclear reactor systems for the UK submarine fleet, and a major player in relation to small modular reactors also used in commercial mainstream nuclear power generation.

D2N2 also has developing capacity in nuclear technologies through the Nuclear Advanced Manufacturing Research Centre (AMRC) Midlands at the iHub, on Infinity Park in Derby, (opened February 2019). This will support our manufacturing SME base in accessing the expanding nuclear supply chain through the 'Fit for Nuclear' programme. Our scientific research assets in the Energy and Low Carbon field include:

- The British Geological Survey (BGS) - A world leading geological survey organisation and the UK's premier provider of authoritative geoscientific data and knowledge, for wealth creation.
- The Energy Research Accelerator (ERA) – Cross-disciplinary energy innovation hub which brings together the BGS, the University of Nottingham and five other Midlands HEIs.
- The Energy Technologies Research Institute –A focal point for research and industrial collaborations at the University of Nottingham.
- The University of Derby's Institute for Innovation in Sustainable Engineering includes energy and the environment as one of six core themes.
- The Centre for Energy Innovation was established at the Health and Safety Laboratory (HSL) in Buxton in 2016.

Our area is also distinctive because of the location of several energy and low carbon demonstrator projects in and around Nottingham, including:

- Creative Energy Homes is a £1.9m project of seven test houses on the University of Nottingham campus.
- The Community Energy Demonstrator at Trent Basin is a large scale regeneration scheme. It includes an integrated smart heat and power micro-grid for low energy demand buildings, ground source heat pumps, and communal battery storage.
- The University of Nottingham's Geo-Energy Test Bed (an Energy Research Accelerator facility) is designated for the testing and 'ground-truthing' of borehole sensors and software.

- On the University of Nottingham's Innovation Park (pictured below), the Energy technologies Building is itself a low carbon building and hosts research facilities including a smart grid, a prototyping hall and the UK's first green hydrogen refuelling facility.

- The BGS's UK Geoenergy Observatories project will create subsurface energy-research test centres to develop new energy technologies (although the first two centres will be outside D2N2)

Low carbon construction and building technologies are important for both new build and retrofitting existing properties. The headquarters of Bowmer & Kirkland and Gusto Group are in our area, as is Laing O'Rourke's 'Explore Manufacturing' facility.

The D2N2 Energy Strategy

We will work with partners to publish and implement a D2N2 Energy Strategy that will help to capitalise on these strengths and unlock decarbonisation related growth opportunities. There a clear synergies between energy and low carbon across our sectors and with our other enabling competencies of systems integration, digital technologies and advanced manufacturing.

We will work to exploit market opportunities for our assets arising from the Government's Sector Deals, Grand Challenges and other Industrial Strategy funding opportunities. We will further work with partners to identify niche specialisms within the core sectors and enabling competencies in which D2N2 already has, or has the potential to secure, an international competitive advantage. Their support needs are likely to include: test facilities, digitalisation, supply chain development and commercialisation of research.



Enabling Competency 4 – Systems Integration

Systems integration involves research into the development of products, processes, and services and their subsequent implementation to enable 'whole systems' approaches to a wide range of economic and social activities. It also includes how these products, processes and services can be better designed, managed and operated, including through the intelligent use of data to inform decision making.

Whole systems thinking and integration is particularly prominent in our area in relation to energy, particularly developing a 'whole systems' approach to how energy is generated, stored, supplied, managed and consumed. Smart Cities are another area where whole systems thinking is critically important. Through the EU funded REMOURBAN project, Nottingham aims to take advantage of the crossover between energy, mobility and ICT to develop a new method for developing smart cities.

As well as these broader themes, whole systems thinking can also be applied to more specific areas of focus and these are demonstrated by our major private sector firms. SNC-Lavalin, with its UK HQ in Derby, has expertise in integrating rolling stock and i nfrastructure though rail control systems. Systems integration is also evident in integrated manufacturing systems to ensure efficient and high quality product design, development and production. This is particularly important to major companies such as Rolls-Royce and supported by the Manufacturing Systems Integration Laboratory at Nottingham University, which focuses on manufacturing processes, automation control and the use of sophisticated robotics. We also have a wider consultancy and technical testing and analysis business base.

As systems integration is inherently cross-cutting and multi-faceted, involving thinking across rather than within individual disciplines, it is difficult to capture within published data on research excellence.

Capitalising on our Competitive Advantages
To exploit our competitive advantages in our enabling competencies, we will work with business, universities and partners to;

increase productivity through exploitation & adoption of new technologies and processes

Support the development and commercialisation of innovative products, goods and services

Increase industry & research base links to accelerate commercialisation and innovation.

Supporting Investment in Innovation

We will work with partners to secure funding for collaborative projects that promote business innovations such as the Infinity Park Science and Innovation Campus which will include the Midlands facility for the Nuclear Advanced Manufacturing Research Centre.

We will further work with partners to secure funding for a range of innovation facilities and programmes, in line with this strategy, including to;

- become the UK's transport innovation test bed, securing national centre of excellence in Next Generation Transport,
- secure national recognition as UK life sciences and creative & digital centre,
- maximise D2N2 benefit from Midlands Engine Transport Innovation, Medical Technologies & Future Food Processing Accelerators,
- secure investment in facilities, such as the establishment of a new Medical Technologies Innovation Facility at NTU's Clifton campus (pictured),
- build on existing Enabling Innovation programme, to create a more cohesive suite of easily accessible products,
- introduce a programme of support to help businesses adopt new technologies, building on Digital Business Growth, and with the focus on the four D2N2 specialisms,
- create an Industry 4.0 demonstrator, building on automated assembly demonstrator in Aerospace Technology Centre,

Supporting our major manufacturers and other anchor businesses…

Our major manufacturing businesses – e.g. Rolls-Royce, Toyota and Bombardier - are a significant asset and differentiator. They are world-class businesses, using leading-edge technologies. Their operations are based in and around Derby (although Rolls-Royce also has a site in Hucknall) but they have supply chains across D2N2. They are major local employers with strong roots in the local economy: with extensive capital assets locally; making a significant contribution to D2N2's GVA; and contributing to and benefiting from local infrastructure. Rolls- Royce especially is a key player in the local economy as it has its HQ in D2N2, has significant research capability in the area and has particularly strong economic and political connections nationally and internationally.

Recognising that in a global economy capital is mobile, we need to ensure that D2N2 economy has the conditions and asset base that compels these businesses to continue to invest locally and that heightens their sense of belonging – in terms of the quality of skills supply, transport connections and supply chains.

It is also important to recognise that other major businesses in the area provide an 'anchor' role for local communities and for local supply chains and they need to be engaged in the roll-out of the strategy. Being exposed to global challenges and opportunities, our major manufacturers and anchor businesses operate in a dynamic environment where decisions can have significant local implications, such as the global re-structuring announced by Rolls Royce on 14th June 2018 which is expected to lead to a reduction of around 4,600 roles, predominantly in the UK and particularly in Derby, taking place alongside a £150m investment in new and existing Civil Aerospace

Supporting our major manufacturers and other anchor businesses

We will embed and consolidate the presence of our major manufacturers and other anchor businesses in the local economy by:

- Continuing to recognise the importance of advanced manufacturing to the D2N2 economy.
- Building a deeper strategic relationship with them.
- Addressing barriers to their continued investment.
- Building on and enhancing their collaboration with our universities.
- Encouraging further R&D activities to be undertaken in D2N2 and potential re-shoring.
- Helping develop the competitiveness of their supply chains, building on existing local and national initiatives.

	Priority Science and Innovation Sectors			*Priority Opportunity Sectors*						*High Employment Sectors*	
Priority Sectors	**Transport Equipment Manufacturing**	**Food & Drink Manufacturing**	**Life Sciences**	**Creative & Digital**	**Visitor Economy**	**Logistics & Ecommerce**	**Construction**	**Mineral Products**	**Professional & Business Services**	**Retail**	**Health & Social Care**
Characteristics	Large, highly specialised, growing & productive. Knowledge assets. Major OEMs	Specialised and forecast to intensify. Employment growth. Average productivity. Knowledge assets	Small but specialised & productive. Growth prospects. Knowledge assets	Rapid growth sector. Not specialised in D2N2. Digital highly productive.	Large employer. Low productivity but potential for growth. Not specialised in D2N2. Cultural assets	Large, specialised, growing. Average productivity but more productive in D2N2 than UK	Large, growing. Future growth. Average productivity & specialisation. Knowledge assets.	Locally specialised. Local supply chains. Low employment. Strategic resource for growth.	Small, but productive and growing. Data analytics assets.	High employment, low productivity More productive in D2N2 than UK	High employment, low productivity. Large growth predicted
Key Actions	Supply chain support	Provision of high standard premises	Provision of high standard premises	Provision of high standard premises	Raise value of visitor spend	Availability of sites	Technical skills	Transport infrastructure	Provision of high standard premises	Digital skills & connectivity	Digital skills & connectivity
	Skills for digital manufacturing	Export support	Growth investment	Growth investment	Digital skills & connectivity	Technical skills	Digitalisation & MMC	Technical skills	Inward investment	Innovation adoption	Innovation adoption
	Link clusters to world class research	Link clusters to world class research	Link clusters to world class research	Leadership & management	International marketing & connectivity, HS2		HS2 construction	HS2 construction	HS2 connectivity	Town and City Centres	
				Technical skills	Accommodation						

Cross Sector Priorities			
Science and Innovation: Enabling Competencies	**Advanced Manufacturing & Engineering** **Digital Technologies & Data** **Energy & Low-Carbon Technologies** **Systems Integration**	To exploit our competitive advantages, we will work with business, universities and partners to:	1. increase productivity, via exploitation and adoption of new technologies and processes 2. Support development and commercialisation of innovative products, goods and services 3. Increase industry and research base links, to accelerate commercialisation and innovation.
Business Support Focus	Repurpose D2N2 Growth Hub and support programmes to focus on productivity improvement across sectors through access to investment, digitalisation, innovation, leadership and management, high growth, exporting, innovation and skills support.		

'Middle Band' Businesses with productivity around average
High-Growth & Potential Scale-ups, potential scale-ups, and businesses with ambition to grow
Major Manufacturers and other 'Anchor' Businesses Rolls-Royce, Toyota, Bombardier, Boots, Experian, etch

Priorities	Actions
1)Business Productivity	• Repurpose D2N2 Growth Hub to have a specific focus on business productivity improvement • Market analysis to identify businesses in 'middle band' of productivity performance • Develop diagnostic tool to benchmark business productivity performance • Develop coaching/mentoring programme for business, based on drivers of productivity.
2)Business Growth	• Continue and enhance support for productive Scale-up businesses with high-growth potential • Help our major manufacturing primes to develop the competitiveness of their local supply chains, building on existing initiatives • Support the successful implementation of the Midlands Engine Investment Fund, and enhance as necessary with locally flexible investment and grant funds to support growth • Grow exports to all markets, building on our existing strong international connections, including in China and India • Through place marketing, attract inward investment in key sectors, re-shore supply chains, and encourage growth in the R&D capabilities of our major innovation-led corporates.

3)Business Support	• Enhance and sustain the D2N2 Growth Hub as the gateway to SMEs:
	  • repurposed to reflect the SEP's revised strategic objectives
	  recognised as the access point for all support to business, including skills and innovation
	  • service to be driven by the needs of businesses.
	• Review the range of business support options encompassing the drivers of productivity to ensure that they meet the needs of the target markets; including leadership & management, access to finance and routes to market
	• Enable firms to exploit the opportunities of HS2.

4) Driving Innovation	• Core innovation-led sectors to develop Productivity & Growth Plans, including proposals for exploiting opportunities associated with the Grand Challenges • Become the UK's transport innovation test bed, securing national centre of excellence in Next Generation Transport • Secure national recognition as UK life sciences and creative & digital centre • Maximise D2N2 benefit from Midlands Engine Transport Innovation, Medical Technologies & • Future Food Processing Accelerators Secure investment in facilities, such as the establishment of a new Medical Technologies Innovation Facility at NTU's Clifton campus • Build on Enabling Innovation programme, to create a more cohesive suite of easily accessible products • Introduce a programme of support to help businesses adopt new technologies, building on Digital Growth Programme Bring forward the Midlands Nuclear Advanced Manufacturing Research Centre as part of the Derby Science and Innovation Campus on Infinity Park EZ • Creation of an Industry 4.0 demonstrator, building on automated assembly demonstrator in Aerospace Technology Centre.

Theme 2 - SKILLS & KNOWLEDGE FOR THE FUTURE

Ambition, by 2030 we will;	...have a healthy, productive, well qualified and well rewarded workforce supported by world class education and training system, providing the skills needed by the new, more productive, economy. We will have eliminated our workforce skills deficit with the rest of the UK. Everyone in every community in D2N2 will have the opportunity to participate in the economy and equitably share the benefits of productive and clean economic growth. Using the dividends of greater prosperity, we will enjoy a rich and varied cultural and leisure offer. Our children will attend excellent schools, colleges and universities
Investment Priorities	(5) Future Workforce: Equip people of all ages (and particularly young people) with the skills and knowledge they need to make informed careers choices and to access jobs providing businesses with a stronger pool of talent.
	(6) Inclusive Workforce: Support those who are furthest away from the labour market to re-engage and move towards and into work; and those in work to move up the escalator to more productive, better-paid jobs of the future.
	(7) Planning for future skills needs: Build an intelligent, evidence-based local skills ecosystem that is capable of matching the skills of the population with the needs of business.
Innovation Investment Priorities	(8) Skilled and Productive Workforce: Enable businesses to find the talent they need, take advantage of the core specialist capabilities in the knowledge base and equip their workforce with the skills of the future.

Closing the gap between the skills of D2N2 people and the needs of D2N2 employers is essential if we are to achieve our vision of a productive, prosperous and inclusive economy.

This is our biggest challenge, given our starting position of a relatively low skills base and the difficulty in effecting change within the current skills system. Looking ahead to the next 10-15 years, slower growth in the working age population, potential loss of labour as a result of BREXIT, and significant technology-driven changes in the nature of work (and labour demand in some occupations), are likely to require increased adaptability and re-skilling by people who are already working; as well as maximising the potential of young people entering the labour market. Making this happen (across occupations and sectors) will be important both to social mobility and long-term productivity.

We need to drive up productivity in all sectors, so that jobs at all levels support progression and become better paid. While many jobs will disappear as result of automation, improved productivity will strengthen business competitiveness, stimulate growth and enable the economy to sustain high levels of employment. The key for success in D2N2 will be to enable our workers, at all age and skills levels, to progress and move up into the more productive, better paid jobs in the transformed local economy.

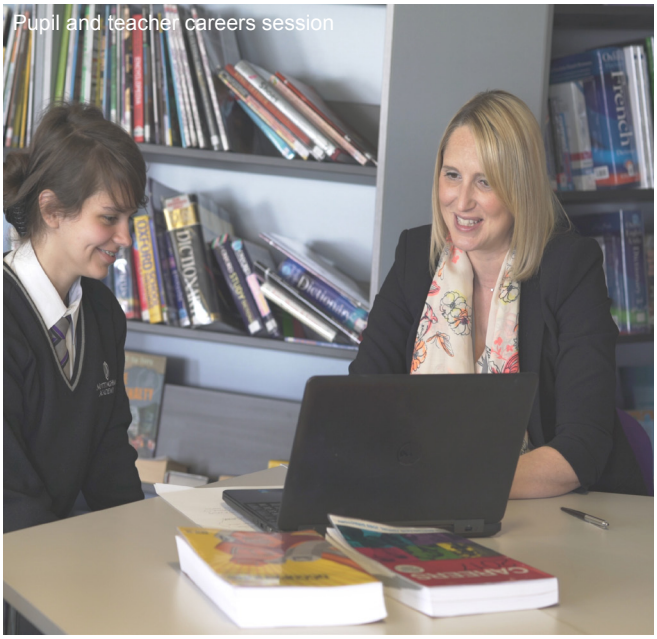
In delivering this we can't forget that we continue to face major challenges in ensuring all of our residents are able to benefit from the growth and opportunity being created. Despite unemployment being low, there are still communities and places where unemployment and economic inactivity remains high, with a growing number identified as having significant or multiple barriers to work.

Current support for unemployed and economically inactive residents is disjointed, often short term and generic in nature. We need a more targeted approach that is integrated with local provision, is specific to the needs of individuals and also supports employers to grow and sustain a more diverse workforce.

This will require action around:

- Future Workforce - Equipping people of all ages (and particularly young people) with the skills and knowledge they need to make informed career choices and to access jobs.
- Inclusive Workforce – Supporting individuals who are furthest away from the labour market to re-engage and move towards and into work.
- Skilled and Productive Workforce – Enabling businesses to find the talent they need and equip their workforce with the skills of the future.
- Planning for future skills needs - Building an intelligent, evidence-based local skills ecosystem capable of matching the skills of the population with the needs of business.

A solid foundation of employment and skills support has been put in place in the D2N2 area over the past 5 years, particularly around employability.and it's important to build on that. We now need to take our model to a new level, with skills and employment partners committed to playing their part in joined-up delivery and driving forward a long term, strategic approach.


Pupil and teacher careers session

Future Workforce - Connecting people to future opportunities.

Educational attainment at 16, identified by the CBI as a key driver of regional productivity, is an area of marked under-performance in some parts of the D2N2 area.

Poor attainment reduces the flow of higher skilled people into the market, and with marked under-performance in many parts of D2N2, we have too many young people not realising their potential.

Raising Attainment and Social Mobility

We will work with DfE to explore longer term options for enabling our schools to raise attainment levels, as new T-Levels are introduced; learning from the Derby Opportunity Area, a pilot project to broaden the horizons of young people struggling with social mobility.

Employer feedback highlights issues with 'work-readiness', employability skills and lack of awareness of job and careers opportunities (at all ages).
Poor or a lack of careers advice limits career aspirations, particularly for those living in areas of deprivation and who often don't have role models to aspire to.

Too few young people have meaningful experiences with employers. Research from the Education and Employers Taskforce shows young people who have four or more timely encounters with employers are 86% less likely to be NEET (Not in Education, Employment, or Training)
and that they will earn up to 22% more during their career.

Raising Aspirations

Our immediate priority in working with young people is to work with businesses, schools and partners to raise the aspirations of the future workforce, by enhancing their careers advice and employability skills.

Our ambition is for all D2N2 area schools and colleges to be working towards the Gatsby Benchmarks for excellence in careers guidance; to embed the value of careers and employability skills within the education system, and to improve connectivity between our employers and their future workforce.

We have made a good start with 146 schools and colleges taking up funding through our ESF funded Careers Local programmeto support employability activity. We want to build upon this through our future funding calls to target resources to continue to increase careers and employability support available to young people.

Our D2N2 Enterprise Advisor Network, co-funded by the Careers & Enterprise Company (CEC), currently supports engagement with employers but covers only 55% of secondary schools against a national CEC target of 100%; meaning not enough young people are accessing the support they need.

Our aim is to provide a universal offer to all schools and colleges to access Enterprise Advisor support through our partnership with the CEC; and to raise the importance of employability skills and linkages with local employers across all educational settings, including universities.

4 CAREERS INSPIRATION FOR OUR FUTURE WORKFORCE

Inspire young people to make well informed choices about their education, training and careers in the future economy; by delivering a programme of 'careers inspiration'; which sees all mainstream secondary schools and Further Education (FE) providers in the D2N2 area achieve all eight 'Gatsby Benchmarks'.

Although D2N2 attracts large numbers of university students from outside the area, we are not so successful in retaining them, despite the presence of world-class employers. This is partly a consequence of overall demand. To retain more graduates, we need to grow a larger stock of 'graduate jobs'; and the focus of this Plan, on creating a higher-value economy through increased productivity and so expanding the business stock, is

Initiatives by the universities to strengthen their students' local connections while they are here, and to involve them with local businesses –through placements, and in general to make them aware of employment opportunities in the local economy – will continue to be important in encouraging retention.

Alongside the upskilling of our existing workforce, it will be important that the D2N2 economy continues to attract and retain the best talent from elsewhere, adding to the pool of high-skilled labour in the area.

We need to address the current skills mismatch in D2N2 (particularly in relation to technical skills) and to plan for the skills required in the digital age and in a high-value economy. We need to recognise that the young people entering the global market over the next ten years are the first generation of'digital natives'; people who have grown up with digital technology and who are comfortable using it for all manner of everyday tasks. It will be older workers who will need to adapt and re-skill, to remain competitive in the labour market. This new generation will also have a very different experience of work to their parents; with, it's anticipated, up to five careers, 17 jobs and 15 homes over a working lifetime.

Career Pathways

Expected changes as digitalisation in the labour market increases, and the reality that replacement demand outstrips new entrants into the market, means those already in the workforce will need the skills, resilience and guidance to make numerous changes during their working lifes. We will work with partners to promote careers management support being available to people of all ages, both in and out of work



Education Secetary Damian Hinds MP visiting Nottinghamshire's Uniper Engineering Academy in March 2018.

HS2 and Skills

Implementation of the East Midlands HS2 Growth Strategy is predicted to create up to 74,000 more jobs above the current baseline projection, with the potential for this to rise to an additional 90,000, which will impact on the East Midlands labour market.

Responding to the impact of HS2 is not just about the skills requirements of building and operating a railway but ensuring the wider D2N2 economy has the right skills mix for the demands of the future, HS2 influenced, economy. With the 'eastern Lleg' of HS2 not due for completion until 2033, a key part of our skills work on HS2 will be, working alongside HS2 Ltd and the Careers & Enterprise Company, to engage effectively with local schools to inform the education and careers choices of young people.

HS2 Skills and Employability Strategic Framework

We will work with partners to lead the implementation of the HS2 Skills and Employability Strategic Framework in D2N2, with its focus on five key areas of activity:

- inspiring young people
- building further education capacity
- harnessing the power of our universities
- upport for individuals
- ensuring our businesses are 'HS2 ready'.

Inclusive Workforce - Leading a shift in culture and narrative to enable prosperity for all

Although unemployment is at an all-time low, people in receipt of out of work benefits accounts for 12% of the D2N2 population; higher than national figures. Poor health in particular is a major barrier to employment in D2N2. With the numbers of young people joining the labour market reducing, it is increasingly important that those able to work have the skills and aspirations to enable them to do so.

Evidence suggests that generic employment support programmes are less effective for those experiencing more significant barriers to employment. We will seek to influence a shift in investment towards more targeted and intensive services that meet the needs of both individuals and employers.

We will build on our learning to improve availability of integrated pathways toward employment for specific groups, which links with locally delivered support for more complex barriers they may face.

Conversely, job seekers find it complex and difficult to navigate the huge amount of employment support available. One of the goals of D2N2 is to try to simplify the journey; making clearer pathways for inclusion and progression, and ultimately providing a more direct route into work.

Employers are vital to ensuring shared prosperity and opportunity. Our ambition is to engage employers in a win:win inclusion scenario, where disadvantaged people benefit from economic opportunities and employers address their skills and workforce challenges. We will directly support employers to make the changes needed whilst creating a local narrative which encourages, supports and values the skills and contribution of everyone to our local economy.

A range of local programmes are in place to support employment and skills in D2N2, most of them providing support to those who face the biggest challenges in securing employment. We need to learn from their evaluation and build on those that have the greatest impact.

Many people across the D2N2 area have no qualifications. For many this will potentially mean limited opportunities for future employment. We will work to engage more people in learning and ensure basic skills needs are met.

We know the relationship between health and economic prosperity is complex but it is clear. Public Health England identifies that poor health reduces productivity, whereas good health contributes to high productivity and successful enterprises. We also know that 'good work' is good for physical and mental health, and poor working conditions can lead to ill health.

5 INCLUSION & PROGRESSION IN THE LABOUR MARKET

Deliver joined-up targeted support to get people who are seeking employment – but who have multiple, complex or deep barriers to getting a job – into sustainable employment. Support individuals' career progression through raising their skills levels, to meet changing requirements of business.

Skilled and Productive Workforce - Supplying the skills for a successful D2N2 economy

The growth of digitalisation and automation will see not just change the way in which jobs are delivered, but also the demand for particular occupations. Jobs growth will be in higher skilled occupations, with those requiring low skill levels most at risk.
Employers across D2N2 are reporting difficulties in recruiting at all levels with certain sectors such as health and social care, and technical and digital sectors, struggling most. The situation is expected to worsen as a result of Brexit.

Business leadership and management are recognised as important drivers of productivityand this will be a key element of our business support portfolio. There is a need to substantially improve business access to skills support, and to support business productivity improvements; ensuring these aredelive red as an integral part of the Growth Hub service, based on the needs of individual businesses.

6 SKILLS AND LEADERSHIP FOR PRODUCTIVITY GROWTH

Support businesses in accessing the skilled people they need to improve their productivity; through a stronger D2N2 Growth Hub, enhanced leadership and management skills, the skills to adapt to digitalisation in the workplace, better engagement with the knowledge and assets in our higher and further education institutions, and increased take up of apprenticeships (particularly at higher and graduate levels).

With skills levels in the D2N2 area below the national average, we need to create a culture of lifelong learning; encouraging individuals to continue learning throughout their working career, and businesses to lead in taking a proactive approach and in looking ahead to define current and future skills needs to create a responsive and strategic skills ecosystem.

This Plan will support businesses to implement higher value processes and new technologies to drive up productivity. This will in turn drive demand for higher level skills and promote graduate retention. We will need to increase the skills and adaptability of the workforce; in particular where the existing workforce is at risk of being negatively impacted by technological advances, as existing jobs change.

Support for re-skilling (particularly in relation to advanced digital skills) is highlighted as a priority within the Industrial Strategy, through the introduction of the National Retraining Scheme, and within the proposals contained within the Made Smarter industrial digitalisation review. We will seek to ensure that existing workers and employers are supported to adapt to new technologies, processes and working practices and employers have ready access to the skills support that they need.

Skills and the Growth Hub

We will target existing and future resources to ensure there is a clearly understood skills offer as part of the Growth Hub service; one which simplifies the skills system and supports employers to target investment at workforce development needs.

Where we have specific sector skills challenges, such as digital skills, we will target resources and activity to develop specific interventions. We will also ensure there is a robust skills element to all of our sector productivity and growth plans.

2c PRODUCTIVITY FOCUS FOR THE GROWTH HUB

Strengthen the D2N2 Growth Hub to provide a single point where employers can access employment, and skills information and support.

Apprenticeships can play a crucial role in driving up productivity. hile take up has dipped both nationally and locally, we need to do more to encourage businesses to consider taking on apprentices into their workforce. Our aim will be to unlock the potential to support local businesses through the Apprenticeship Levy.

It will be important to understand the scope of the new National Retraining Scheme before introducing any new local provision, but there is an opportunity to build on the D2N2 Skills programme for workforce development.

Planning for future skills needs - Building the structure to drive a dynamic skills ecosystem

Achieving the ambitions of this strategy for people, skills and business in the D2N2 area requires a robust and informed governance, engagement and delivery system which drives progress through:

- data and LMI (Labour Market Information) analysis,
- active engagement of all stakeholders,
- influencing use of and levering in investment,
- sharing success and learning,
- lobbying and shaping future policy at all levels.

Apprenticeships can play a crucial role in driving up productivity. hile take up has dipped both nationally and locally, we need to do more to encourage businesses to consider taking on apprentices into their workforce. Our aim will be to unlock the potential to support local businesses through the Apprenticeship Levy.

A Dynamic Skills System

In order to bring together the supply and demand for skills, we will work with partners to promote: access to high-quality labour market information; effective employer engagement in order to respond to specific short-term needs and ensure educational courses meet longer-term needs; skills providers' commitment to offering a mix of qualifications which align with local labour market demands; careers advice enableing young people and adults to make the best career and training decisions in order to access the labour market, and progress.

It will be important to understand the scope of the new National Retraining Scheme before introducing any new local provision, but there is an opportunity to build on the D2N2 Skills programme for workforce development.

We also need to develop the capacity of the skills partnership within D2N2 to oversee and effect change, building on the work of the D2N2 Skills Commission. The Industrial Strategy signalled the establishment of LEP Skills Advisory Panels to bring skills providers and employers together, to determine local growth priorities and analyse future supply and demand. These panels are to have a "real and meaningful influence" over post-16 education and training.

The SEP identifies a number of sectors which are crucial to the future growth of the D2N2 economy. In addition, we will ensure a continual eye to the future, so we are able to respond swiftly to emerging markets and trends; maximising new opportunities for D2N2 such as HS2. We will work with our partners to ensure that the skills system is offering the right provision to meet the future growth needs of our economy.

Conversely we will seek to influence the supply of skills and the skills ecosystem which includes schools, Further Education, Higher Education, Adult and Community Learning, and private and voluntary providers, by facilitating greater collaboration with employers, to meet their skills needs.

We will work with Government to establish the D2N2 Skills Advisory Panel, taking on this more substantive role; and giving us the potential to create a single, more strategic and integrated post-16 skills offer by devolving post-16 skills funding. In the meantime we will work with local skills providers and national skills bodies to influence future local provision.



The Chesterfield & North Derbyshire Employability and Skills Conference for skills sector representatives is held annually

Priorities	Actions
5) Future Workforce	• Influence provision of a co-ordinated, all age careers offer informed by labour market intelligence. • Ensure all mainstream secondary schools and FE providers in D2N2 have access to the support required to achieve against all eight Gatsby Benchmarks. • Work collaboratively to investigate and secure the use of ESF or other funding streams to further grow the CEC network;to support roll out of employability support, careers guidance and the Gatsby Benchmarks to those outside mainstream school /FE e.g: SEND learners, returners to education, graduates and the home-educated. • Continue to seek to co-commission new careers-related activity funded through central government, particularly via CEC, informed by local knowledge of the labour market and current levels of provision. • Extend careers work into primary schools, linking to initiatives such as the HS2 careers programme. • Develop skills pathways and other support materials to enable careers decisions and upskilling. • Learn from the Derby Opportunity Area and explore scope for expanding its approach, and applying the learning where it demonstrates success. • Work alongside our HE establishments, employers and supporting partners (for example, the Derbyshire and Nottinghamshire Collaborative Outreach Project or DANCOP) to promote HE as a viable option, with a view to creating a 'grow our own' culture of graduates within our local economy. • Work alongside local and national stakeholders in the development of T-Levels to ensure successful roll-out across the D2N2 area.
6) Inclusive Workforce	• Continue to develop our relationships with those services who support individuals with barriers to employment (e.g. Public Health), and develop an integrated and joined up offer of support for those individuals who want and wish to seek employment. • Utilise ESF to commission activity which targets specific groups and provides coherent pathways towards work and tailored to local areas as needed, valuing user-led input wherever possible. • Work alongside Local Authorities to identify those young people who are or are at risk of becoming NEET, and commission and co-ordinate programmes to move them into education, employment and training; with particular focus on those from vulnerable groups. • Invest in a Community Grants programme to work with local community providers; to ensure specialist support is available at community level for individuals with varied and complex need, across and outside of other provision. • Support the development of an all age careers service and ensure it is promoted and accessible to people outside mainstream provision. • Support employers to engage with and value inclusivity and adapt their HR practices to enable this. • Work specifically with partners (e.g. DWP Disability Confident, Fuller Working Lives and Timewise) and the Growth Hub to engage employers, and provide practical advice and support as to how they can recruit and retain individuals with health related conditions or other barriers to employment. • We will harness the learning from existing employment programmes and ensure a co-ordinated approach to maximising impact of future funding opportunities (e.g. ESF, Shared Prosperity Fund).

Priorities	Actions

7) Planning for Future Skills Needs	• Develop new D2N2 People and Skills governance, building on the existing D2N2 Skills Commission; providing local strategic leadership to ensure that future skills provision meets demand and acting as the voice to Government on local skills needs. This will be underpinned by a reinvigorated skills partnership involving FE colleges, universities, schools and employers; tasked with identifying future skills needs and joining up the local skills ecosystem.
	• Ensure the local skills ecosystem supports our skills-matching ambition, through:
	  • An effective and efficient approach to collecting, analysing and utilising accurate data on the labour market to underpin investment decisions and the development of our Local Industrial Strategy.
	  • Engaging employers to understand the D2N2 economies skills shortages and skills gaps, and which sectors and occupations are impacted most heavily.
	  Engaging with our FE/HE partners to ensure current and future provision meets the economic needs of our area.
	  • Shaping provision of readily accessible careers advice for people of all ages; reflecting identified local skills needs and supporting a shift in demand, and tracking its impact.
	  • Understanding careers pathways for people to progress through upskilling.
	  'Horizon scanning' to ensure we can maximise future opportunities such as HS2, Midlands Engine and the Shared Prosperity Fund.
	  • Identifying and levering future funding such as the Shared Prosperity Fund, devolved AEB and NCS, Midlands Engine and HS2 opportunities, and lobbying for devolved skills funding and greater local control.

8) Skilled and Productive Workforce	• Continue to commission ESF provision to meet local needs and opportunities.
	• Develop a D2N2 Apprenticeship Growth Plan that will work towards ensuring:
	  • Effective use of the Levy within our area.
	  • Promotion of apprenticeships (at all levels) to employers
	  • Promotion of apprenticeships (at all levels) to residents.
	• Work with the East Midlands Apprenticeship Ambassador Network (EMAAN) and other partners to raise awareness and take up of apprenticeships, particularly at higher and graduate levels, through use of LMI and collaborative approaches with employers, the Growth Hub and local HE institutions.
	• Roll out programme to support for SMEs across sectors to enable their workforce to acquire the skills to adapt to digitalisation of the workplace.
	• Maximise D2N2 benefit from Midlands Skills Challenge Fund.
	• Work with D2N2 Growth Hub to develop a single point where employers can access employment and skills information, and support to meet needs.
	• Promote and support lifelong learning; working with stakeholders and delivery bodies to maximise opportunities across the area.
	• Ensure drivers of productivity (leadership and management, and digitalisation skills) are available and promoted to employers, with a focus on increasing productivity.

Theme 3 - Quality of Place

Ambition, by 2030 we will;	...travel efficiently, reliably, healthily and quickly to work and for leisure, taking advantage of excellent infrastructure and connectivity. We will be served by an airport with regular connections to key business destinations across the world, have the infrastructure and connections in place to exploit the unique possibilities of High Speed Rail and enjoy the benefits of full fibre broadband connectivity to every business and domestic address. Full 5G coverage will enable new forms of efficient transportation, including the use of increasingly connected and autonomous vehicles. We will enjoy a high quality natural and cultural environment with transformed high streets offering an attractive mix of retail, leisure and residential experiences. We will live in affordable and efficient homes in safe, healthy, inclusive and sustainable communities in vibrant cities, towns and villages.
Investment Priorities	(9) Infrastructure: Promote investment in our physical infrastructure to create a competitive advantage, support business & housing growth ambitions and enhance our natural environment.
	(10) High Speed 2 Growth: Exploit the transformational potential of HS2 to stimulate productive growth across D2N2.
	(11) Place Making & Marketing: Empower communities across D2N2 as great places to live, work, study and visit; and undertake compelling place-marketing in order to attract inward investment and talent to the area, and to drive up visitor spend.
Innovation Investment Priorities	(12) Connectivity: Strengthen our strong transport and digital connectivity to business and labour markets, enabling businesses and people to travel and communicate quickly and easily, and unlocking opportunities for growth. Explore innovative solutions to our mobility andconnectivity challenges.

The Best Business Location in Britain

Our location and the distinctive characteristics of the places which make up D2N2 are what make us unique. Overall quality of the place is fundamental to businesses' decisions to continue to invest or to relocate here. Our 'Deep Dive' review of productivity has highlighted the need for, amongst other factors, an enhanced infrastructure and market access for firms to help drive productivity growth.

Our position at the 'bridge' between the Midlands Engine and the Northern Powerhouse – and the once-in-a-generation, transformational potential of having the East Midlands HS2 hub at the heart of D2N2 – are opportunities we will exploit.

We have a complex economic geography, with distinctive assets and challenges. It encompasses the largely urban south, producing a significant proportion of the area's employment and GVA; the northern conurbations straddling the M1, comprising towns which have had to manage the transition from industries that have declined or disappeared; and the mainly rural east and west, both with important regional centres and outstanding environmental assets. All parts of the area on D2N2's borders are part of wider economic geographies extending into other LEP areas. There are significant disparities in economic fortunes across the area and within places.

In supporting and enhancing D2N2's 'quality of place' , as a great location to live, work and invest –the roles of local authorities as 'place makers', with statutory housing, planning and transport roles, will be fundamental to effective partnership working.

Collaboration within and beyond the area will be key to effective approaches to enhancing the quality of place in D2N2.

Active Collaboration to Enhance our Places.

This Plan and its approach to delivery recognises our area's distinct spatial characteristics. D2N2 will support the development of delivery plans at local level for our cities, counties and districts; and collaboration between them on areas of shared interests such as leveraging the complementary strengths of our cities through the Metro Strategy, or developing approaches to our market towns and rural areas to take advantages of synergies and scale. D2N2 will only succeed if all places within our area thrive, and we will continue to support active collaboration between places and partners within and beyond our borders to help bring this about; particularly working across the East Midlands region, and through Midlands Engine and Midlands Connect.

We will work with partners to promote comprehensive and planned approaches to high value developments on key sites, including supporting the recently announced Development Corporation to drive growth at Toton, East Midlands Airport and development at the Ratcliffe-on-Soar power station site.

Infrastructure for a Productive Economy

There has been good progress in unlocking investment in strategic sites and infrastructure over the past three years, though Local Growth Fund investment of some £250m – notably Infinity Park in Derby and MediCity in Nottingham, both in the Nottingham & Derby Enterprise Zone. We will build on this momentum, accelerating development on our Enterprise Zone and reinvesting the income in growth opportunities.

D2N2 Infrastructure Plan

We will bring forward a cohesive Infrastructure Plan containing a ten year programme to enable and accelerate investment (physical and digital), to support our ambitions for new business productivity and sustainable communities across D2N2.

We will identify the key infrastructure and locational requirements to strengthen our core innovation sector specialisms – e.g. Advanced Manufacturing in Derby, Life Sciences in Nottingham, and Logistics around East Midlands Airport and the Gateway Freight Terminal. We will support the implementation of the East Midlands Manufacturing Zone in North Derbyshire.

We will work with partners to bring forward a competitive offer of high quality business premises and land to support the formation and growth of high value industries across the D2N2 area, supporting appropriate growth in rural areas and towns, as well sustaining our cities as economic power-houses. This includes an escalator of accommodation from incubation and start-up premises, to high quality office space and manufacturing units in locations, with excellent transport connections.

7 WORLD CLASS INFRASTRUCTURE AND CONNECTIVITY

Secure investment to deliver the infrastructure necessary to achieve world class connectivity – and the provision of high quality sites, premises and homes – to create prosperous places across the D2N2 LEP area.



Aerial shot of official opening of Infinity Park Derby, in July 2016

Enterprise Zone

The Nottingham & Derby Enterprise Zone comprises three sites in Nottingham – the Alliance Boots Campus, the Beeston Business Park and Nottingham Science Park – and Infinity Park in Derby. Each site has a key role in supporting the implementation of the SEP, by providing employment space for the growth of productive firms and access to innovation support. The Alliance Boots site consists of 113 hectares and the vision is to create a UK centre for innovation in health beauty and wellness in Nottingham. Infinity Park Derby will be home to a Science and Innovation Campus, with specific support for advanced manufacturing. The Markham Vale Enterprise Zone, near Bolsover, has attracted a number of employers contributing to local growth. Although it is a Sheffield City Region designated Enterprise Zone, D2N2 has invested here, alongside Sheffield City Region LEP, to realise its benefits.

Bringing forward the benefits of our Enterprise Zone sites will continue to be a priority for investment.

Delivering Growth on our Enterprise Zone Sites.

We will support the development of the D2N2 Enterprise Zone sites, generating income for re-investment against our economic priorities.

Enhancing our excellent transport and digital connectivity

Enhancing our excellent transport and digital connectivity.

D2N2's central location enables us to draw from wide labour markets and supply chains. However, while our transport connectivity is good in parts, and will be significantly enhanced when HS2 is operational, it is not as good as it should be; either strategically (e.g. to the West Midlands and North West) or locally. Having good connectivity to enable easy access to and communications with labour, customers and suppliers is identified by the CBI as one of the key drivers of productivity. Enhancements to shorter distance commuting infrastructure will remain important alongside strategic enhancements to regional, national and international links.

We will continue to work with partners in Midlands Connect to progress the medium-term strategic investments to improve transport connectivity across the Midlands, with the aim of supporting the Midlands, with the aim of supporting the productivity goals of the Midlands Engine strategy; making the most of the assets and opportunities we share with our neighbours. Priorities include improvements from Nottingham and Derby, to Mansfield, Chesterfield and Sheffield, and along the A46 Corridor. The Midlands Connect strategy identifies Derby and Nottingham as a joint 'strategic economic hub', with scope for improved connectivity between them. We will also work with Transport for the North, given the importance of the strong connectivity north and west for the north of the D2N2 area.

Delivering Planned Transport Improvements
We will work with partners to deliver existing plans for improvements in D2N2's major road and rail networks, including measures to alleviate congestion to meet existing demand and to support ambitions for growth, including:

- congestion management A52 at Pride Park
- Southern Growth Corridor in Nottingham
- Gedling Access Road
- A61 corridor improvements, including Whittington
- Moor roundabout in Chesterfield
  A614 Corridor Improvements
- Newark Southern Link Road
- Woodville-Swadlincote link road
- Midland Mainline
- improvements to Trent Junction and East Coast mainline
- Castle Line service enhancements
- Robin Hood Line extension.

The A46 cuts across the East and West Midlands, from the Severn to the Humber, and is a regional priority to unlock major housing and economic development. In the north part of the D2N2 area, the A628 provides a key Trans-Pennine link between Manchester and Sheffield.

A46 Corridor and Newark

D2N2 will work with TfEM and Midlands Connect to progress significant investment into transport infrastructure near Newark. A Midlands Connect Strategic Study will establish how improvements in key areas could support job growth and housing, and relieve congestion across the whole corridor. With Midlands Connect we will seek funding for an upgrade to the A46 around Newark for completion by 2025, removing a major bottleneck on the road network and helping to facilitate major housing and employment development within the town. The A46 improvement is closely linked to the complex rail infrastructure in Newark. Major investment is needed to reduce conflicts between fast East Coast Main Line and slower Lincoln-Nottingham traffic.

International Connectivity

East Midlands Airport is a major international gateway and economic asset, generating £268million of GVA. It transports over 4.2million passengers per year to more than 90 destinations. It is second only to Heathrow for flown cargo, handling more than 320,000 tonnes of cargo per year. The airport's plans to expand will be key to enhancing D2N2 and the wider East Midlands as a business location. Currently, the airport plans to more than double passenger numbers to ten million per year and almost treble the amount of freight to a million tonnes by around 2030 to 2035, potentially creating an additional 7,000 jobs on site. Together with significant employment creation at Segro Logistics Park / East Midlands Gateway Freight Interchange, the development of the airport will increase transport movements in the area. The Gateway development has secured a comprehensive package of strategic and local highway improvements, which will address existing congestion issues as well as future growth; although dealing with wider pressures on the M1 corridor will still require a long-term strategic solution.

Access to airports in other regions remains crucial for businesses and residents in some parts of D2N2. Manchester Airport is the third busiest UK airport, carrying 27m passengers a year, and has a key relationship with parts of the north of D2N2. It has recently benefited from improved access as a result of the A6 airport link road.

A Step Change in City and Airport Connectivity

D2N2 LEP will work with partners to support the implementation of ambitious improvements for transport connectivity between the cities of Nottingham and Derby, and between the two cities and East Midlands Airport.

There is scope to significantly further improve access to East Midlands Airport, particularly by public transport. In the short term, there are plans to improve rail services to East Midlands Parkway Station, combined with better bus links between the station and the airport. Over the longer term, there is potential to develop an innovative and transformational public transport link to the East Midlands Hub Station at Toton.

Transformational Potential of HS2

The East Midlands HS2 Growth Strategy sets out a vision for how HS2 connectivity and assets will deliver some £4bn GVA in the region over the next 25 years, creating:

- job opportunities
- inward investment
- housing growth
- more trains & quicker journey times to key destinations
- better local transport connections

and enhancing towns and cities across the region. The two regional 'HS2 growth zones' are both in D2N2. D2N2 will work with partners to support the Housing Infrastructure Fund investment in infrastructure, to sustainably manage housing growth arising from HS2 through a network of Garden Villages.

The East Midlands Hub Growth Zone contains the HS2 Hub Station at Toton in Nottinghamshire, which will be the best connected station on the high speed network outside London.

The recently announced Development Corporation for the East Midlands (through the Midlands Engine initiative) brings a once-in-a-generation opportunity to drive growth across LEP areas, with D2N2 at its heart. The HS2 Hub Station at Toton sits at the epicentre of a nationally significant network of development. To capitalise on this opportunity, we will work with partners to create the 'Toton Innovation Campus'; which will bring the region's world leading businesses, universities and research institutions together. The Campus – capable of delivering up to 11,000 high-quality jobs, 5,000 homes and a range of leisure opportunities – will deliver a truly transformational development, offering a substantial return to the UK economy.

In addition to Toton's Innovation Campus and network of garden villages, there are exciting linked developments at:

Ratcliffe-on-Soar power station in Nottinghamshire – Decommissioning of a major coal-fired power station offers extensive development opportunities and innovations in energy supply.

East Midlands Airport in Leicestershire –It has ambitious plans to triple its cargo operation to a million tonnes a year by 2040, generating 11,000 new jobs and economic growth across the region.

It will be important to link the Toton Hub station into national, regional and local transport networks. This will relieve existing congestion, spread the benefits of HS2 to towns and cities across the D2N2 area; as well as linking to East Midlands Airport, the planned rail freight interchange nearby, and other strategic development sites. The locally led development corporation will release significant added value, greater certainty of delivery, and real benefits for communities and businesses in the region.

The HS2 infrastructure maintenance depot planned for Staveley, and the ability to serve Chesterfield with high speed trains, will have a transformational impact on the Derbyshire economy. The Northern Derbyshire Growth Zone is centred around the station in Chesterfield and the planned Staveley depot, enhancing Chesterfield's role as a gateway to the Peak District and accelerating the regeneration of the Staveley corridor and key surrounding sites. We will work with local partners to deliver the Northern Growth Zone and to promote effective access to the HS2 Western leg, where appropriate.

Accelerating the benefits of HS2

While the HS2 line is not scheduled to be opened until after the period of this Plan, we will work with partners to accelerate the detailed planning now in order to realise the full potential of the opportunity through an agreed programme of works, to implement the East Midlands HS2 Growth Strategy.

8 HS2 – CONNECTIVITY, SUPPLY CHAIN, SKILLS AND PEOPLE

Key Action 8: HS2 – Connectivity, supply chain, skills and people Implement the bold yet pragmatic vision for economic growth: HS2 Growth Strategy report, by working with partners on an agreed programme of activity; including enhanced business support, capital investment in infrastructure, and long terms skills and careers action.

Enhanced Rail Connectivity

Rail connectivity is a key element of sustainable transport networks, which can support economic growth. We will work with Transport for the East Midlands (TfEM) and Midlands Connect to promote strategic investment in rail infrastructure to enhance, local, national and international connectivity in addition to the implementation of HS2. The D2N2 Infrastructure Strategy will identify a programme of investments.

Key priorities will include;

Main lines Fit For the 21st Century

The long-term transformation of HS2 must go hand-in-hand with investment in the Midland Main Line (MML). D2N2 will work with TfEM and Midlands Connect to promote electrification, line-speed improvements, enhancements to rolling stock and services, and increased freight capacity. We will work with partners to promote service improvements on the East Coast Main Line.
We will also work with partners at Midlands Connect and TfEM to secure a link between HS2 and the Midland Main Line which is operational for the start of HS2, allowing HS2 classic compatible trains to link the East Midlands with Northern Powerhouse Rail.

Midlands Rail Hub

The Midlands Rail Hub is Midlands Connect's flagship plan to future-proof the Midlands' rail network for generations to come. D2N2 will support Midlands Connect to secure the necessary resources to implement the Hub's plans, to enhance rail connectivity between the East and West Midlands. Planned improvements will allow 1.6million more people in the Midlands to reach its biggest towns and cities within an hour, bringing east and west closer together. The Rail Hub will support an extra £649million of economic growth and investment annually, by enabling faster and more frequent journeys across the Midlands, and spreading easy access to HS2 services. The Rail Hub can achieve 24 extra trains every hour, 12 in each direction, doubling the number of services and significantly improving journey times. Linking the Midlands' primary economic centres and international gateways with regular direct services will transform east-west connectivity, supporting the growth of more than 100,000 planned new jobs.

The Rail Hub would create space for an extra 36 freight paths a day, carrying £22billion worth of goods every year;and provide for two extra trains per hour between Birmingham and Derby and Birmingham and Nottingham, and an extra train between Lincoln and Nottingham.

Excellent Local Rail Services

Improvements to local rail connectivity and services give employers access to a larger workforce and communities better access to employment opportunities. The creation of new, or opening up of closed, lines with new stations and terminals can unlock areas for new housing growth, improve accessibility for existing settlements and create opportunities for business that can make use of rail. D2N2, working with Greater Lincolnshire LEP has invested funds to enhance services on the Castle Line and will consider further rail investments to promote long term productivity and inclusive growth. D2N2 will continue to work with local partners to develop plans to extend the successful Robin Hood Line, to serve communities in Nottinghamshire affected by recent colliery closures. We will further work with partners to promote investment in Trent Junction, which remains key to capacity and service improvements across the East Midlands.

D2N2 will set out its local rail investment priorities in its long term Infrastructure Plan.

Digital Connectivity

Digital Derbyshire and Better Broadband for Nottinghamshire have now promoted access to superfast broadband to over 92% of premises, and plan to achieve 98% coverage by the end of 2018. It will be important to be proactive in planning for the introduction of the next generation digital connectivity to ensure that we are able to stay ahead of the game.

Currently, BT plans to implement full fibre connectivity to every business and residential premise in the UK by 2030. However, this will not be implemented everywhere at the same time.

Enhanced Digital Connectivity

D2N2 and partners will work together to promote a coherent approach to exploiting 5G connectivity to secure Government investment, and work to accelerate the roll-out of fibre connectivity, to ensure the D2N2 area remains a productive and competitive business location.

The promise of 5G connectivity is that it will revolutionise wireless digital connectivity in the D2N2 area, and support the roll-out of incrementally more connected and autonomous vehicles, in which D2N2 has research capability, and transport management systems. D2N2 will work with partners to secure funding for 5G roll-out at the earliest opportunity.

Housing

Since 2011, D2N2's dwelling stock has increased by 2.6%, compared to 3.3% for the UK as a whole. The ratio of median house price to median annual salary is increasing but is slightly below pre-recession levels, and significantly lower than England's average. Almost all of the dwelling stock increase in recent years has been outside the two cities.

In England as a whole 2017/18 represented a ten year high in house building completions, a trend mirrored in D2N2, where there were an additional 8,308 dwellings completed in 2017/18. This exceeds our estimated local housing need of 7,589 dwellings. Local authorities have key statutory housing and planning roles, not only affecting local housing supply but the overall quality of places within D2N2. In consultation, local authorities within the D2N2 area were positive about working together to help deliver planned housing growth, creating sustainable and economically dynamic communities. To date there has been positive collective working between public bodies on the One Public Estate programme, which has provided a framework to bring partners together and to share resources

We will support partnership working with local authorities, the development community and Homes England to accelerate the completion of new housing to support D2N2's growth ambitions and to deliver against Government targets; ensuring this is supported by green infrastructure and multi-modal solutions, to encourage sustainable travel and mitigate the effects of additional travel in our faster-growing areas. The D2N2 Infrastructure Plan will identify infrastructure constraints in bringing forward key housing sites.

Housing will be a key relationship with our 'opportunity' construction sector. To build the homes of the future we need to have the right skills and expertise in place. The requirements of our future homes are likely to impact on the use of energy efficient technologies such as heat pumps for off-grid homes, offsite manufacturing techniques and installation of vehicle charging points, grey water recycling and consideration of district heating opportunities on new developments.

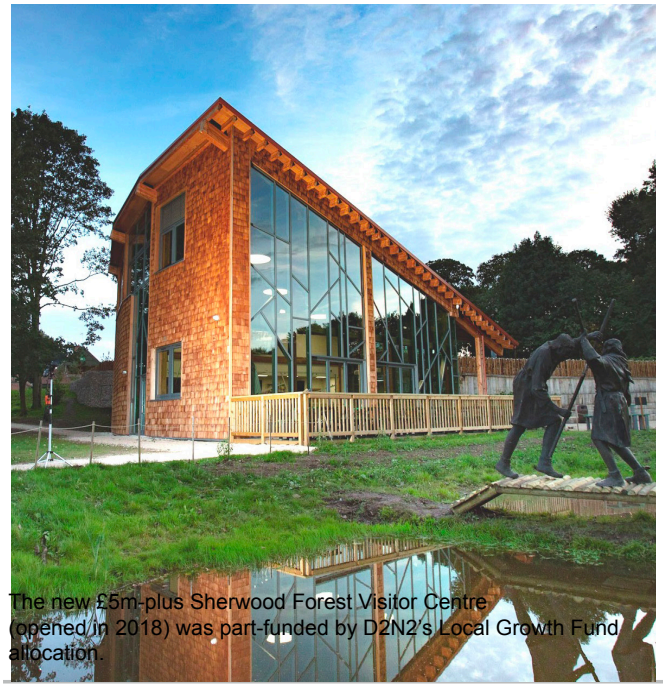
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There are emerging constraints in rising materials costs and limited construction labour availability (which could increase post-Brexit), as well as challenges associated with viability and infrastruct ure gaps. However, D2N2 has emerging strengths in modern methods of construction (MMC) including expertise in Nottingham Trent University and Laing O'Rourke's Explore Manufacturing facility near Worksop. D2N2 will seek to support the growth of our capability to explore the growth in utilisation of MMC techniques.

In addition to housing's role in supporting growth in the wider economy, there is considerable economic benefit to be gained from investment in housing development. Every £1 invested in house building generates £2.84 of economic activity. It is important that local construction companies are able to access procurement and development opportunities. There are also benefits in the form of levered private sector investment in infrastructure, and investment in skills in the form of construction training or apprenticeships. Delivering housing on mixed-used sites is often the key to enabling new employment development. We will continue to work with developers and the construction sector to realise these additional opportunities.

Housing

We will work in partnership with local authorities, Homes England, developers and the construction industry to help local housing authorities deliver their ambitious targets for growth,. This will include supporting partners' collective efforts towards the One Public Estate objectives, and supporting promotion of Modern Methods of Construction across D2N2 as a means of accelerating housing delivery.



The new £5m-plus Sherwood Forest Visitor Centre (opened in 2018) was part-funded by D2N2's Local Growth Fund allocation

Place Making and Marketing

We will empower communities across D2N2 as great places to live, work and visit, and reflecting distinctive local capabilities and needs; with all parts of the area playing their part in contributing to the vision, and maximising the benefit from, its realisation.

There's an opportunity to make more of the potential economic added value of strengthening connections between places within D2N2, and with neighbouring economies through alliances. This is already in place in Ashfield and Mansfield, where there is a joint plan for the growth of the conurbation. Derby and Nottingham are two cities in close proximity, but with distinctive and complementary strengths which are not currently being fully exploited. The Metro Strategy is seeking to make more of the benefits of agglomeration (e.g. through integrated supply chains, labour markets and transport connections) that a metropolitan area of the two cities' combined scale should be realising.

Sustaining the Quality and Vitality of our Built and Natural Environment...

Our outstanding natural environment is a major strength and differentiator. Our natural capital and rural assets are fundamental to D2N2's economic wellbeing; providing ecosystems services such as drinking water supply, carbon sequestration, food and fibre and flood protection, as well making a significant contribution to quality of life and tourism. Our natural capital is an economic asset rather than a constraint; with iconic landscapes such as the Peak District National Park, the National Forest, Sherwood Forest and an ambitious landscape-based regeneration plan in the Trent Valley Vision.

D2N2 will continue to promote a high quality built environment as part of enhancing the quality of place within the area. Maximising our green spaces and considering their inclusion in future developments, as well as effective methods of using waste products such as food waste and plastics, will help sustain the quality of our environment.

D2N2 will continue to support partners to develop approaches to conserving, enhancing and promoting for economic use our large range of high quality heritage assets; including industrial ones such as the Derwent Valley Mills World Heritage Site.

Cycling

The D2N2 LEP has invested in cycling infrastructure to promote sustainable access to key employment sites, enhanced visitor experiences, and high quality leisure and recreation opportunities, in urban and rural environments. D2N2 LEP will continue to promote investment in cycling infrastructure, to support our vision of a sustainable and healthy economy.

Revitalised High Streets in our Towns and Cities

The 'high streets' of our cities and towns have changed over the last five years due to what the Grimsey Review described as 'dramatic changes... brought about by the convergence of changing consumer behaviour driven by technology, an archaic business rates system and the prevailing economic conditions'. The weaker pound since the 'Brexit vote' has further impacted on retail. D2N2 will support the development of the visitor and experience, and creative and digital, economies; supporting innovation and skills development, and pursuing new sources of capital funding to support investments to promote town and city centres' economic vitality. .

Investing in our Places

We will work with partners to secure investment to support the vitality of our cities and towns, and enhance our iconic rural landscapes as leisure and visitor destinations; including piloting new approaches to regeneration as the roles of our cities, towns and rural areas continues to evolve.

Energy

D2N2 has a legacy of power generation and has three of the remaining seven coal-fired power stations in the UK; all due to close by 2025, with implications for the local economy and business rate revenues collected by local authorities.

As referenced in the 'Productive and Growing Businesses' theme of the SEP, D2N2 will work with partners on a detailed Energy Strategy to capitalise on our existing energy, low carbon and clean growth assets; and unlock decarbonisation related growth opportunities. It will include location-specific opportunities for use of innovative heat source technologies (rivers, canals and mine water); and opportunities for the coal-fired power stations earmarked for closure to be repurposed for other energy generation and storage technologies

New Futures for Coal-Fired Power Station Sites

D2N2 will work with partners and power companies to identify economically sustainable future uses for the former power station sites, and to retain the economically viable skills of the current workforce. D2N2 will look to work with partners to maximise the economic impact of our energy and low carbon assets.

Air Quality and Flood Protection

D2N2 will work with local partners to improve local air quality; not only to improve the quality of life for residents and workers, but also to enhance the attractiveness of D2N2 as location for business investment. This strategy will support the delivery of the national Clean Growth Strategy.

Infrastructure to Promote Resilience

D2N2 will continue to work with partners to promote the economic resilience of key business locations by promoting access to funding for enhanced flood protection; such as through the Our City Our River project and Project Munio on the Lower Derwent in Derby.

Place Marketing

Place marketing has an important role to play in attracting inward investment, talent and visitors to the area. In a highly-competitive global market we need to undertake compelling place marketing, recognising that there are distinct markets requiring different approaches. There is an opportunity to build on existing joint marketing by D2N2 investment agencies, working with the Midlands Engine and DIT; and to exploit international opportunities through Midlands Engine, and existing business and university connections.

Promoting Business Investment and Visitor Spend

D2N2 LEP will continue to work with partners to promote locations within its area for business investment and to increase visitor spend.

There have been about 100 inward investment 'successes' in D2N2 over the past three years (i.e. overseas companies locating to or expanding in the area, including through acquisitions), creating some 9,500 new jobs. While the number of successes has remained steady over this period job numbers have dropped off; from about 4,500 in 2015/16 to 1,600 in 2017/18. Over the period, more than 40% of the successes were from elsewhere in Europe and about 20% each from the US and Asia.

As detailed in the Productive and Growing Business section, the Visitor Economy continues to be important to D2N2 and offers the opportunity to raise its productivity through higher value visits, which will require investment in visitor products and facilities as well as effective marketing approaches.

Priorities	Actions
9. High Speed 2 Growth Exploit the transformational potential of HS2 to stimulate growth across D2N2	• Work with partners through an agreed programme of works to implement the East Midlands HS2 Growth Strategy, bringing forward major innovation-focused development at Toton and elsewhere; and maximising the connectivity benefits of HS2 development at Toton and Staveley by providing effective links to the station sites from across the D2N2 area, including via enhanced tram provision and access to East Midlands airport. Promoting effective access to the HS2 western leg, where appropriate. • With partners, deliver a comprehensive programme of skills and supply chain support to maximise the economic impact of HS2.
10. Infrastructure Ensure that our physical infrastructure meets immediate demand, satisfies business and housing growth ambitions and enhances our natural environment	• Develop D2N2 Infrastructure plan, identifying a ten-year pipeline of priority projects to enable and accelerate investment (physical and digital) – to unlock employment opportunities and housing investment - in order to meet existing demand and future growth ambitions. • Roll-out the development of the D2N2 Enterprise Zones, generating income for re-investment against our economic priorities. • Support the development of East Midlands Airport as our primary gateway to the world, and maximise opportunities for inward investment - e.g. in transport and logistics - linked to EMA's role as a leading freight airport, and the adjacent East Midlands Gateway. • Work in partnership with local authorities, Homes England, developers and the construction industry to help local housing authorities deliver their ambitious targets for growth, including supporting partners' collective efforts towards the One Public Estate objectives. • Support the promotion of Modern Methods of Construction across D2N2 as a means of accelerating housing delivery. • Develop an Energy Strategy to include location-specific opportunities for use of innovative heat source technologies (rivers, canals and mine water); and opportunities for the coal-fired power stations earmarked for closure, to be repurposed for other energy generation and storage technologies.

Priorities	Actions
11. Place Making & Marketing Empower D2N2 communities as great places to live, work, study and visit; and undertake compelling place-marketing in order to attract inward investment and talent to the area, and to drive up visitor spending.	• Support the vitality of D2N2 area urban centres, including key towns such as Chesterfield and the Mansfield-Ashfield Conurbation. Pilot new approaches to managing and regenerating town centres and rural communities of the future, as towns' and rural areas' role as centres of population, employment and leisure evolves. • Support a collaborative approach to place development, such as the implementation of the Metro Strategy to realise the economic benefits of agglomeration across the two cities. Work with Leicestershire LEP to take advantage of opportunities for joint working across the East Midlands' triangle and with other neighbouring LEPs to exploit common assets. • Addressing rural deprivation through strategic investment in transport and infrastructure. • Support investment in infrastructure to promote economic resilience. Build on current joint marketing by D2N2 investment agencies and local authorities, working with the Midlands Engine and DIT to maximise impact and achieve • Support investment in attracting high value visits by capitalising on industrial heritage such as the development of the Derwent Valley Mills World Heritage Site, and attract business visitors by supporting Nottingham's ambition to establish an International Convention Centre in the city.
12. Connectivity Exploit and enhance our strong transport and digital connectivity to business and labour markets; enabling businesses and people to travel and communicate quickly and easily, and unlocking opportunities for growth.	• Deliver plans for improvements in the major road network, to alleviate congestion to meet existing demand and to support ambitions for growth; including Midlands Connect and Transport for the North priorities, congestion management A52 at Pride Park, Southern Growth Corridor in Nottingham, Gedling Access Road, A61 corridor improvements including Whittington Moor roundabout in Chesterfield, Newark Southern Link road, and the Woodville-Swadlincote link road. • Secure funding to provide better integrated mass transit links across D2N2, including to HS2/EMA and housing and employment growth areas. • Secure investment in the rail network; including the Midland Main Line, improvements to Trent Junction and East Coast mainline, Castle Line service enhancements and the Robin Hood Line extension. • Complete roll-out of superfast broadband, and support introduction of next generation digital connectivity, securing investment from the ocal Full Fibre Networks Challenge Fund (second wave).

Monitoring Framework

We plan to prepare a State of the Economy Report annually and to carry out a full-scale strategic review every five years; but to keep the strategic priorities and sector focus under review in the light of significant changes in global, national or local circumstances in the meantime. The State of the Economy reports will cover the economic performance of the D2N2 LEP area across eight dimensions – economy, business, talent, inclusion, health, infrastructure, housing and environment.

We will work with partners and Government to refine and enhance this monitoring framework over the plan period, and have a strategic dialogue with partners about the implications of economic change.

Output	Gross Value Added (GVA)	£45.4bn	2016	ONS, Regional Gross Value Added (balanced) by LEP
Output per head	GVA per head	£20,846	2016	ONS, Regional Gross Value Added (balanced) by LEP
Productivity	GVA per hour	£28.6	2016	ONS, Labour Productivity
Jobs	Private sector jobs	760,694	2016	NOMIS, Business Register and Employment Survey
Earnings	Median annual earnings	£21,253	2017	NOMIS, Annual Survey of Hours and Earnings
Disposable income	Gross Disposable Household Income per head	£16,576	2016	ONS, Regional Gross Disposable Household Income
Density	Businesses per 10,000 working age residents	561	2016	ONS, Business Demography and Annual Population Survey
Exports	Value of exported goods	£11.7bn	2016	Department for International Trade
Start-up rate	Business births as a percentage of active businesses	12.7%	2016	ONS, Business Demography
Scale-up rate	Scaling businesses as a percentage of active businesses	1.2%	2015	Scale-up Institute (ONS, IDBR) and Business Demography
Survival	5-year business survival rate (%)	43.5%	2016	ONS, Business Demography
Innovation	Product or service innovation (% of businesses)	18.0%	2014-2016	ONS, UK Innovation Survey
Employment in high-tech industries	Share of employment in high and medium-high technology manufacturing and knowledge intensive market services (%)	6.1%	2016	NOMIS, Business Register and Employment Survey; Eurostat definition of high-tech industries

Higher-level qualifications	NVQ level 4+ (%)	31.6%	2017	NOMIS, Annual Population Survey
Higher-level occupations	Managerial, professional, associate professional and skilled occupation group (%)	57.3%	2017	NOMIS, Annual Population Survey
Graduate retention	D2N2 graduates who found local employment (%)	30.9%	2011-2015	Higher Education Funding Council for England
GCSE attainment	GCSE attainment A*-C in English & Maths	58.2%	2015	Department for Education, Key Stage 4 headline measures by district of the school and destination measures
Healthy life expectancy	Healthy life expectancy	60.3	2016	Public Health England, Public Health Outcomes Framework data
Working days lost due to sickness	Working days lost due to sickness (%)	1.0%	2016	Public Health England, Public Health Outcomes Framework data
Activity rate	Economically active population (%)	77.2%	2017	NOMIS, Annual Population Survey
Employment rate	Economically active employment rate (%)	95.8%	2017	NOMIS, Annual Population Survey
Working tax credits	Number of families receiving Child or Working Tax Credits	136,700	2018	HM Revenue & Customs, Child and Working Tax Credit Statistics
Employment and support allowance claimants	Number of ESA claimants	88,790	2017	NOMIS, Benefit claimants - employment and support allowance
Households in poverty	Percentage of Households Below 60% of the Median Income (after housing costs)	17.4%	2014	ONS, Households in poverty estimates for middle layer super output areas in England and Wales
Learning disabilities employment gap	Gap in the employment rate between those with a learning disability and the overall employment rate, %pt	70.0%	2017	Public Health England, Public Health Outcomes Framework data
Mental health conditions employment gap	Gap in the employment rate for those in contact with secondary mental health services and the overall employment rate, %pt	65.2%	2017	Public Health England, Public Health Outcomes Framework data

Road rated in good condition	Principal and non-principal classified roads where maintenance should not be considered (%)	95%	2016	Department for Transport, Road condition statistics
Population living within 30 minutes of a large employment centre	Population living within 30 minutes of 5,000 jobs by transit or walking (%)	45.6%	2016	Department for Transport, Journey time statistics
Business floorspace	Business floorspace per active enterprise (sq. m)	312	2016	Valuation Office Agency, total floorspace
Access to high speed internet	Availability of ultrafast broadband (300Mbit/s+)	37.3%	2018	Ofcom, Fixed Local Authority area
Dwelling stock	Dwelling stock	963,460	2017	Ministry of Housing, Communities & Local Government, Live Tables on Dwelling Stock
House price	Median house price	£160,000	2017	ONS, House price to residence-based earnings ratio
Housing affordability	Ratio of median house price to median gross annual residence-based earnings	5.6	2017	ONS, House price to residence-based earnings ratio
CO2 emissions	CO2 emissions per £m of annual GVA (tonnes)	348	2015	Department for Business, Energy, and Industrial Strategy, UK local authority and regional carbon dioxide emissions national statistics
Air quality	Days air quality exceeds 'moderate' or higher thresholds (average number of days per site)	7.4	2016	Department for Environment, Food & Rural Affairs, Air quality statistics

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