The State of the D2N2 Economy

A DRAFT Report by ekosgen for the D2N2 LEP

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Table of Contents

LEP Performance Report 1
1 Introduction 4
2 Business Support and Access to Finance 7
3 Innovation 32
4 Employment and Skills 40
5 Economic Infrastructure 49
6 Housing and Regeneration 51
Appendix 1: State of the Rural Economy 56
Appendix 2: Priority Sector Definitions 59

LEP Performance Report

This standalone paper accompanies the State of the Economy report and presents a performance summary for the D2N2 economy. It shows the latest position against a series of key indicators and comments on the progress made against the previous year. It also assesses performance over the past five years against each of the indicators and summarises the implications for the D2N2 LEP.

The performance of the D2N2 economy is summarised in the table below, overall:

- The economy has performed well in the last year and progress has been made against each of the key indicators;
- The LEP remains behind the national average against the majority of the indicators;
- Compared to the national average, the level of progress in the last year against each of the indicators was mixed.

D2N2 Performance on Key Economic Indicators

	Previous year position	Latest position	Past year: Direction of travel	England comparison	
				Latest position	Past year: Direction of travel
GVA per FTE, £	£50,759	£51,194	+£435	£60,360	
Total employees	867,800	874,000	6,200	23,225,400	
Private sector employees, No.	663,100	680,100	11,000	18,748,800	
Private sector employees, %	76.4	77.8	+1.4% pt.	80.7	
Employment rate, %*	91.2	92.2	+1.0% pt.	92.1	
Unemployment rate, %*	8.8	7.8	-1% pt.	7.9	
Business start up rate,%	9.9	10.3	+0.4% pt.	11.6	
Business 3 year survival rate, %	60.0	61.0	+1.0% pt.	59.7	
Business 5 year survival rate, %	N/A	44.7	N/A	44.4	N/A
Working age pop. with L4+ quals., %	29.3	29.9	+0.6% pt.	34.2	
Working age pop. with L3+ quals., %	50.1	52.9	+2.8% pt.	54.9	
Working age pop. with no quals., %	11.0	9.4	-1.6% pt.	9.5	
Apprenticeship starts, No.	23,330	23,870	+540	504,200	

Sources: Annual Population Survey, Business Register and Employment Survey, Business Demography, Regional Accounts, Skills Funding Agency.
*The employment and unemployment rate are based on those that live within D2N2 regardless of where they work.

GVA per FTE in D2N2 is 85% of the national average. Productivity has been increasing and D2N2 has performed well over the past five year period, £5,440 increase in GVA per FTE (12%) compared to £4,479 nationally (8%). However, growth has slowed in the past year and in the last year, the rate of productivity increase was equivalent to the national rate.

Employees: In the last year, the number of employees in D2N2 has increased by over 6,000 (1%), in line with the growth experienced nationally (1%). However, employment density in D2N2 (642 jobs per 1,000 working age population) is below the national average (677 jobs per 1,000 working age population).

Private sector employees: In the last year, the number of employees in the private sector in D2N2 increased by 11,700 (3%), higher than the level of growth experienced nationally (2%).

However D2N2 has a below average private sector job density (50,000 per 100,000 residents compared to 54,700 nationally) and the proportion of total employment accounted for by the private sector is below the England average.

Employment rate: D2N2's employment rate (92.2%) is in line with the national average (92.1%) and is consistent with the employment rate from five years previously. Considering change in the past year, D2N2 has performed well and employment has increased more rapidly than the national average.

Unemployment rate: Mirroring the trends in employment, the unemployment rate in D2N2 (7.8%) is in line with the national average and in the past year has fallen more in D2N2 compared to the national average.

Business start up rate: There are fewer businesses start ups in D2N2 compared to the national rate (10.3%). The current rate is consistent with that from five years ago, however in the past year it has increased (0.4% points) in line with the increase seen nationally.

Business 3 year survival rate: Despite the low start up rate, a higher proportion of start ups in D2N2 survive to three years compared to the national average. The latest three year survival rates show a slight increasing in survival (businesses born in 2008 and 2009) (1% point), although a lower increase compared to nationally (1.8% points).

Business 5 year survival rate: A similar proportion of businesses survive for five years in D2N2 compared to the national average (44.7% and 44.4% respectively). Time series data is not available for this indicator.

Working age population with a L4+ qualification: Fewer of the working age population in D2N2 have higher level skills compared to the national average. There has been progress in the D2N2 area against this indicator over the past five years and in the last year, however the increase has been below that seen nationally.

Working age population with a L3+ qualification: Fewer of the working age population in D2N2 are qualified to Level 3 or higher compared to the national average. Over a five year period and in the last year, the proportion of the workforce with these skills has increased in line with the national average.

Working age population with no qualifications: The proportion of the working age population with no qualifications in D2N2 (9.4%) is in line with the national average (9.5%). In the past year, the proportion of the labour market with no qualifications has declined at a higher rate than nationally (1.6% points and 0.9% points respectively), although this was from a higher base.

Apprenticeship starts have been increasing in D2N2. Over the past five years the number of Apprenticeship starts has doubled in D2N2 (106%), although England experienced a slightly larger rise (113%). In the past year the number of starts has increased slightly (2%), while England has experienced a decline (-2%).

Implications for D2N2 LEP

There are signs of recovery and growth in the D2N2 economy. In the past year across all the key economic indicators, the direction of travel of the D2N2 economy is a positive one. Employment is on the rise, with increases in professional occupations and growth in the area's high value industrial base. Productivity has increased, the labour market is becoming more skilled and businesses are investing in the future skills of their workforce through Apprenticeships.

The D2N2 economy however lags behind the national average on many of the key economic indicators. Productivity is below average due to the concentration of lower value added sectors and this is also reflected in the lower level skills base with fewer of the workforce with Level 3 and above skills. Employment density is lower than the national average, which is due to a lack of private sector jobs and low business density, and business start up rates are low, although those businesses that start up have good survival prospects.

In summary, historically through to the present day, D2N2 is a dynamic and diverse economy with enduring excellence in cutting-edge manufacturing and engineering, particularly transport,

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medicine and bioscience, and construction. D2N2 combines a range of rural and urban areas that are key economic assets including vital urban conurbations (Core City of Nottingham and the Key City of Derby), important sub-regional centres, attractive market towns and productive and diversified rural economies, within a high quality natural environment which enhances the quality of life for our residents. Innovation is a key strength and the area is home world-class universities and excellent innovative companies, from Sygnature Discovery in Nottingham to Toyota UK, Alliance Boots, EoN and Rolls Royce. The presence of facilities such as 'BioCity' and Infinity Park will ensure a supply of knowledge intensive businesses for the future.

The D2N2 area is at the heart of the UK, with excellent and improving transport and digital connectivity. The area performs well in terms of exports and makes a significant contribution to the UK's export earnings. Building on our skilled workforce, innovative capacity, high-quality locations and vibrant urban and rural environment, D2N2 is the competitive location for business investment and has the potential to increase its rate of economic growth and make a significant contribution to achieving the Government's ambitions for creating a more balanced and sustainable UK economy.

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1 Introduction

1.1 Introduction

Lord Heseltine's 'No Stone Unturned in the Pursuit of Growth' report highlighted need to devolve decision making to local economic geographies. Following this report, Local Economic Partnerships (LEPs) are developing Strategic Economic Plans which will underpin Local Growth Deals to access Local Growth Fund (LGF) monies and inform local EU Structural and Investment Funds Strategies.

As one of the largest LEP economies, the D2N2 LEP has set ambitious targets for the area to be *'one of the strongest and most resilient economic regions in the UK'* and the LEP aims to support and encourage growth across the local economy. In light of this new context for local economic development and ambitions for the area, D2N2 LEP has recognised the need to develop and maintain a high quality evidence base to inform strategy development, priority setting and funding bids. To this end, ekosgen have been commissioned to provide the LEP with economic intelligence throughout this period of strategic planning.

1.2 The State of the D2N2 Economy

In June 2013, ekosgen drafted the *State of the Economy* report for D2N2. This report was based on a variety of official statistics and secondary research and provided a detailed assessment of the economic conditions, structure and performance of the D2N2 economy.

This report builds on the previous *State of the Economy* report. Since the 2013 report was published, there have been further data releases across the majority of the statistical series which were used. The updated data are presented in this report, as well as trends over the last five years. The study focuses largely on the D2N2 economy as a whole, with references made to any particular spatial differences where appropriate. Comparisons are made with the East Midlands and England, as well as a series of neighbouring and peer group LEPs for context.

This chapter provides a geographic introduction to the D2N2 economy. The remainder of the report broadly follows the structure of the D2N2 Strategic Economic Plan and includes:

- Chapter 2: Business support and access to finance
- Chapter 3: Innovation
- Chapter 4: Employment and skills
- Chapter 5: Economic Infrastructure
- Chapter 6: Housing and Regeneration
- Chapter 7: Economic Overview

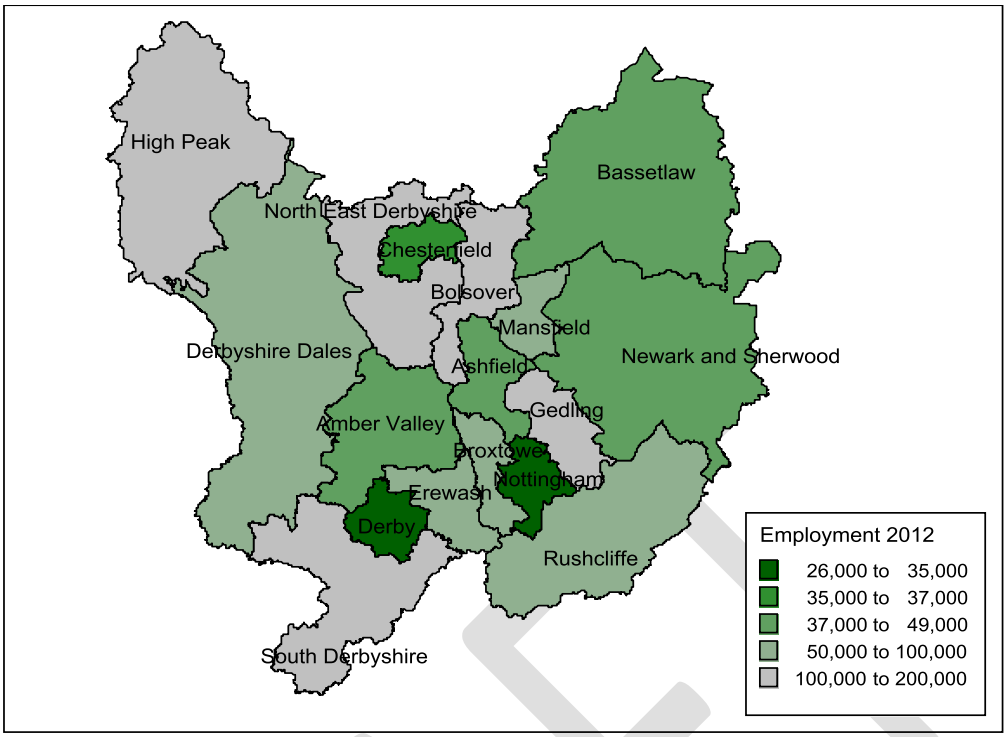
A review of the performance of the rural D2N2 economy and the definitions of the priority sectors are appended to the report. An annex with the data included in this report at local authority level has also been produced.

1.3 An Introduction to D2N2's Economic Geography

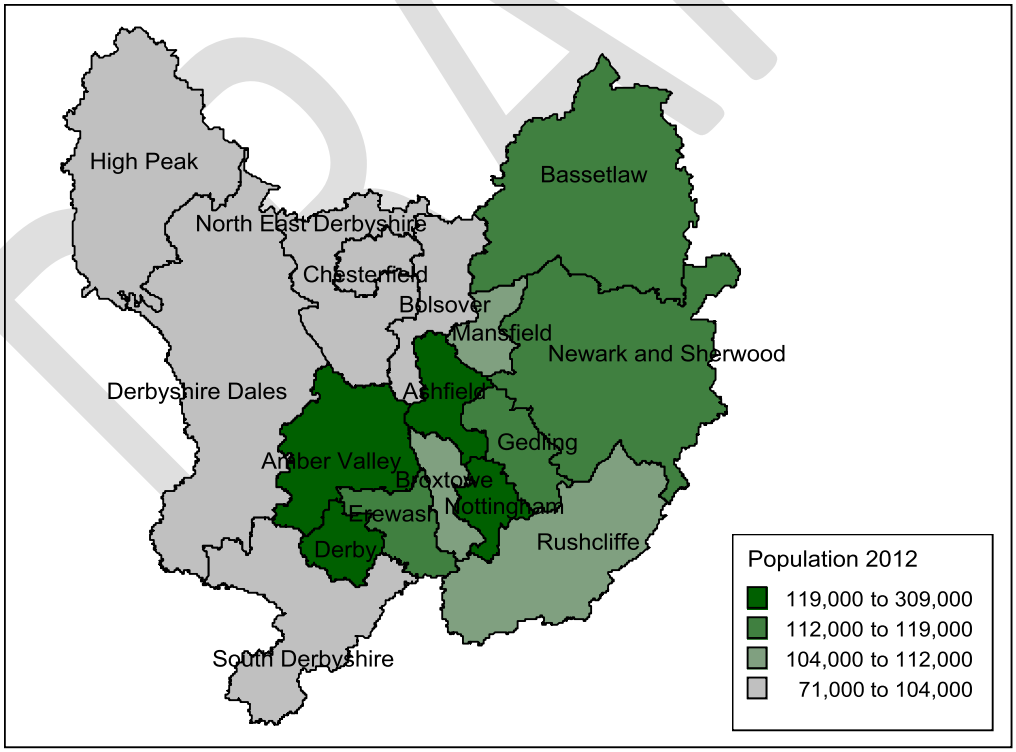
The D2N2 area covers Derby, Nottingham, Derbyshire, and Nottinghamshire. It has a central location in England, well served by key north-south transport links such as the M1 and Midlands Mainline. The economy comprises a mixture of rural and urban areas across 17 local authority areas. Employment is distributed across D2N2's cities, towns, rural and urban areas. There is a concentration of employment in and around the area's two largest centres - Nottingham and Derby – with the two cities combined accounting for 36% of total employment compared to 26% of its total population.

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D2N2 Employment 2012



D2N2 Population 2012



The D2N2 economic area is a diverse and relatively complex, area. Nottingham and Derby (within the area) and Sheffield (lying outside of D2N2) are the most important cities in terms of supplying jobs for D2N2 residents and labour. Whilst most commuting takes place within the D2N2 area, there are close linkages to neighbouring areas across administrative boundaries notably South Yorkshire, Lincolnshire, Leicestershire and Greater Manchester.

Analysis shows that there are broadly four distinct economic areas within the D2N2 boundary. In summary, the particular characteristics of these areas are:

- **Nottingham City and the surrounding areas of south and east Nottinghamshire and east Derbyshire** – the Core City of Nottingham is an employment destination for commuters and a centre of business activity and services. Approximately one-third of the D2N2 population lives within the conurbation and the city provides both highly skilled and well-paid employment (often taken up by residents commuting in from surrounding areas) as well as a large number of relatively low paid jobs, and has relatively high rates of unemployment. Parts of Rushcliffe and Newark and Sherwood Districts could be considered part of the London commuter belt, with Newark less than 70 minutes from London by train;
- **Derby City, South Derbyshire and the M1 corridor** – a cluster of highly competitive advanced manufacturing firms means wages are high and there are opportunities for highly skilled workers. Whilst the Derby urban area accounts for a high proportion of employment South Derbyshire and Amber Valley have significant employment and business bases, and a number of major opportunities. There is also evidence of significant out-commuting by professional and managerial workers to areas including Nottingham and the West Midlands;
- **North Nottinghamshire and north east Derbyshire** are areas with industrial legacies which offer opportunities linked to brownfield land, lower wage rates and excellent transport connections. There is a flourishing manufacturing sector in these areas, attracted in part by the availability of land for development and excellent workforce training provision through colleges such as Vision West Notts College and Chesterfield College. The area is also part of the Sheffield City Region, with Bolsover experiencing strong employment growth, and Chesterfield attracting an in-flow of commuters. There are also strong links to Mansfield and Ashfield;
- The **wider Peak District area** is predominantly rural with a number of important market towns acting as employment and service centres in their own right. The resident population is highly qualified but many commute to professional jobs in the surrounding cities of Sheffield and Manchester (as well as Derby and Nottingham) and despite the presence of some high value SMEs, workplace wages in the area are low. There are significant levels of employment in the public sector, manufacturing and sectors associated with tourism, and Derbyshire is the most important mineral-producing area in the UK, with this high-value activity concentrated in the wider Peak District.

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2 Business Support and Access to Finance

Key Point Summary

- There are 874,000 employees in D2N2, making it one of the largest LEP economies. Recently D2N2 has experienced employment growth in line with the upturn nationally (1% between 2011 and 2012). This follows employment decline in the years after the economic crash, where D2N2 was adversely affected by job losses.
- In D2N2 there are 642 jobs per 1,000 working age population, which is below the regional and national averages (651 and 677 respectively), which is due to a lack of private sector jobs.
- There are eight priority sectors in D2N2: visitor economy, construction, transport and logistics, transport equipment manufacturing, food and drink manufacturing, life sciences, creative industries and low carbon. Together, seven of the eight sectors account for 205,000 jobs, over a fifth of total employment. The eighth sector, low carbon, accounts for 28,700 jobs. The sector includes cross-cutting activities including employment in industries that overlap other sectors and therefore these jobs can not be included in the total.
- The priority sectors range considerably in size, from 65,300 (visitor economy) to 7,200 (life sciences). The transport equipment manufacturing and food and drink manufacturing sectors are particularly important - both provided a reasonably high number of jobs, have grown in employment terms in recent years and are over represented compared to the national average.
- In the years during the downturn, the D2N2 business base has declined (3.2% between 2008 and 2011). While this decline has since stabilised, D2N2 has a lower than average business density and in 2012 there were 312 businesses per 10,000 population compared with 399 nationally.
- The start up rate in D2N2 is 10%, which is below the regional and national average (11% and 12% respectively).
- The D2N2 economy performs well in terms of business survival, particularly for those businesses born at the height of the financial crash in 2008 and 2009.
- D2N2 generates approximately £37 billion of Gross Value Added (GVA). However the economy is less productive than the national average, with a GVA per FTE figure of £51,200. This is 85% of the England GVA per FTE or £9,000 lower. Productivity has been increasing faster than the national rate in recent years (2009 to 2012), however it has slowed somewhat and was in line with growth national between 2001 and 2012.
- D2N2 does well from foreign direct investment and is one of the top performing LEPs in terms of jobs created through this means.
- The supply of finance reduced following the financial crash, which has adversely affected business growth. However businesses are now looking to grow and there is current unmet demand for finance from businesses in the East Midlands.

2.1 Employment

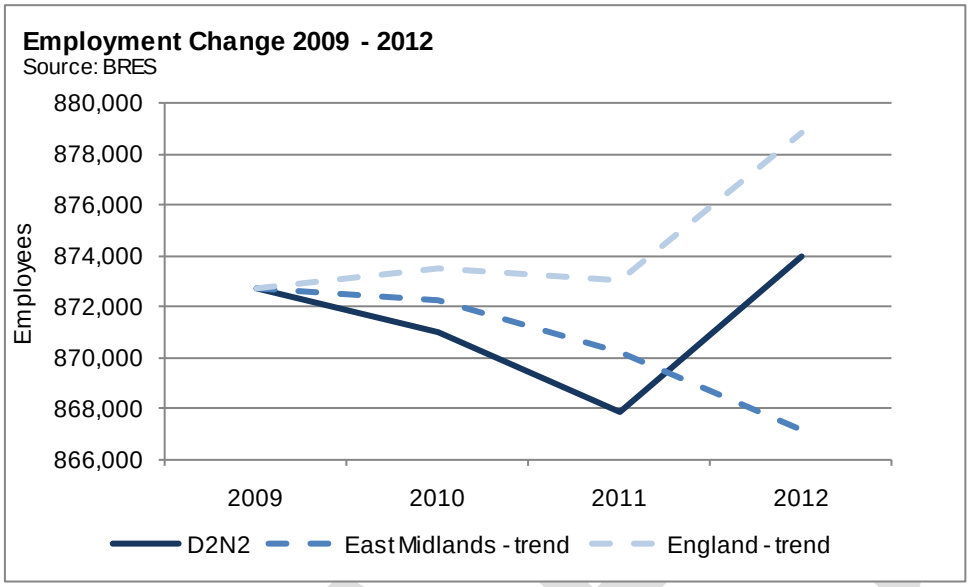
RECENT EMPLOYMENT TRENDS

The D2N2 economy is one of the largest LEP economies in England, employing nearly 874,000. During the 1998 to 2008 growth period, employment growth in D2N2 failed to keep pace with the national rates and was driven entirely by growth in public sector employment.

Overall between 2009 and 2012, employment in the D2N2 economy has been fairly static. This however masks a sharp fall in employment in the years immediately following the financial crash, followed by employment growth more recently, as shown in the chart below:

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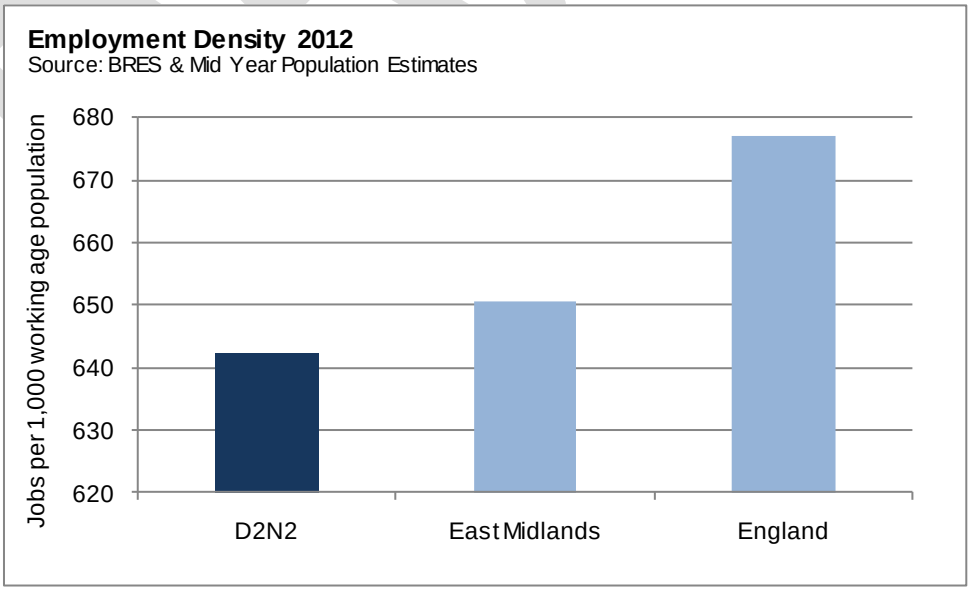
- Between 2009 and 2011, D2N2 suffered a greater decline in employment than England or the East Midlands. Nearly 5,000 jobs were lost in D2N2 (-0.6%), compared to a -0.3% decline across the East Midlands and employment in England was static;
- Since 2011, D2N2 has followed the national upturn in employment with an increase of 6,200 jobs (1%), while the decline in the East Midlands has continued.



The local authorities that have driven this recent increase include Nottingham (2,800 additional jobs between 2011 and 2012), Chesterfield (2,200) and South Derbyshire (1,700). The later two local authorities have also experienced high proportionate increases in employment (5% and 6% respectively).

EMPLOYMENT DENSITY

Employment density is a measure of employment in an area relative to its population size. In D2N2, employment density (642 jobs per 1,000 working age population) is below the regional and national averages (651 and 677 respectively).



To close the gap and reach the national level of employment density, a further 47,500 jobs are required in D2N2. Following employment growth in the past year, D2N2 has started to close this gap. In 2011, the D2N2 employment gap was 48,300 jobs, 900 more compared to the 2012 figure.

2.2 Industrial Structure

CONTINUED IMPORTANCE OF MANUFACTURING

An economy's industrial structure is an important factor in the ability to respond to economic shocks and also capture future economic growth opportunities. A number of broad sectors are particularly over represented in the D2N2 economy, notably:

- Manufacturing is a historical strength and the sector provides 121,800 jobs. Accounting for 13.9% of total employment compared with just 8.5% nationally, D2N2 is one of the largest concentrations of industry in the country;
- Human health and social work, employing 126,600 and accounting for 14.5% of the D2N2 economy compared to 13% nationally;
- Wholesale and retail (149,200 employees), education (91,500) and business administration and support (78,600) are all also over represented although to a slightly lesser extent.

In contrast, the following service sectors are under represented:

- Professional, scientific and technical, accounting for 5.4% of D2N2 employment compared with 7.7% nationally;
- Information and communication, accounting for 2.5% of D2N2 employment compared with 4.1% nationally;
- Financial and insurance, accounting for just 1.5% in D2N2 compared with 3.9% nationally;
- Accommodation and food (48,500 employees), accounting for a large part of employment in the visitor economy, and transport and storage (33,700) are both large and slightly under represented sectors.

Sectors with an average representation of employees include:

- Public administration (44,100 employees), construction (40,100) and other services (17,400).

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D2N2 Current Employment by Sector 2012			
Sector	**D2N2**	**D2N2 (%)**	**England (%)**
Over represented sectors			
Wholesale and retail	149,200	17.1%	16.1%
Human health and social work	126,600	14.5%	13.0%
Manufacturing	121,800	13.9%	8.5%
Education	91,500	10.5%	9.6%
Business administration and support	78,600	9.0%	8.5%
Average representation			
Public administration and defence	44,100	5.0%	4.8%
Construction	40,100	4.6%	4.4%
Other service activities	17,400	2.0%	2.0%
Other sectors	14,100	1.6%	1.8%
Under represented sectors			
Accommodation and food	48,500	5.5%	6.8%
Professional, scientific and technical	47,000	5.4%	7.7%
Transport and storage	33,700	3.9%	4.6%
Information and communication	21,400	2.5%	4.1%
Financial & insurance	13,500	1.5%	3.9%
Arts, entertainment and recreation	17,700	2.0%	2.4%
Real estate activities	8,800	1.0%	1.6%
Source: BRES			

The industrial structure varies across the area, with concentrations of manufacturing in Derby, Derbyshire and Nottinghamshire and a strong base of business services related employment in Nottingham:

- **Derby:** Employment in the manufacturing sector is over represented in Derby, accounting for 18% of employment compared to 9% nationally and employment in the health sector is also over represented (16% compared to 13% nationally). Employment across all other sectors is broadly in line with the national average.
- **Derbyshire** similarly has an over representation of employment in the manufacturing sector (18% of total employment) and employment in the education sector is also over represented (13% compared to 10% nationally). The professional services (5%), business services (4%) and financial services (1%) sectors are all under represented compared to the national average (8%, 9% and 4% respectively).
- **Nottingham:** Employment in the business service sector is particularly highly over represented in Nottingham (21% compared to 9% nationally). The health sector is the other over represented sector in Nottingham (16% compared to 13% nationally). The majority of other sectors are correspondingly under represented, with the highest under representation in the manufacturing and professional services sectors (5% each compared to 9% and 8% nationally).
- **Nottinghamshire:** The manufacturing sector is also over represented in Nottinghamshire accounting for 14% of employment (9% nationally). Employment in the business services (6%) and financial services (1%) sectors are under represented compared to nationally (9% and 4% respectively).

STRONG PERFORMING SECTORS

D2N2 benefitted from strong growth in a number of sectors between 2009 and 2012, in particular wholesale and retail (11,400 jobs), business administration and support (10,800) and education (10,200) which together account for 71% of the employment increase in the growing sectors. These sectors also grew at a much higher rate than the regional and national average. D2N2's

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manufacturing base experienced a slight employment growth (400 jobs, 0.3%), which is below the regional rate of growth (1.2%).

The manufacturing sector in D2N2 has bucked the national trend and has experienced employment growth in recent years while across England employment in the sector has declined. With an increase of 6,600 net jobs, the sector made the largest contribution to the recent employment growth (5.7%), while -3.5% of manufacturing sector jobs were lost nationally.

Alongside the manufacturing sector, other sectors that have driven this increase include the professional services (5,600) and business services (3,200) sectors. Compared to the national average, the rate of employment growth in the professional services sector was particularly high (13.6% in D2N2 compared to 3% nationally).

D2N2 Employment Change 2009 – 2012				
Sector	**D2N2 Net Change**	**D2N2 % Change**	**East Mids % Change**	**England % Change**
Growing sectors				
Wholesale and retail	11,400	8.2%	2.9%	-0.8%
Business administration and support	10,800	16.0%	5.8%	9.6%
Education	10,200	12.6%	8.8%	2.5%
Human health and social care	9,000	7.7%	8.1%	5.2%
Other services	1,400	8.8%	10.0%	-8.8%
Mining and quarrying	1,200	40.2%	48.1%	20.0%
Manufacturing	400	0.3%	1.4%	-3.5%
Financial and insurance	300	2.5%	1.2%	-0.8%
Water supply	<100	1.0%	0.0%	15.0%
Declining sectors				
Electricity	-1,100	-27.5%	+1.1%	+0.2%
Transport & storage	-1,300	-3.7%	+5.6%	0.0%
Professional, scientific and technical	-2,800	-5.7%	+2.0%	+5.0%
Information and communication	-3,800	-15.1%	-17.8%	+2.0%
Accommodation and food	-4,600	-8.6%	-5.7%	+3.1%
Real estate	-6,200	-41.3%	-47.0%	-1.7%
Public admin	-6,300	-12.4%	-18.3%	-10.1%
Arts & entertainment	-7,500	-29.9%	-28.9%	+1.4%
Construction	-10,900	-21.3%	-20.5%	-9.8%
Source: BRES				

In recent years, there are a number of sub-sectors that have been important in terms of employment growth. The table below highlights those sub-sectors (two digit SIC code level) that grew by 1,500 employees or more between 2009 and 2012. The highest net increases were in the education (10,200 net additional employees), employment activities (e.g. recruitment agencies) (9,900) and retail (7,000) sectors. It should be noted that data for the employment activities is however potentially misleading as this includes both staff directly employed and those on the agency's books who are working in other sectors. The over representation in this sector (LQ 1.7) is therefore a reflection of businesses' use of agency employment to meet labour demands.

All the sectors shown in the table below experienced a higher proportionate increase compared to the England average. The highest comparable increases were in the other professional, scientific and technical activities sector (68.3% compared to 7.2% nationally), warehousing and support activities for transportation sector (59.8% compared to 21%), and the manufacture of rubber and plastic products sector (22.6% compared to -4.2%).

D2N2 Sub-Sectors with an Increase of Over 1,500 Employees 2009 - 2012				
Sub-sector	**Employment**		**Change**	
	2009	**2012**	**Net**	**%**
Education	81,300	91,500	10,200	12.6%
Employment activities	36,100	46,100	9,900	27.5%
Retail	87,000	93,900	7,000	8.0%
Residential care activities	20,400	25,000	4,600	22.3%
Warehousing and transport support activities	6,900	11,000	4,100	59.8%
Social work activities without accommodation	29,200	32,200	3,000	10.3%
Wholesale trade (ex. motor vehicles/motorcycle)	34,500	37,400	2,900	8.3%
Other professional, scientific and technical	3,100	5,300	2,100	68.3%
Manufacture of rubber and plastic products	8,100	9,900	1,800	22.6%
Manufacture of machinery and equipment	5,600	7,300	1,700	30.6%
Wholesale, retail and repair of motor vehicles/ motorcycles	16,400	18,000	1,600	9%
Source: BRES				

A number of sub-sectors performed less well between 2009 and 2012. The largest decreases were in specialist construction activities (-11,200), public administration (-6,300) and real estate (-6,200), together accounting for nearly half of all employment decline (47%). This reflects the effect of the downturn on the housing market and the reduction in public sector budgets.

Nationally, six of these ten sub-sectors experienced employment decline and compared to the national average, the decline in D2N2 was particularly high in the Creative, arts and entertainment activities (-82.2% compared to 16.1% nationally), Advertising and market research (-64.8% compared to 15.9%) and real estate activities (-41.3% compared to -1.7%) sector.

D2N2 Sub-Sectors with a Decrease of Over 2,800 Employees 2009 - 2012				
Sub-sector	**Employment**		**Change**	
	2009	**2012**	**Net**	**%**
Specialised construction activities	32,100	21,000	-11,200	-34.7%
Public administration and defence	50,400	44,100	-6,300	-12.4%
Real estate activities	14,900	8,800	-6,200	-41.3%
Food and beverage service activities	44,600	38,900	-5,700	-12.9%
Creative, arts and entertainment activities	4,900	900	-4,100	-82.2%
Manufacture of other non-metallic mineral products	10,200	6,400	-3,800	-37.4%
Postal and courier activities	9,900	6,500	-3,400	-34.2%
Sports, amusement and recreation activities	13,800	10,400	-3,400	-24.3%
Advertising and market research	5,000	1,800	-3,300	-64.8%
Computer programming, consultancy	14,200	11,400	-2,900	-20.2%
Source: BRES				

At the most detailed sub-sector level (five digit SIC codes), there several highly represented sub-sectors in the D2N2 economy. Eight of the ten most highly represented sub-sectors are manufacturing sub-sectors, further highlighting D2N2's industrial sectoral structure.

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Top 10 D2N2 Sub-Sectors (5 digit SIC codes) by LQ 2012			
	Sites	Employees	LQ
Manufacture of women's underwear	14	500	11.25
Manufacture of games and toys (other than professional and arcade games and toys) n.e.c.	18	700	8.67
Manufacture of refractory products	14	700	8.40
Youth hostels	15	400	5.20
Manufacture of other technical and industrial textiles	15	600	4.82
Manufacture of cocoa, and chocolate confectionery	11	1,700	4.77
Manufacture of ceramic household and ornamental articles	10	700	4.74
Manufacture of other food products n.e.c.	23	4,000	4.73
Manufacture of other tanks, reservoirs and containers of metal	16	500	4.15
Casting of iron	12	600	4.02
Source: ERC Research Paper No. 15 Localisation of Industrial Activity across England's LEPs: 2008 & 2012			

2.3 Priority Sectors

The D2N2 LEP has identified eight sectors which are of strategic importance to the future of its economy:

- **Visitor economy:** This includes hotels, food services, travel agency activity, entertainment activities, libraries, museums and sports activities;
- **Construction** of buildings, civil engineering and specialised construction activities;
- **Transport and logistics:** This includes land transport, air transport, water transport, warehousing activities and courier services
- **Transport equipment manufacturing:** This includes manufacture of motor vehicles and other transport equipment;
- **Food and drink manufacturing;**
- **Life sciences:** This includes manufacture of medical instruments and basic pharmaceutical products, manufacture of irradiation, electromedical and electrotherapeutic equipment, retail sale of medical and orthopaedic goods, wholesale of pharmaceutical goods, and research and development in natural sciences;
- **Creative Industries:** The sector includes motion picture activities, sound/radio, photographic and design services, advertising, media activities and printing and publishing activities;
- **Low carbon goods and services** includes the development, production and/or delivery specific low carbon and environmental goods or services.

Seven of these sectors can be defined using SIC codes. The eighth, low carbon goods and services, includes activities that overlap traditional sector definitions and encompass a range of processes and technologies. The analysis in this section of the report uses data from BRES to present an employment profile of the first seven priority sectors, and draws on bespoke research to analyse the low carbon goods and services sector.

The first seven of the priority sectors employ a total of 184,700, which is over a fifth of total employment in D2N2 (21.1%). The priority sectors range considerably in employment size, ranging from the visitor economy and construction sectors as the largest (65,300 and 40,100 jobs respectively), to the life sciences sectors as the smallest (7,200 employees). There are 28,700 employees in the low carbon goods and services sector, although as noted above this include employment in industries that overlap other sectors and therefore these jobs can not be included in the total.

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Priority Sector Employment 2012				
	D2N2 Employees	D2N2 % of total	East Midlands % of total	England % of total
Visitor economy	65,300	7.5%	7.4%	9.2%
Construction	40,100	4.6%	4.3%	4.4%
Transport and logistics	28,600	3.3%	4.6%	4.0%
Creative Industries	26,700	3.1%	3.1%	4.9%
Transport equipment manufacturing	20,200	2.3%	1.5%	1.0%
Food and drink manufacturing	16,900	1.9%	2.8%	1.3%
Life Sciences	7,200	0.8%	0.7%	1.0%
Total	**205,000**	**23.5%**	**24.4%**	**25.8%**
Low carbon goods and services	28,700	3.3%	3.3%	4.0%
Source: BRES and Low Carbon Environmental, Goods and Services, Report for 2011/12, Department for Business Innovation and Skills, July 2013				

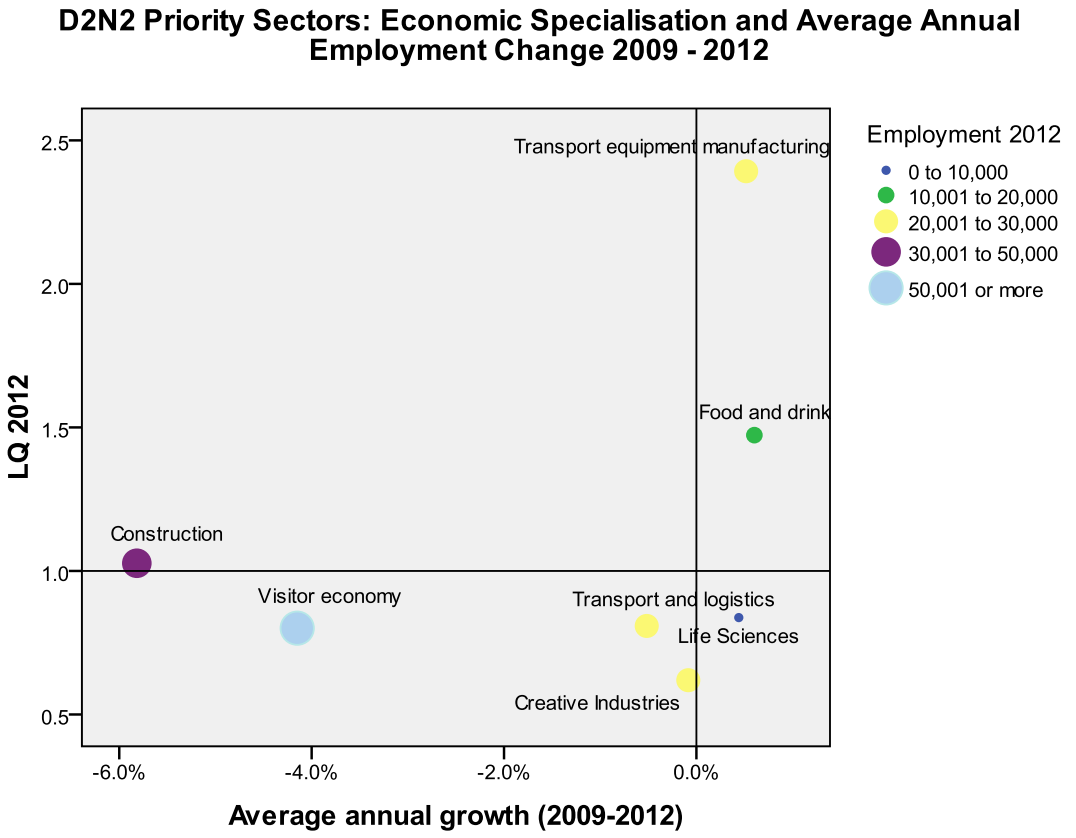
The priority sectors have had a mixed experience in terms of employment change in recent years. Three of the seven have experienced employment growth - transport equipment manufacturing, food and drink manufacturing and life sciences - while nationally these sectors have experienced decline. The remaining four have declined in employment terms - visitor economy, construction, creative and transport and logistics – while nationally, employment in all but one (construction) has increased.

Priority Sector Employment Change 2009 - 2012				
	D2N2		East Midlands	England
	No.	%	%	%
Transport equip manufac.	400	2%	-1%	-7%
Food & drink manufac.	400	2%	8%	-2%
Life Sciences	100	2%	-2%	-3%
Transport and logistics	-600	-2%	7%	2%
Construction	-10,900	-21%	-21%	-10%
Creative industries	-11,300	-30%	-29%	6%
Visitor economy	-12,100	-16%	-13%	3%
Source: BRES				

Of the priority sectors, employment in the transport equipment manufacturing and food and drink manufacturing sectors is highly represented, the construction sector has average representation and the remainder have below average representation.

The chart below summarises the employment size, change and representation of each of the priority sectors. It highlights the importance of the transport manufacturing sector, as a relatively large, growing and over represented sector. The food and drink manufacturing sector is also important although with fewer employees than in the transport manufacturing sector. Furthermore, both these have experienced growth while the overall trend has been a decline in manufacturing sector employment.

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TRANSPORT EQUIPMENT MANUFACTURING

The advanced manufacturing sector covers the production of aerospace, automotive and rail transport vehicles. The D2N2 area is often synonymous with the transport equipment manufacturing sector, given the presence of a number of large and globally significant employers and their significant local supply chains such as:

- Toyota, which has two manufacturing plants within the D2N2 area employing over 3,000 and with a value of £2 billion. Their presence in the area has resulted in significant HE and FE collaboration and an extensive apprenticeship programme.
- Rolls Royce, whose presence in Derby has included close collaboration with Derby College which has ensured that the current and future skills needs of the workforce are anticipated and addressed, supporting competitive advantage in the global market.
- Bombardier, a large and globally significant company which has an extensive local supply chain with overlaps into some of the area's other industrial strengths.

Employment in the transport equipment manufacturing sector is highly represented in D2N2, with over twice the national average level of employment in the sector. The sector is particularly highly represented in Derby and South Derbyshire. During the period 2009 to 2012, the sector experienced growth in employment (400 jobs, 2.1%). This masks underlying variation, with the majority of growth in the manufacture of other transport equipment sector (1,300 jobs, 9.7%), a large proportion of which was countered by decline in manufacture of motor vehicles and trailers sector (900 jobs, -15.1%). Nationally, both sectors have declined in employment (-9.9% and -5% respectively), which further highlights the importance of other transport equipment manufacturing to the D2N2 economy.

The importance of the sector is recognised in the UK Industrial Strategy and, despite increasing global competition, it is likely to remain an important driver of the D2N2 economy. The sector is complemented by strengths in the area's research base, particularly at the School of Mechanical Materials at the University of Nottingham. Although not part of the manufacturing sector, there are linkages to transport innovation and information technologies in which the universities have considerable expertise.

D2N2 Transport Equipment Manufacturing Employment				
	Employment		Change 2009 - 2012	
	2009	2012	No	%
Manufacture of other transport equipment	13,700	15,000	1,300	9.7%
Manufacture of motor vehicles & trailers	6,100	5,200	-900	-15.1%
Transport Equipment Manufacturing	**19,800**	**20,200**	**400**	**2.1%**
Source: BRES				

LIFE SCIENCES

The life sciences sector is also recognised in the Industrial Strategy as a key growth sector, with increased technologies and demand driven by an ageing population and a number of LEP areas have prioritised the development of the sector. The sector includes four interrelated sub-sectors which together include manufacture and distribution activity relating to human health and medical care. This is a high value sector, particularly the manufacture of medical devices sub-sector, with a high level of R&D activity.

The life sciences sector in D2N2 is slightly over represented compared to the East Midlands but is under represented in national terms. D2N2 is home to over 200 medical technology firms and the sector is particularly important in Nottingham where it is a key driver of innovation. D2N2 has historical strengths in the sector, including the presence of a significant pharmaceutical sector, the HQ of Alliance Boots and the presence of Bio-city in Nottingham, which is a nationally recognised facility providing support for niche producers and university spin-outs.

Between 2009 and 2012, employment grew in the sector by 2% (an additional 100 jobs), while the sector declined nationally in this period (-2%). At the sub-sector level, employment change has been mixed in recent years. Of the four larger sub-sectors, two have experienced employment growth (manufacture of basic pharmaceutical products and pharmaceutical preparations and manufacture of medical and dental instruments and supplies), the majority of which was countered by decline in the other two sub-sectors (wholesale of pharmaceutical goods and research and experimental development on natural sciences and engineering).

D2N2 Life Sciences Sector				
Sub-sector	Employment		Change 2009-2012	
	2009	2012	No	%
Wholesale of pharmaceutical goods	2,900	2,700	-200	-6.5%
Manufacture of basic pharmaceutical products and pharmaceutical preparations	1,100	1,500	400	33.6%
Research and experimental development on natural sciences and engineering	1,700	1,500	-200	-13.0%
Manufacture of medical and dental instruments and supplies	1,100	1,300	200	18.9%
Retail sale of medical and orthopaedic goods (other than hearing aids) nec, in specialised stores	200	200	0	-21.7%
Manufacture of irradiation, electromedical and electrotherapeutic equipment	0	0	0	-
Life Sciences	**7,000**	**7,200**	**100**	**2%**
Source: BRES				

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FOOD AND DRINK MANUFACTURING

The manufacturing of food and drink is an important sector for the D2N2 economy. Within the D2N2 area, the sector is particularly important in the Peak District National Park, Newark and Sherwood, Bassetlaw and Amber Valley, and especially in rural areas due to the links to D2N2's agricultural base, with the agri-food sector continuing to grow during the recession. D2N2 is home to many blue chip food manufacturers, including Thorntons, Warburtons, Nestle, Greencore, British Sugar and Pork Farms, in addition to a vibrant SME base across the urban and rural landscape, with high quality goods of world renowned provenance. The area benefits from good connectivity to the rest of the UK, which enables rapid distribution of food and drink products and easy access to markets.

The sector employs 16,900 people and has experienced modest growth in recent years. Between 2009 and 2012, employment in food and drink manufacturing grew by 400 jobs (2.4%) with both sub-sectors contributing to the increase. The sector is also relatively productive in the D2N2 economy with output per full-time employee estimated to be 5.5% higher than the sector in the UK overall. Occupations in the sector range from the highly skilled (high tech, professional and managerial occupations, including food scientists and engineers), to lower skilled roles appealing to a broad section of the workforce. Dedicated training is provided for the sector by organisations including New College Nottingham, University of Derby in Buxton and School of Artisan Food.

D2N2 Food and Drink Manufacturing Sector				
Sub sector	Employment		Change 2009-2012	
	2009	2012	No	%
Manufacture of food products	16,300	16,500	300	1.7%
Manufacture of beverages	300	400	100	52.0%
Food and Drink Manufacturing	**16,500**	**16,900**	**400**	**2.4%**
Source: BRES				

CONSTRUCTION

The construction sector employs over 40,000 people in D2N2 and it is the second largest priority sector accounting for 4.6% of D2N2's total employment. The construction sector includes the preparation of land and the construction, alteration and repair of domestic and commercial buildings and infrastructure. The sector is cyclical and its performance is closely linked to that of the overall economy. In recent years, the recession and slow economic recovery has led to job losses in the sector of nearly 11,000 jobs (-21.3%) between 2009 and 2012.

Despite recent decline, the construction sector can play an important role in generating additional economic activity, with every £1 invested in house-building generating nearly £3, through wages and profits, spending with suppliers (including the aggregates / minerals industry – Derbyshire is the largest producer of minerals in the UK) and spending in the wider economy. An important issue for the construction sector in D2N2 is to ensure that businesses are able to access both public sector and private procurement opportunities, and are able to find the training they need to upskill their workforce.

D2N2 boasts a number of large employers in the sector including Morgan Sindall and Bowmer and Kirkland, and the construction sector locally is relatively productive with output per worker estimated to be 9% higher than in the UK overall and accounting for 8.7% of GVA in the D2N2 area. It is also an important provider of skilled jobs and training / apprenticeship opportunities for young people together with 'up-skilling' of the supply chain in collaboration with larger businesses. There are also emerging specialisms in low carbon construction, retrofit and renewable technologies, as discussed later in this chapter.

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D2N2 Construction Sector				
Sub-sector	Employment		Change 2009-2012	
	2009	2012	No	%
Construction	51,000	40,100	-10,900	-21.3%
Source: BRES				

VISITOR ECONOMY

The visitor economy sector covers those activities which are directly associated with tourism, including hotels and restaurants, museums and cultural attractions, as well as activities relating to sports and the arts which attract domestic and international visitors. The sector is extremely competitive at a national level. The D2N2 economy has some key assets in this regard notably the Peak District National Park, one of the UK's major attractions. With a unique landscape, built heritage offer and links to surrounding conurbations, the Peak District draws visitors from D2N2, Manchester and Sheffield city regions, Staffordshire, as well as national and international visitors. However, it is a low added value sector and employment is characterised by low wage, part time and seasonal working. Recent research commissioned on behalf of the visitor economy sector has demonstrated the need for capital investment in attractions in order to continue to attract visitors to the area.

The sector is important to the D2N2 economy, with over 65,000 employees (7% of total employment) it is the largest of the priority sectors. However, employment in the sector is under represented when compared with nationally and has experienced decline in recent years. Between 2009 and 2012, the sector experienced a loss of over 12,000 jobs (-15.6%). This is highest proportionate decline and second highest net decline of the priority sectors and nationally, the sector has experienced employment growth (3%). The decline was driven by the majority of sub-sectors, with two of six sub-sectors experiencing employment growth in this period (accommodation and travel agencies and tour operators).

There is the potential to increase employment by exploiting new opportunities and markets, such as the growth of cycling as a leisure pursuit, the crescent restoration in Buxton, one of England's leading spa towns, and the development of assets such as Sherwood Forest, Cresswell Crags, Derwent Valley Mills, Newark's National Civil War Centre and the Nottingham Castle Project. Other opportunities for growth in the sector include the business tourism market, festivals and events, tactical marketing, branding and gateways and hubs.

D2N2 Visitor Economy				
Sub-sector	Employment		Change 2009-2012	
	2009	2012	No	%
Food and beverage service activities	44,600	38,900	-5,700	-12.9%
Sports activities, amusement & recreation	13,800	10,400	-3,400	-24.3%
Accommodation	8,400	9,600	1,200	13.8%
Libraries, archives, museums & other culture	3,900	3,600	-300	-7.2%
Travel agency, tour operator and other	1,700	1,900	200	12.2%
Creative, arts and entertainment activities	4,900	900	-4,100	-82.2%
Visitor Economy	**77,400**	**65,300**	**-12,100**	**-15.6%**
Source: BRES				

CREATIVE INDUSTRIES

The products and services offered by creative industries are part of our everyday lives and include television, cinema, radio and music production, media and advertising, computer software and games and publishing. The competitiveness of the sector often relies less on price but on the quality and imagination of the work. Creative industries also brings wider benefits by adding value to other industries through design, advertising and branding, contributing to the regeneration of towns and cities and bringing communities together through creative activities. The sector in

D2N2 employs 26,700 people (3.1% of total employment). It has experienced decline in recent years, with a loss of over 11,000 jobs between 2009 and 2012. This is the largest proportionate decline of the priority sectors in this time (-29.7%). The majority of creative sub-sectors experienced decline with a high proportion of the job losses are accounted for by the advertising sub-sector (which experienced a loss of 3,100 (85.1%) between 2009 and 2011) and the performing arts sub-sector (2,000 net jobs, 84.9%) In contrast the specialist design activities sub-sector has performed relative well in this period, with employment in 2012 over twice that in 2009.

Particular employment specialisms in D2N2 lie in computer and software (especially in computer gaming and medical technology applications). There are opportunities for growth across the cities and counties, with Nottingham's Creative Quarter and Cromford Mills (within the Derwent Valley Mills World Heritage Site) just two such examples along with the key role of enhanced digital connectivity.

D2N2 Creative Industries				
Sub-sector	Employment		Change 2009-2012	
	2009	2012	No	%
Computer consultancy activities	7,900	6,400	-1,400	-18.3%
Printing (other than printing of newspapers and printing on labels and tags) nec	4,200	4,200	100	1.5%
Computer programming activities	3,100	3,000	-200	-5.3%
Other information technology and computer service activities	3,200	2,000	-1,300	-39.5%
Specialised design activities	700	1,600	900	128.9%
Architectural activities	1,300	1,200	-100	-9.3%
Motion picture projection activities	900	900	0	-5.2%
Photographic activities	500	600	100	14.2%
Manufacture of knitted and crocheted hosiery	500	600	100	11.7%
Manufacture of underwear	700	600	-100	-19.5%
Motion picture, video and television programme production activities	1,000	600	-400	-42.6%
Manufacture of other outerwear	600	500	-100	-20.1%
Publishing of newspapers	1,100	500	-500	-51.6%
Advertising agencies	3,600	500	-3,100	-85.1%
Manufacture of other wearing apparel and accessories	300	400	0	11.5%
Pre-press and pre-media services	500	400	0	-7.2%
Manufacture of other knitted and crocheted apparel	500	400	0	-9.6%
Artistic creation	1,800	300	-1,500	-83.2%
Performing arts	2,300	300	-2,000	-84.9%
Publishing of journals and periodicals	100	200	100	97.9%
Radio broadcasting	100	200	100	52.8%
Operation of arts facilities	700	200	-500	-73.1%
Other software publishing	100	100	0	5.5%
Retail sale in commercial art galleries	100	100	0	-14.9%
Sound recording and music publishing activities	100	100	0	-28.8%
Manufacture of workwear	200	100	0	-32.5%
Other publishing activities	200	100	-100	-38.2%
Motion picture, video and television programme post-production activities	200	100	-100	-55.4%
Book publishing	400	100	-300	-71.3%
Media representation	600	100	-500	-76.9%
Support activities to performing arts	100	0	-100	-68.7%
Manufacture of luggage, handbags and the like, saddlery and harness	100	0	-100	-80.2%
Creative Industries	**37,900**	**26,700**	**-11,300**	**-29.7%**
Source: BRES				

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TRANSPORT AND LOGISTICS

D2N2 is well placed for transport and logistics operations, given its location at the heart of the country providing good access to road, rail and air transport infrastructure. Key assets which benefit the D2N2 economy (although located outside the D2N2 area) include East Midlands Airport and the proposed strategic rail freight hub to the north of the airport, and the HS2 line will run through D2N2 with a proposed station at Toton.

The sector definition captures employment in all forms of transport, as well as warehousing and couriering. However this does not capture employment in the distribution and logistics arm of large businesses that are classified under other sectors and therefore the total employment figure may be larger than that shown below. The sector makes a significant contribution to the success of many other sectors, providing the means through which supplies are obtained and goods are transported to markets locally, nationally and internationally, and is also closely associated with the transport equipment manufacturing sector.

The transport and logistics sector accounts for 28,600 jobs in D2N2 (3.3% of total employment) and is the third largest priority sector. The sector has declined in employment terms in recent years (600 jobs, -2%), although there is a mix of growing and declining sub-sectors. The warehousing sub-sector experienced substantial growth with over 4,000 additional employees between 2009 and 2012 (59.8%), particularly in Amber Valley. This growth was countered by a decline in all other sectors, especially couriering (2,700 jobs) and land transport (1,900). Within the D2N2 area, major employers include East Midlands Trains (based in Derby), and new employers, such as Kuehne & Nagel Drinkflow Logistics, are being attracted to the area.

D2N2 Transport and Logistics				
Sub-sector	Employment		Change 2009-2012	
	2009	2012	No	%
Land transport and transport via pipelines	18,100	16,200	-1,900	-10.5%
Warehousing and support activities for transportation	6,900	11,000	4,100	59.8%
Other postal and courier activities	4,000	1,300	-2,700	-66.5%
Water transport	<100	<100	-<100	-66.7%
Air transport	200	<100	-<100	-55.0%
Transport and Logistics	**29,200**	**28,600**	**-600**	**-2.0%**
Source: BRES				

LOW CARBON ECONOMY

Climate change has been identified as the key challenge of the 21st Century by the government. With ambitious and legally binding challenges set in relation to carbon reduction to 2050, the significance of the policy agenda is applicable to all LEP areas. The significance of climate change and the low carbon economy is also likely to present commercial opportunities for the D2N2 business base either through the development and provision of low carbon goods and services, or through savings in areas such as energy or waste reduction.

The low carbon economy is a varied sector incorporating a cross-cutting series of practices and technologies. It includes traditional environmental solutions such as waste management and recycling, together with renewable energy technologies (e.g. wind, tidal, geothermal and biomass). There are also a series of other emerging low carbon activities such as nuclear energy, carbon capture and storage and energy management and the sector also cuts across a number of other areas, notably construction, manufacturing and transport equipment.

Given the nature of the activities, processes and technologies that comprise the low carbon sector, the sector is difficult to define using SIC codes. Recent research has estimated that in D2N2 there are 28,700 employees in the low carbon goods and services sector[1] and the area also has

[1] Low Carbon Environmental, Goods and Services, Report for 2011/12, Department for Business Innovation and Skills, July 2013.

considerable research and business strengths in the sector. Previous research has found that whilst power generation is a significant activity in the D2N2 area, generation from renewable sources is more limited. The area has existing strengths in the low carbon vehicles and fuels sector, including Toyota and Rolls Royce. The D2N2 area importantly also has significant research expertise in this area[2].

A Commentary on the D2N2 Low Carbon Goods and Services Sector	
Sub-sector	**Commentary**
Power Generation	Traditionally fuelled by the coalfields of Derbyshire and Nottinghamshire, where power stations continue to contribute a significant amount of the UK's generating capacity. Major gas fired power station development nearby in Burton-on-Trent likely to provide opportunities for D2N2 businesses. The renewables sector is less significant in D2N2 area due to natural assets. Wind power is limited but there is more hydropower. The Energy Technology Research Institute at the University of Nottingham is a key research centre for research into biomass and solar technologies. Presence of some businesses in the supply chain to the nuclear generation sector.
Low Carbon Buildings	Construction is a major activity, and identified growth sector, within the D2N2 economy and there are a number of companies involved in the sustainable construction sector. There is a Sustainable Technologies Group at the University of Nottingham focused on research into sustainable building design, photovoltaics, solar thermal systems, earth construction and biomass.
Carbon Capture and Storage	The carbon capture and storage sector is an emerging sub-sector within D2N2 and has potential with a number of key research assets including the British Geological Survey, a European centre of excellence into carbon dioxide storage, and the University of Nottingham Centre for Innovation in Carbon capture Storage and the energy Technologies Research Institute.
Low Carbon Vehicles and Fuels	This includes all sectors associated with alternative vehicles (e.g. hybrid and electrical vehicles), fuel cells and other alternative fuel technologies. The share of the market for these types of vehicles are still small but growing. Research is also undertaken by the Advanced Materials Research Group and the Hydrogen Storage Group at the University of Nottingham.
Environmental Services	Includes activities related to air pollution, environmental consultancy, environmental monitoring, noise and vibration control, contaminated land, waste management, water and waste water, carbon finance and recycling and recovery. The area's universities (Derby, Nottingham and Nottingham Trent) all have research interests in these areas.

The sector presents the D2N2 economy, as with a number of LEP areas, a variety of opportunities for both employment generation and to reduce carbon emissions. As with advanced manufacturing the growth will come from a number of sources, although the balance in volume terms will differ with regards to business expansion and exporting. In the case of low carbon, business expansion is likely to be the largest source based on existing companies diversifying into low carbon markets. While there will be a global market to serve leading to job creation linked to increased exporting activity, many of the opportunities will relate to UK based activity and the decarbonisation of local activities.

In addition, growth through start ups and spin outs will be driven by research and development, innovation and knowledge transfer activity – of which there are a number of strengths in the D2N2 area. FDI/inward investment growth will be based upon the area's reputation for advanced manufacturing and the skilled workforce and support infrastructure available.

[2] Report 3: The D2N2 Economy, prepared by the Economic Strategy Research Bureau, Nottingham Business School, Nottingham Trent University, December 2011.

2.4 Other Sectors

There are three other sectors that are important to the D2N2 economy – financial, business and professional services, ICT and digital and advanced manufacturing these are discussed in this section.

FINANCIAL, PROFESSIONAL AND BUSINESS SERVICES

The financial, professional and business services sector accounts for 147,800 jobs in D2N2 (16.9% of the total). The sector is concentrated in Nottingham which is home to some major business services companies such as Capital One and Experian. The largest sub-sector is employment activities (e.g. recruitment consultants) (46,100 jobs), however as noted previously, this is potentially misleading. Employment in all other sub-sectors is under represented or of average representation and the overall employment in the sector is under represented compared to the national average.

Financial, Professional and Business Services 2012				
Sub-sector	D2N2		East Midlands %	England %
	Employees	%		
Employment activities	46,100	5.3%	4.8%	3.2%
Architectural and engineering activities	13,300	1.5%	1.3%	1.5%
Activities of head offices; management consultancy	12,700	1.5%	2.2%	2.1%
Office administrative, office other business support	12,600	1.4%	1.4%	1.3%
Legal and accounting activities	10,600	1.2%	1.3%	2.1%
Services to buildings and landscape activities	9,000	1%	1.3%	2.4%
Real estate activities	8,800	1%	0.9%	1.6%
Financial service activities, ex. insurance/pensions	7,300	0.8%	1.2%	1.9%
Other professional, scientific and technical activities	5,300	0.6%	0.7%	0.6%
Security and investigation activities	4,700	0.5%	0.4%	0.7%
Activities auxiliary to financial services and insurance	4,700	0.5%	0.5%	1.7%
Rental and leasing activities	4,200	0.5%	0.5%	0.5%
Travel agency and tour operator activities	1,900	0.2%	0.2%	0.4%
Advertising and market research	1,800	0.2%	0.2%	0.7%
Veterinary activities	1,800	0.2%	0.2%	0.2%
Scientific research and development	1,500	0.2%	0.2%	0.4%
Insurance, reinsurance and pension funding	1,500	0.2%	0.1%	0.4%
Financial, Professional and Business Services	**147,800**	**16.9%**	**17.2%**	**21.8%**
Source: BRES				

In recent years, employment in the financial, professional and business services sector has increased slightly with a net increase of 1,600 jobs between 2009 and 2012 (1.1%). There is considerable variation in employment change at the sub sector level. Excluding the increase in employment in the employment activities sub-sector (9,900 net jobs) (as noted above, this rise is potentially misleading), the key sub-sectors that have increased in employment include other professional, scientific and technical activities (2,100), insurance, reinsurance and pension funding, except compulsory social security (1,200) and activities auxiliary to financial services and insurance activities (1,000). These increases have been countered by losses across several other sub-sectors.

D2N2 Financial, Professional and Business Services 2009 - 2012				
Sub-sector	Employees		Change 2009-2012	
	2009	2012	No	%
Employment activities	36,100	46,100	9,900	27.5%
Other professional, scientific and technical activities	3,100	5,300	2,100	68.3%
Insurance, reinsurance and pension funding, except compulsory social security	200	1,500	1,200	579.9%
Activities auxiliary to financial services and insurance activities	3,700	4,700	1,000	26.9%
Architectural and engineering activities; technical testing and analysis	12,400	13,300	900	7.6%
Security and investigation activities	4,100	4,700	600	13.5%
Veterinary activities	1,300	1,800	500	38.9%
Rental and leasing activities	4,000	4,200	200	4.1%
Travel agency, tour operator and other reservation service and related activities	1,700	1,900	200	12.2%
Office administrative, office support and other business support activities	12,600	12,600	-<100	-0.2%
Scientific research and development	1,800	1,500	-200	-12.9%
Services to buildings and landscape activities	10,000	9,000	-900	-9.4%
Legal and accounting activities	119,000	10,600	-1,200	-10.2%
Activities of head offices; management consultancy activities	14,100	12,700	-1,400	-9.8%
Financial service activities, except insurance and pension funding	9,200	7,300	-1,900	-20.7%
Advertising and market research	5,000	1,800	-3,300	-64.8%
Real estate activities	14,900	8,800	-6,200	-41.3%
Financial, Professional and Business Services	**146,200**	**147,800**	**1,600**	**1.1%**
Source: BRES				

ICT AND DIGITAL

The ICT and digital sector includes a range of computing and telecommunications activity, a small proportion of which (computer programming and consultancy) is captured in the creative industries sector. In total, the ICT and digital sector accounts for 18,700 employees in D2N2. At 2.1% of total employment, the sector is relatively small and is under represented compared to the national average (3%), although it is over represented at the regional level (1.6%). The sector is comprised of a series of telecommunication, data services and computer manufacturing and service activities, the largest of which are computer consultancy activities (6,400 employees), data processing (3,700) and computer programming (3,000). In recent years, employment in the sector has fallen by 11%, driven primarily by a decline in computer consultancy (1,500 net jobs) and other information technology and computer service activities (1,200).

DRAFT

D2N2 ICT and Digital Sector 2009-2012				
Sub-sector	Employees		Change 2009-2012	
	2009	2012	No	%
Computer consultancy activities	7,900	6,400	-1,500	-19%
Data processing, hosting and related activities	3,100	3,700	600	19%
Computer programming activities	3,100	3,000	-100	-3%
Other telecommunications activities	3,300	2,800	-500	-15%
Other information technology and computer service activities	3,200	2,000	-1,200	-38%
Wired telecommunications activities	100	300	200	200%
News agency activities	100	200	100	100%
Manufacture of computers and peripheral equipment	100	200	100	100%
Other information service activities n.e.c.	100	0	-100	-100%
ICT and Digital	**21,000**	**18,700**	**-2,300**	**-11%**
Source: BRES. *****Satellite telecommunications activities, wireless telecommunications activities, computer facilities management activities and web portals excluded as employment numbers cannot be disclosed.				

ADVANCED MANUFACTURING

As mentioned previously in this report, manufacturing is a key strength in the D2N2 economy and supporting advanced manufacturing sub-sectors and continuing to grow the area's export intensive industries is an important opportunity for economic growth. Advanced manufacturing is defined by Working Futures as production of metals, rubber and plastic products, mineral products, chemicals, electrical and computers[3]. It should be noted that transport manufacturing, a significant strength of the D2N2 economy, is not included in this definition.

In D2N2, the advanced manufacturing sector accounts for nearly 55,000 employees and the sector is over represented when compared with the East Midlands and England. The area has particular strengths in metal production and rubber and plastic products.

Advanced Manufacturing Sector 2012				
Sub-sector	D2N2		East Midlands %	England %
	Employees	%		
Manufacture of fabricated metal products, except machinery and equipment	18,600	2.1%	0.0%	0.0%
Manufacture of rubber and plastic products	9,900	1.1%	0.5%	0.4%
Manufacture of machinery and equipment.	7,300	0.8%	1.1%	0.5%
Manufacture of other non-metallic mineral products	6,400	0.7%	0.5%	0.3%
Manufacture of chemicals and chemical products	4,700	0.5%	0.2%	0.2%
Manufacture of electrical equipment	3,200	0.4%	1.7%	1.1%
Manufacture of computer, electronic & optical products	2,700	0.3%	0.4%	0.4%
Manufacture of basic metals	2,000	0.2%	0.4%	0.3%
Advanced Manufacturing	**54,800**	**6.3%**	**5.9%**	**4.0%**
Source: BRES				

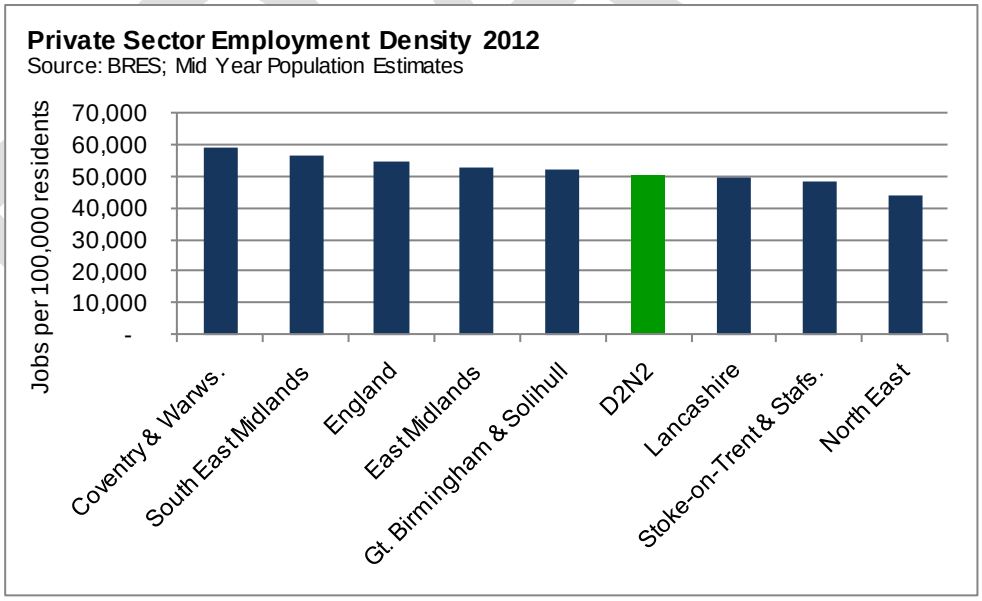
The sector has suffered job losses in recent years, however D2N2 has faired better than the national average. During the period 2009 to 2012, the sector declined by 2.8% with the loss of 1,600 jobs, compared to 4.3% nationally. This overall trend hides considerable sub-sector variation, with the manufacture of other non-metallic mineral products sub-sector, the largest in D2N2 and the most highly represented, accounting for the vast majority of the jobs which were lost (3,800, -37.4%). Other sub-sectors experienced reasonable net and proportionate employment growth, including manufacture of rubber and plastic products (1,800 jobs, 22.6%) and manufacture of machinery and equipment (1,700 jobs, 30.6%).

[3] Manufacturing and Knowledge Economy Report, Working Futures

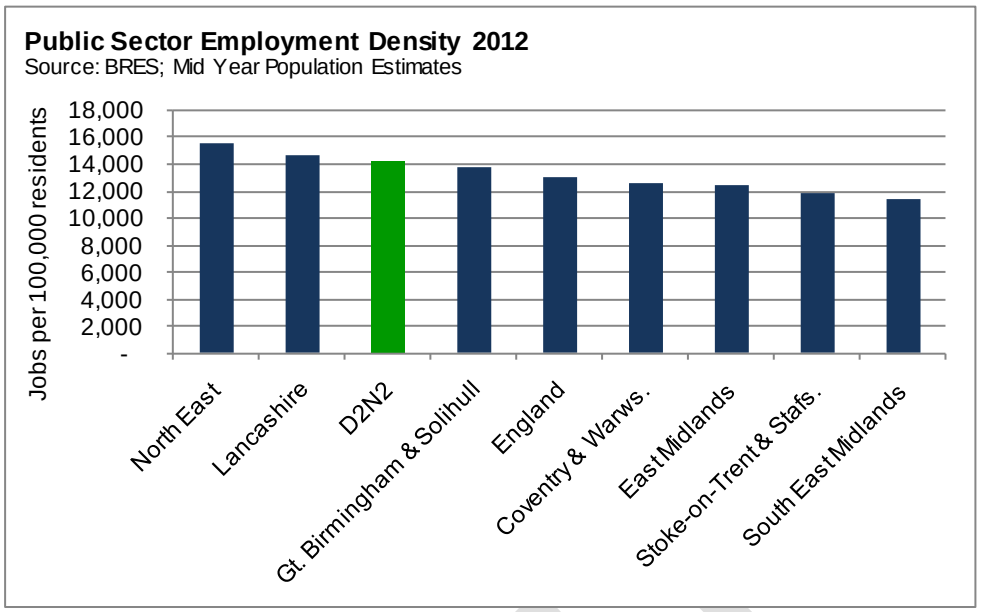
D2N2 Advanced Manufacturing Sector 2009-2012				
Sub-sector	Employees		Change 2009-2012	
	2009	2012	No	%
Manufacture of rubber and plastic products	8,100	9,900	1,800	22.6%
Manufacture of machinery and equipment	5,600	7,300	1,700	30.6%
Manufacture of computer, electronic and optical products	2,300	2,700	400	15.6%
Manufacture of basic metals	1,900	2,000	<100	1.3%
Manufacture of chemicals and chemical products	5,000	4,700	-300	-6.3%
Manufacture of electrical equipment	3,800	3,200	-600	-15.0%
Manufacture of fabricated metal products, except machinery and equipment	19,400	18,600	-800	-4.1%
Manufacture of other non-metallic mineral products	10,200	6,400	-3,800	-37.4%
Advanced Manufacturing	**56,300**	**54,800**	**-1,600**	**-2.8%**
Source: BRES				

2.5 Private Sector and Public Sector Employment

The government has a clear policy focus on growing the private sector employment base, to both boost economic growth and decrease dependency on the public sector, particularly where this is now in decline. There is an imperative to grow the private sector employment base in D2N2. Further analysis of the D2N2 employment density gap noted in the previous section shows that this shortfall relates to the private sector. With 50,000 private sector jobs per 100,000 residents, D2N2 has a relatively small private sector economy when compared with its peer group and neighbouring LEPs. The difference between the LEP area and the national average is substantial, equating to nearly 4,700 per 100,000 residents. In order to meet the national average, there would need to be an additional 63,800 private sector jobs within the D2N2 economy. Narrowing this gap is one of the fundamental challenges facing the LEP and its partners over the coming years.



Conversely, the D2N2 economy has a high density of public sector jobs. There are 14,200 public sector jobs per 100,000 residents, which is amongst the highest of the comparator LEP areas and higher than the national average density (13,000). This is despite a decline in public sector jobs in recent years of 3.4% (7,000 net jobs), which is slightly lower than the decline experienced nationally (5.1%).

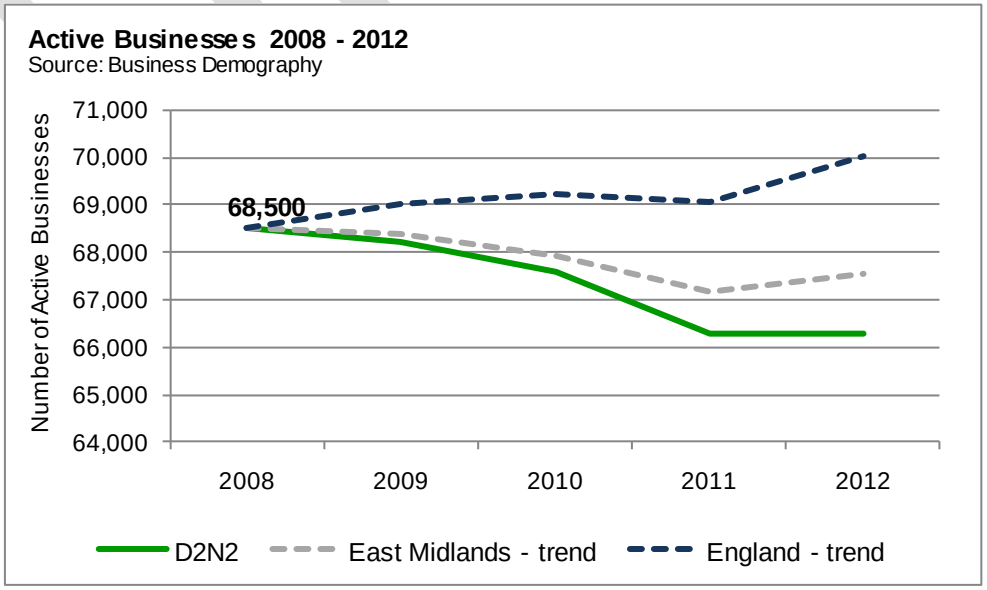


In recent years, D2N2 has seen employment growth in the private sector. The balance of public and private employment in the D2N2 economy has shifted slightly, from 23% public sector and 77% private sector in 2009 to 22% public sector and 78% private sector in 2012. This is due to both an increase in private sector jobs (8,200, 1%) and decline in public sector jobs (6,900, -3%). The national economy has also experienced a similar shift from 20% public sector and 80% private sector in 2009 to 19% public sector and 81% private sector in 2012.

2.6 Business Base and Enterprise

RECENT DECLINE IN THE D2N2 BUSINESS BASE

In the period of growth leading up to the financial crash, the number of active businesses within the D2N2 area grew year on year to 2008 when it peaked at 68,500. Since then, between 2008 and 2011 the business base shrunk slightly by 3.2% to 66,290 and remained at this level in 2012 (66,275). The impact of the recession on the number of businesses has been more severe in D2N2 than either the East Midlands or nationally. Since 2011 the business base has been on an upward trajectory in the East Midlands and England, whilst no increase has been recorded in the D2N2 area.



POSITIVE SURVIVAL RATES BUT LOW BIRTH RATES

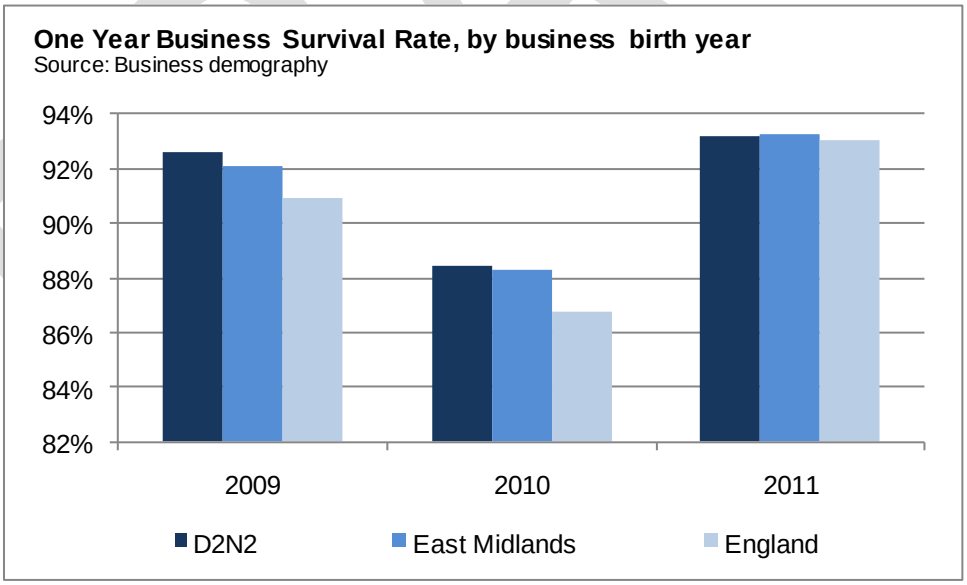
In 2012, the business start up rate in the D2N2 economy was 10%, which is below the regional and national average (11% and 12% respectively). The start up rate fell slightly during the downturn, with a 1% point fall between 2008 and 2010, but had risen again to 2008 levels in 2011 and 2012. This is in line with the regional and national trend.

Business Start Up Rate 2008 – 2012, business births as a % of the business base					
	2008	2009	2010	2011	2012
D2N2	10%	9%	9%	10%	10%
East Midlands	11%	9%	9%	10%	11%
England	12%	10%	10%	11%	12%
Source: Business Demography					

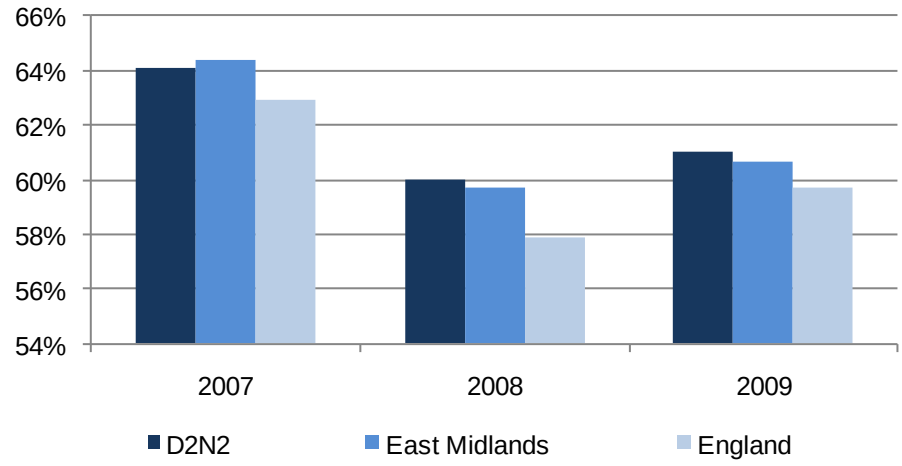
In terms of absolute numbers of business births, there were 6,815 in D2N2 in 2012. The trend over time shows that business births fell between 2008 and 2010, from 7,070 to 6,075. However, business births have since started to rise, and compared with 2008, the number of births in 2012 is slightly below this level (-3.6%). However, at its height in 2005, D2N2 economy saw nearly 9,000 business births and the number of births in 2012 is two thirds of this peak.

Business Start Ups					
	2008	2009	2010	2011	2012
D2N2	68,500	68,225	67,570	66,290	66,275
Source: Business Demography					

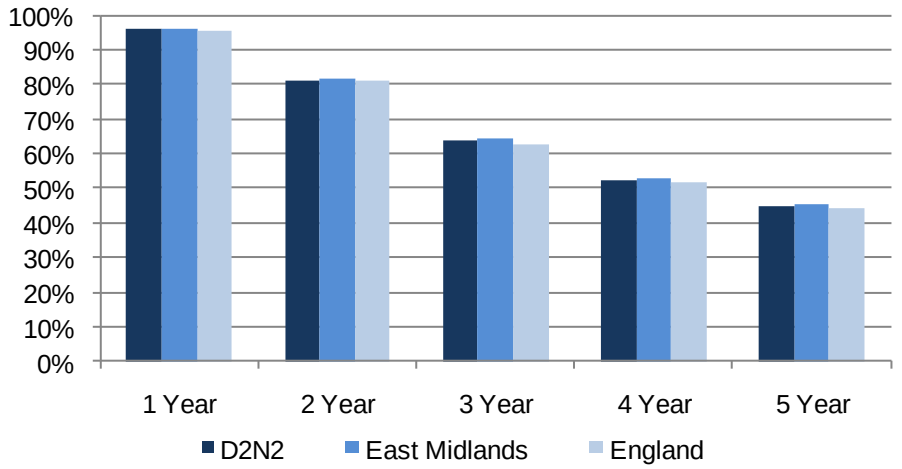
Business survival rates in the D2N2 economy are generally above or in line with the national average. In 2012, at the one and three year marks, D2N2 has a better business survival rate compared to the national average and is business survival is slightly higher than the national rate at five years. The economy proved resilient in the downturn despite the lower start up rates, with a higher proportion of businesses born in 2008 and 2009 surviving to one and three years.



Three Year Business Survival Rate, by business birth year
Source: Business Demography

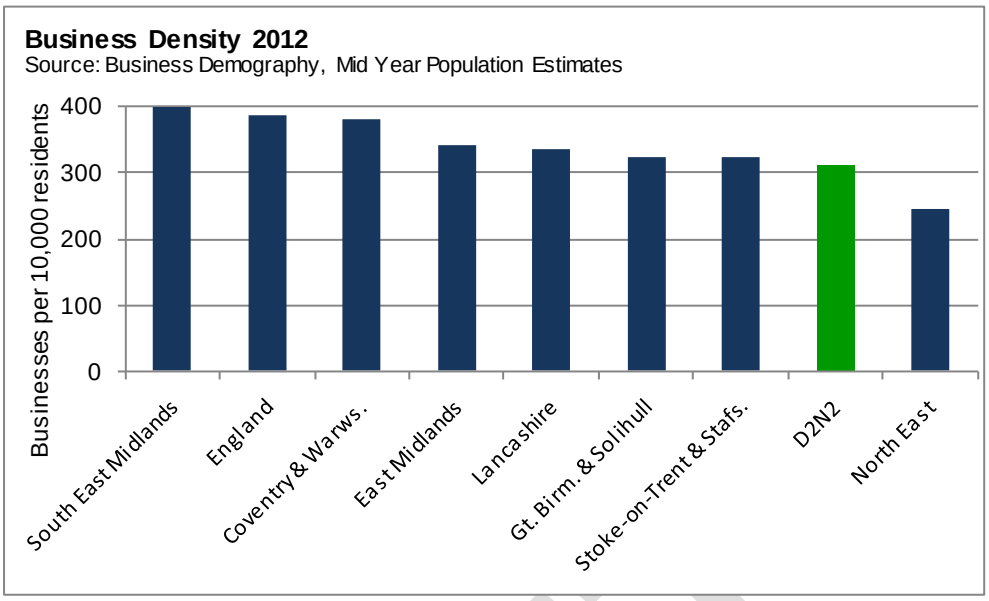


5 Year Business Survival Rate - Businesses born in 2007
Source: Business Deomgraphy 2012

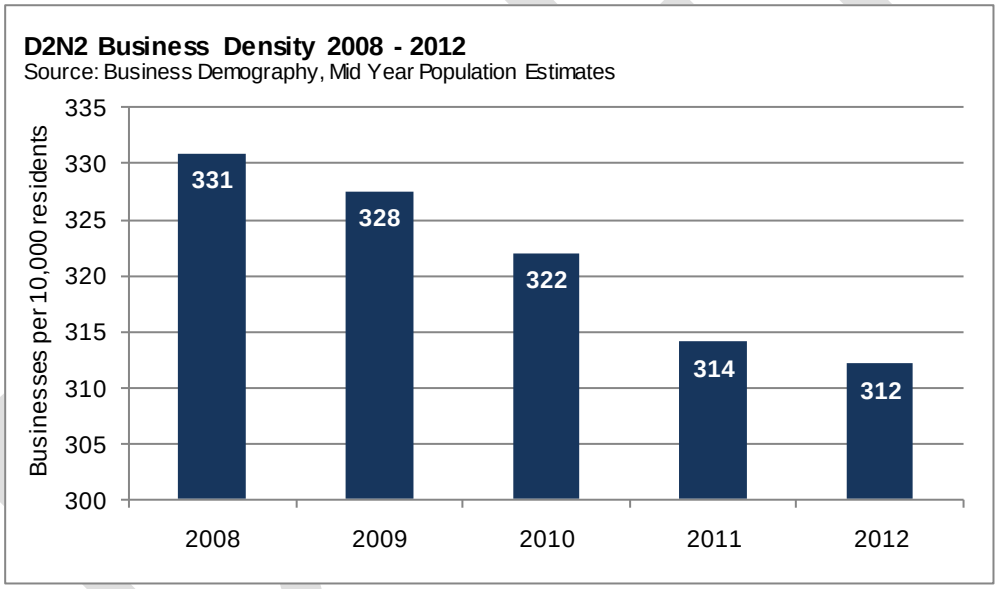


BUSINESS DENSITY GAP

Whilst D2N2 is one of the largest economies, for the size of its working age population it continues to have a relatively small business base. In 2012, the D2N2 economy has 312 businesses per 10,000 population compared with 399 nationally and fell behind the majority of comparator LEP areas on this measure.



Business density has fallen over the course of the downturn and is yet to pick up in more recent years. Between 2008 and 2012, business density fell by 19 businesses per 10,000 residents. In comparison, the national average fell by 4 businesses per 10,000 residents.



THE PRESENCE OF A NUMBER OF MAJOR EMPLOYERS

The make up of the D2N2 economy by business size is largely in line with regional and national averages as set out in the table below. The area is home to 255 businesses employing over 250 people, whilst micro and small firms account for 98% of all businesses. Between 2008 and 2013, this profile has remained reasonably static and there has been very little change in the sizeband profile

Businesses by Sizeband 2013				
Business size	D2N2		East Mids	England
	No.	%	%	%
Micro (1-9 employees)	52,200	87%	88%	88%
Small (10-49 employees)	6,360	11%	10%	10%
Medium (50-249 employees)	1,155	2%	2%	2%
Large (250+ employees)	255	0%	0%	0%
Source: UK Business: Size, Activity, Location				

2.7 Self Employment

In 2012, just over 10% of residents in D2N2 were self employed (108,200 individuals). This is lower than both the regional and national rates, reflecting the low levels of business start ups reported previously. In recent years, the number of self employed residents in D2N2 has increased but at a lower rate than the regional and national rise.

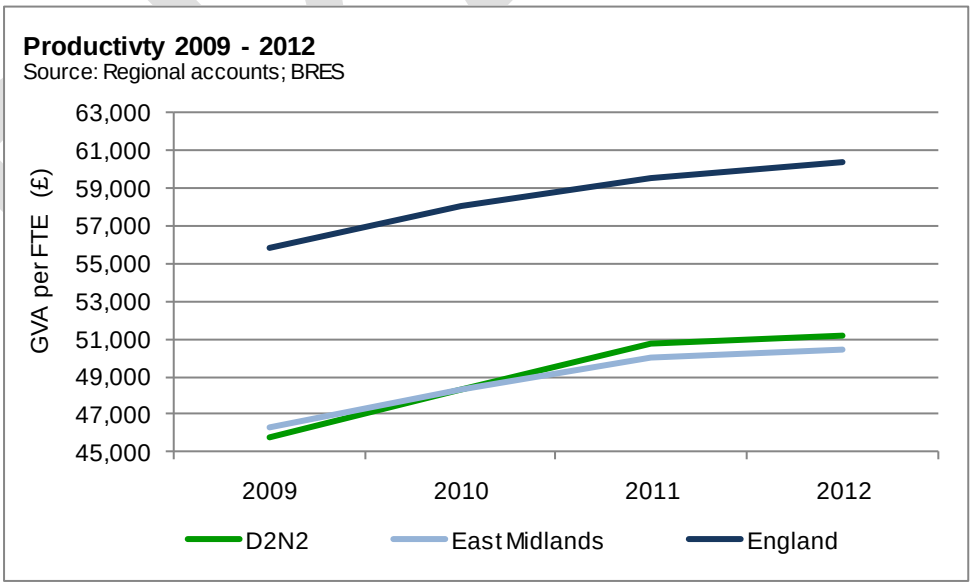
D2N2 Self Employment 2008 - 2012						
	2008		2012		Change 2008 - 2012	
	No.	%	No.	%	No.	%
D2N2	99,600	10.2%	108,200	11.3%	8,600	8.6%
East Midlands	223,900	10.7%	258,100	12.6%	34,200	15.3%
England	3,021,800	12.6%	3,296,300	13.8%	274,500	9.1%
Source: Annual Population Survey						

2.8 Productivity

LOW AVERAGE GVA

The D2N2 economy generated approximately £37 billion of Gross Value Added (GVA) in 2012, stemming from 722,300 full time equivalent (FTE) employee. The D2N2 GVA per FTE figure is £51,200, over £9,000 behind the England average. Productivity in D2N2 is 85% of the national average and this low level of productivity stems from the LEP's employment sector mix. As detailed earlier in the chapter, D2N2 has below average representation of employment in high value sectors such as finance, professional and business services and information and communications.

In recent years, the productivity of the D2N2 economy has increased. Between 2009 and 2012, GVA in D2N2 has risen by £5,400 per FTE, this is higher than both the regional and national increases (£4,100 and £4,500 respectively). Between 2011 and 2012, productivity has increased but at a slower rate than that experienced previously and the rate of growth was in line with the national average.



2.9 Trade and Investment

ONE OF THE TOP PERFOMING LEPS IN TERMS OF FDI JOB CREATION

The statistics on trade and investment which were presented in the 2013 State of the Economy report remain the most recent available. The key points to note from the information that was previously reporting includes:

- **D2N2 is one of the highest performing LEPs in terms of job creation through foreign direct investment:** During 2011/12, 2,299 job created were recorded from FDI which places it fifth amongst the 39 LEPs in the country (although in part this reflects the large size of the D2N2 economy). However whilst despite their importance in employment terms, foreign owned businesses are underrepresented when compared with other LEP areas.
- **D2N2 has high levels of employment in export intensive industries:** The sectoral profile of the D2N2 economy means that it has strengths in export intensive industries. Just under a fifth of employment in D2N2 is within export intensive industries, placing it towards the top tier of LEPs in terms of exporting (11 out of 39 LEPs).

2.10 Access to Finance

SUPPLY OF FINANCE

Since the 2008 financial crash, lending to businesses has fallen and remains low, which has had knock on effects on business growth. Whilst there are positive signs of recovery and banks are responding to the growing demand for finance, the supply of credit remains subdued.

In terms of alternate sources of finance in D2N2 area aside from banks, the Enterprise Finance Guarantee (EFG) is currently being offered by regional commercial banks as loan guarantee scheme (up to £1 million) to facilitate lending to viable businesses that have been turned down for a normal commercial loan due to a lack of security or a proven track record. In addition, a number of Community Development Finance Institution in the East Midlands (Enterprise Loan East Midlands; Midlands Community Finance; Fredericks Foundation) offers loans. Finance has also be obtained from national programmes such as the Regional Growth Funds and Growing Places Fund. Whilst there is supply of credit available within the East Midlands market, more availability of finance would be welcomed to meet the growing demand.[4]

DRAFT

[4] Business Finance Market Analysis and Product Development, Mazars, 2013.

3 Innovation

Key Point Summary

- **Innovation environment:** The presence of universities, highly skilled people and a knowledge intensive sector mix are all key environmental factors for fostering innovation:
  - Universities have a key role to play in innovation and there are three in D2N2 - the University of Derby, the University of Nottingham and Nottingham Trent University. Each of these are high calibre research and education institutions with strengths in psychology and mechanical, aeronautical and manufacturing engineering (Derby), business and medicine (Nottingham) and work based education and training, knowledge transfer activities and managed networks (Nottingham Trent).
  - Human capital in the form of ideas generation and talent are key to driving innovation. Two fifths of the D2N2 workforce are employed in highly skilled occupations (39.5%) and within this group, 4.5% are employed as science, research, engineering and technology professionals. These occupations are however underrepresented in the D2N2 area in comparison to the national average (44.2% and 5.3% respectively).
  - D2N2 performs well in terms of employment in knowledge intensive manufacturing sectors.
- **Innovation inputs:** Innovation requires input from businesses in the form of investment (this information is taken from the UK Innovation Survey and is not available at the LEP level):
  - Nearly half of East Midlands businesses' spend on innovation was on acquisition of capital (48.4%), followed by internal R&D (24.7%) and innovation-related training (10.2%). The level of spend on R&D is comparatively low as businesses nationally committed 49.9% of innovation spend to this activity.
  - Despite the relatively small proportion of spend on R&D, a high proportion of East Midlands businesses have undertaken this activity (19.8%) – the highest of the northern and midlands regions and London.
- Finance is a key barrier to innovation including the high costs associated with innovation, economic risks and the availability and cost of accessing finance.
- **Innovation outputs** are the end products, services and process that will drive economic growth. In 2011, 38.9% of businesses had achieved innovation-related outputs which is marginally higher than the national average (37.1%) and higher than all but one of the regions outside of the East and South East.

Innovation is vital for economic growth and prosperity. Moving forward with knowledge, science and technology development and exploitation will be important for maintaining and enhancing D2N2's competitiveness. This chapter reviews the innovation system in D2N2, including the underpinning infrastructure and environment, the investment input and the resulting output. It draws on a report produced by Nottingham Trent University[5] and data from official statistical series.

3.1 Innovation Environment

KNOWLEDGE INFRASTRUCTURE

Universities play a key role in the innovation system by creating and maintaining knowledge via research and teaching, building capacity and skills, and developing innovation-relevant technologies and new forms of problem solving. There are three universities in the D2N2 area – the University of Derby, the University of Nottingham and Nottingham Trent University– which,

[5] Innovation in the D2N2 LEP Area: Baseline Analysis, Nottingham Trent University, March 2014.

combined, are home to around 80,000 national and international students. These institutions have a key role in supporting innovative companies through nationally leading sector research groups, targeted networking activities and licensing, joint ventures and setting up spinout activities.

The University of Nottingham is a globally recognised and world class research-led institution with over 30,000 students. Its business school and medical school are two of its particular strengths, and recent investments at the University have included a £7m biomedical sciences building and a £10m improvement to the Medical school. The University is also frequently placed within the top ten UK institutions in terms of business funding, reflected in the quality of its business focused research and ongoing relationships with major employers such as GlaxoSmithKlein, Ford and Rolls-Royce. The QMC/Nottingham University Hospital Trust is also one of the largest teaching hospitals in the UK.

The University of Derby has particular strengths in psychology and mechanical, aeronautical and manufacturing engineering, and has managed to build strong relationships with industry and major local employers. The University is also home to a number of active research centres and groups, including the health, nursing and therapeutic research group, the research centre for advanced innovation and management and the research centre for education and professional practice. In addition, it has invested over £75m in new facilities over recent years.

Nottingham Trent University has more than 24,000 students and was named as the top 'new' university in the Good University Guide. The University has an extensive network of national and international partnerships and has key strengths in work based education and training, knowledge transfer activities and managed networks (e.g. the Nottingham Knowledge Network and the Nottingham Creative Network). The University also has a £130m estates regeneration programme which will improve facilities across its campuses.

In addition to providing highly skilled graduates, the universities support the D2N2 economy by:

- Providing significant employment opportunities in their own right and facilitating the development of spin out companies and partnerships;
- Promoting the role of enterprise, innovation, knowledge transfer, and research and development;
- Bringing investment into the area, in terms of direct investment on land, buildings and equipment, attracting external funding and the expenditure of 80,000 students in the local economy;
- Promoting the area to a national and international audience; and
- Contributing to the widening participation agenda.

The universities also provide a ready supply of skilled graduates. Retaining more graduates in the D2N2 area (and attracting graduates who have studied elsewhere) would boost economic performance. Information on graduate destinations is presented in Chapter 4 Employment and Skills.

HUMAN CAPITAL

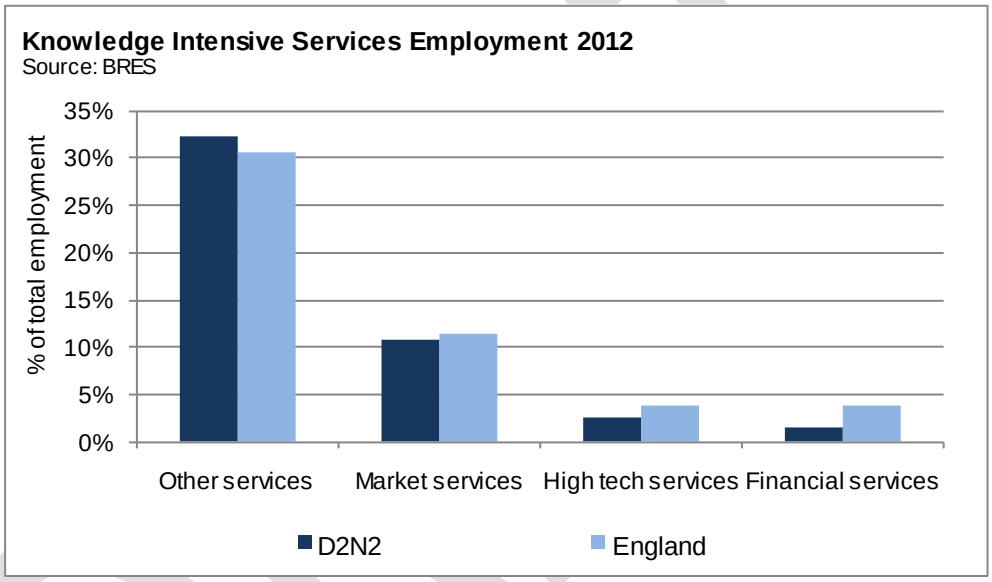
Innovation relies on the ideas of talented individuals. The new knowledge provided by skilled scientists and professionals within businesses and research institutions is what drives innovation. In D2N2, two fifths of the workforce are employed in highly skilled occupations (39.5%). This is defined as those employed in managerial, professional and associate professional occupations and is in line with the regional average (39.7%) but slightly below the England average (44.2%).

Skills in science, technology, engineering and mathematics (STEM) subjects have been linked to innovation and economic growth. The Perkins Review (2013) highlighted that innovative firms employed more STEM graduates and emphasised the need to inspire more young people to train in engineering and related subjects. Considering those employed as science, research,

engineering and technology professionals in the D2N2 area, this accounts for 4.5% of employment, which is slightly lower than the national average (5.3%).

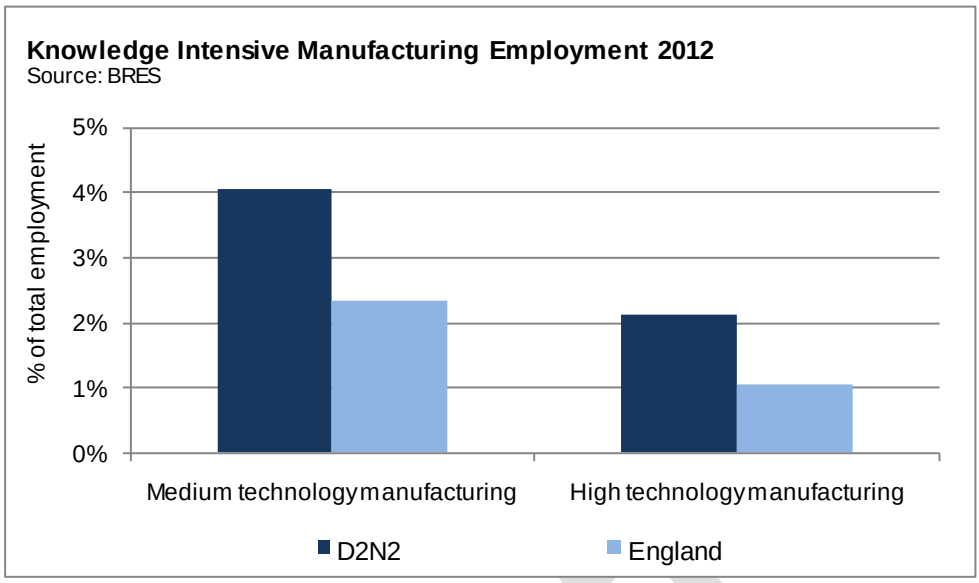
In the D2N2 economy, there are 466,600 employees in knowledge intensive industries (49% of total employment)[6]. This is in line with the national average and D2N2 is mid-ranking amongst the other LEPs on this indicator (14th out of 39 LEPs). The majority of knowledge intensive employment is in service sectors (88%), with the remainder in manufacturing sectors (12%). Reflecting the level of industrial activity, knowledge intensive employment in D2N2 is skewed towards manufacturing industries compared to the national profile (94% services and 6% manufacturing).

In D2N2, the majority of knowledge intensive services employment is accounted for by other services (32% of total employment) (including public sector, creative and personal services sectors), followed by market services (including professional and business services sectors) (11%), with lower levels of employment in high tech and financial services (3% and 2% respectively). D2N2 broadly mirrors the national profile of knowledge intensive services, although the area is slightly under represented in all but the other services sector.



D2N2 performs well in terms of employment in knowledge intensive manufacturing, reflecting the area's aforementioned strengths in this sector. In D2N2, medium technology manufacturing sectors account for 4.1% of total employment and high technology manufacturing sectors account for 2.1%, compared to 2.3% and 1% nationally.

[6] Knowledge based industries are similarly not defined in a single SIC code and employment estimates are aggregated from a range of two digit SIC codes. This report presents the data using the Eurostat definition.

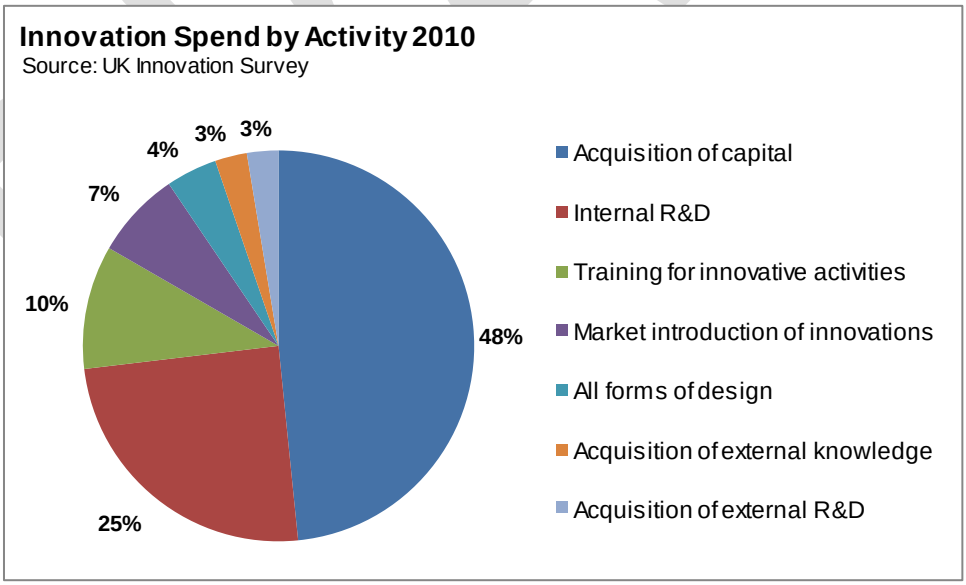


3.2 Innovation Inputs

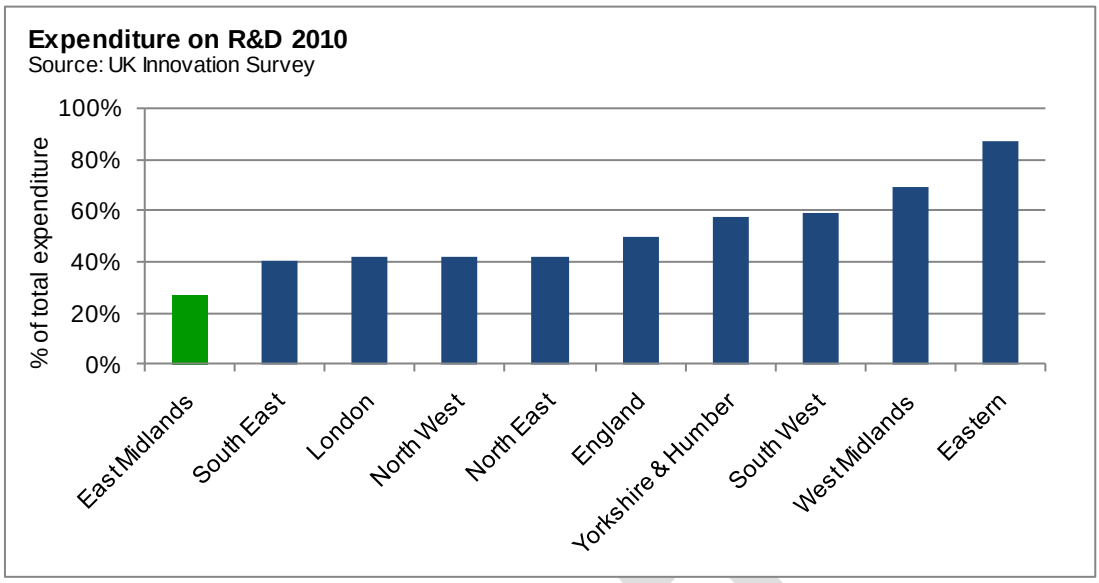
Innovation inputs are the investment that firms make in innovation. The UK Innovation Survey is the main business innovation survey in the UK and provides information on business innovation investment and the outputs generated. However the data is not publicly available below regional level and this section presents data for East Midlands. Given the size of the D2N2 economy (which accounts for approximately 46% of East Midlands total employment), it is reasonable to assume that the East Midlands picture is fairly representative of D2N2.

INVESTMENT IN INNOVATION

Nearly half of East Midlands businesses' spend on innovation was on acquisition of capital (48.4%), followed by internal R&D (24.7%) and innovation-related training (10.2%).



Considering spend on R&D, businesses in the East Midlands committed a lower proportion of their innovation expenditure to this activity compared to the national average and other regions. Business in the East Midlands spent 27.3% of their innovation expenditure on internal and external R&D, the lowest of nine regions and far below the national average (49.9%).



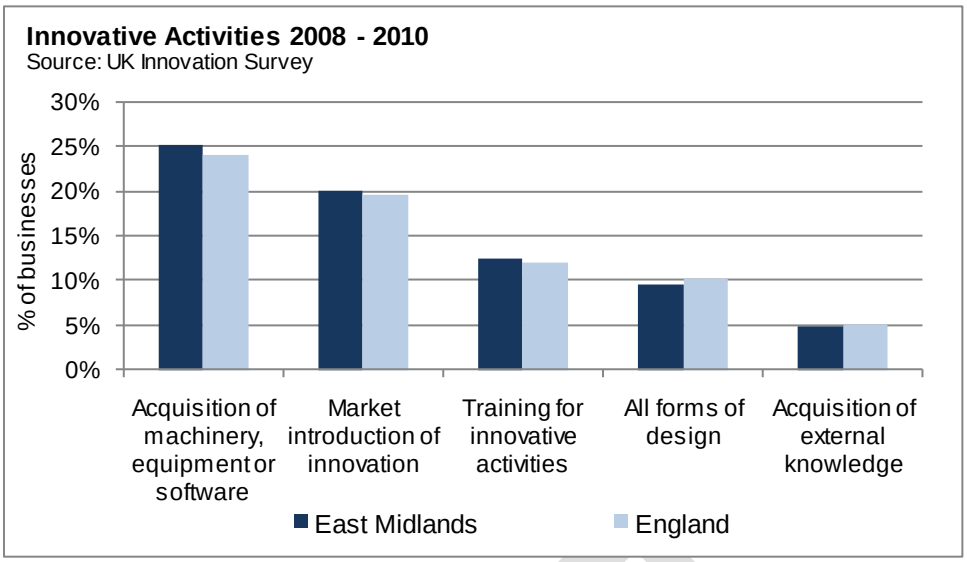
In terms of absolute spend on R&D, the Research and Development Inquiry shows that businesses in the East Midlands spent £1,203 million on R&D in 2012, placing the region 7th out of the nine regions.

INNOVATION ACTIVITY

Despite R&D accounting for a relatively small proportion of East Midland firms' expenditure, a comparatively high proportion of businesses have undertaken this activity. Between 2008 and 2010, nearly a fifth of businesses in D2N2 have undertaken some form of R&D (internally or external) (19.8%). While this is in line with the national average (19.7%), this average is affected by high levels of activity in the East and South East and the East Midlands has the highest proportion of businesses engaged in R&D outside these regions.

Internal and External R&D Activity 2008 - 2010			
	Internal R&D	Acquisition of external R&D	Total
South East	17.5%	6.6%	24.1%
East	16.2%	5.3%	21.6%
East Midlands	14.3%	5.5%	19.8%
England	14.5%	5.2%	19.7%
South West	14.2%	5.2%	19.4%
West Midlands	14.4%	4.7%	19.1%
North West	13.0%	5.8%	18.8%
North East	14.8%	3.2%	18.0%
London	12.9%	5.1%	18.0%
Yorkshire and Humber	12.7%	3.4%	16.2%
Source: UK Innovation Survey			

Aside from R&D, businesses in the East Midlands have undertaken a range of other related innovation activities and again the region performs relatively well on these indicators. This most commonly included acquisition of machinery, equipment and software (25.2%), market introduction of innovation (for example market research) (20.1%) and training for innovative activities (12.5%). The overall profile is in line with the national average, however the East Midlands is amongst the best performing regions against each of these indicators outside the East and South East.



DRIVERS AND BARRIERS

The UK Innovation Survey explored business drivers of innovation and the barriers they faced. Of those that were undertaking innovation activity, the main drivers of innovation were to improve the quality of goods and services (37.1%), increase market share (34.7%), increase the range of goods/services offered (32.1%) and to increase value added (23.9%). This is broadly in line with the national profile.

Financial factors are the key business barriers that prevent businesses from undertaking innovation. In the East Midlands and across England, the high costs associated with innovation, economic risks and the availability and cost of accessing finance are seen as barriers to innovation. In terms of variation across the business base, these barriers are shared by both businesses who were undertaking innovation and those that were not. SMEs however often reported greater barriers to innovation compared to their larger counterparts.

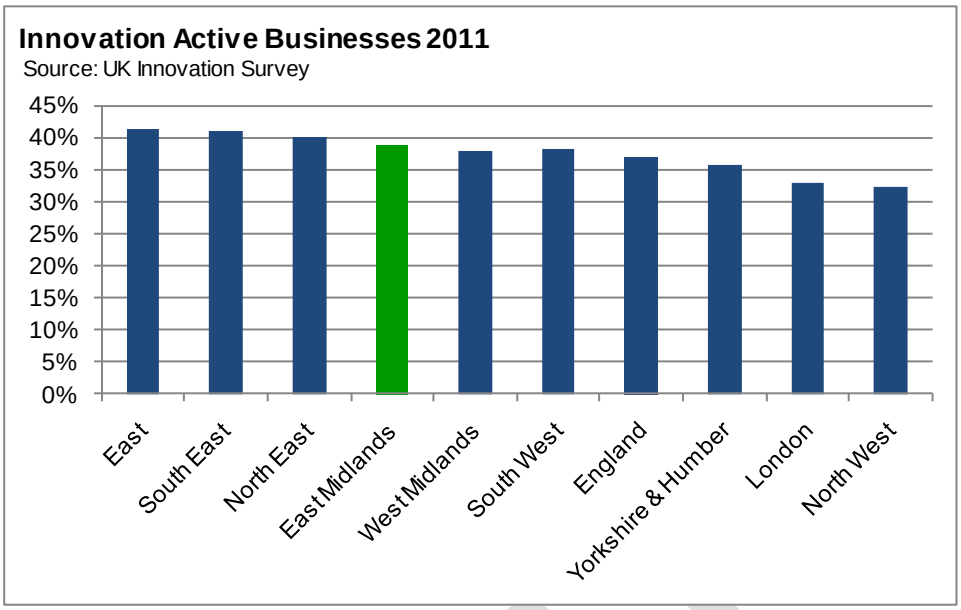
3.3 Innovation Outputs

Innovation outputs occur as a result of businesses' investment in innovation and innovation activities. In the UK Innovation Survey, businesses are that have achieved one or more of the following innovation-related outputs are defined as innovation active:

- Introduction of a new or significantly improved product (good or service) or process;
- Engagement in innovation projects not yet complete or abandoned;
- New and significantly improved forms of organisation, business structures or practices and marketing concepts or strategies.

The East Midlands performs relatively well in terms of the number of innovation active firms. In 2011, 38.9% of businesses were innovation active, which is marginally higher than the national average (37.1%) and higher than all but one of the regions outside of the East and South East.

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The East Midlands performs well in terms of the proportion of businesses that have introduced new innovations. The region has the highest proportion of businesses that have introduced new or significantly improved products or processes (24%) outside the East and South East (25% each), which is higher than the national average (22%). This is also significantly higher than London, the area with the lowest level of product innovation (19%).

Businesses with Product and Process Innovation 2010			
	Either Product or Process	Product Innovator	Process Innovator
East Midlands	24%	21%	11%
England	22%	19%	11%
Source: UK Innovation Survey			

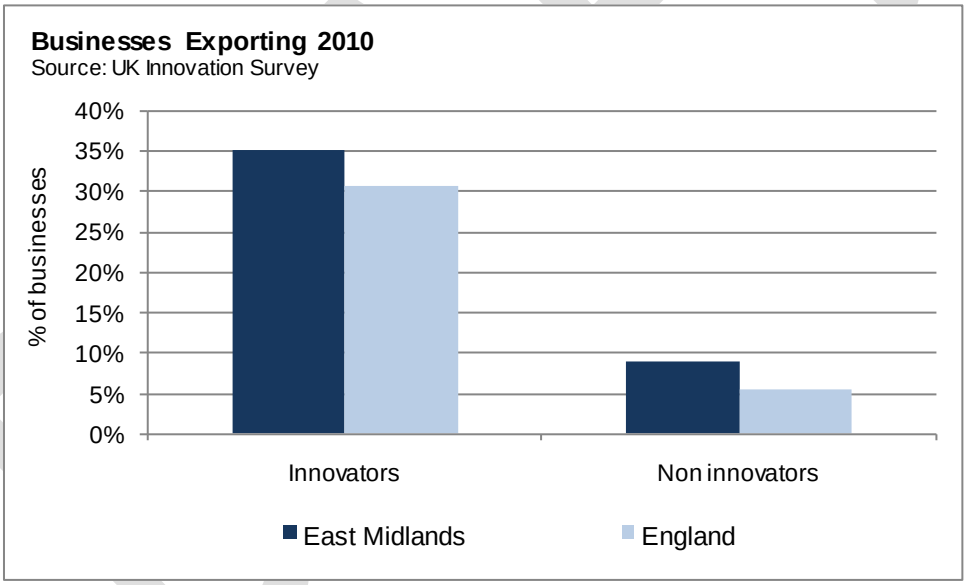
Patents provide a tangible output from innovation, however it is important to recognise that they capture only a very small part of overall innovation activity. The D2N2 area had a slightly lower number of patents per 100,000 residents (9.2 compared to 10.6 nationally) at the time of the last publicised data in 2007[7]. This places area 16th out of the 39 LEPs.

Another indication of the success of a businesses' innovation activity is the level of turnover that is generated by the new or improved products. On average, businesses in the East Midlands generated 30% of their income from new or improved products, which places them sixth of the nine regions.

[7] Source: LEP Network Review of LEP Economies 2012 Report.

Share of Turnover from Product Innovation 2010		
	New or improved products	Unchanged or marginally modified products
North East	38%	62%
London	34%	66%
South West	32%	68%
South East	32%	68%
North West	31%	68%
East Midlands	30%	69%
Yorkshire & Humber	29%	70%
Eastern	27%	73%
West Midlands	24%	76%
Source: UK Innovation Survey		

Businesses that innovate are more likely to export their products and services than those that do not. This trend is evident in the East Midlands, which also performs particularly well on this measure. Amongst businesses that innovate, 35.3% of East Midlands businesses export compared to the England average of 30.7%. The region has the highest level of non-innovator exporting in the country (8.9%). This is higher than the national average (5.6%) and almost twice the proportion in the lowest performing region (South East, 4.6%), reflecting D2N2's traditional strength as an exporting economy.



4 Employment and Skills

Key Point Summary

- Nearly 1,035,000 of the working age population in D2N2 are economically active. At 76% of the total working age population, this is below the regional and national average (77.6% and 77.5% respectively).
- Between 2012 and 2013 there was a fall in economic activity in D2N2, from a rate of 77.2% to 76%, and conversely a rise in inactivity (22.8% to 24%). The main reasons for this were an increase in the number of those looking after the family or home (14,800 net additional individuals, or a 22% increase), long term sick (5,800, 8%) and students (5,100, 6%).
- 954,600 of D2N2's working age residents are in employment. With an employment rate (92.2%) in line with the national average (92.1%), D2N2 performs well on this indicator and the employment rate has been increasing following decline during the downturn.
- There are 80,300 unemployed working age residents in D2N2, which represents 7.8% of all those that are economically active, below the national rate (7.9%).
- The D2N2 labour market skills profile broadly matches that of the regional profile, however compared to nationally, there are fewer in the D2N2 labour market with Level 4+ and Level 3+ skills. The rate of increase in those with Level 4+ skills in D2N2 has not kept pace with the national rise.
- D2N2's occupational profile has an over representation of skilled trades, operatives, elementary and other service occupations, reflecting the sectoral structure of the economy. Despite an under representation of professional occupations, this group has expanded in D2N2 in recent years.
- In 2012/13, there were 23,870 starts on an Apprenticeship in D2N2. In the past five years Apprenticeship starts have increased rapidly in D2N2 (106%) and between 2011/12 and 2012/13 starts in D2N2 continued to rise (2%) while Apprenticeship starts nationally fell slightly (-2%).
- Businesses in D2N2 do experience some skills gaps but these are no more prevalent within the LEP area compared to nationally (14% and 15% respectively). However skills shortage vacancies are more commonly experienced by employers in D2N2 (28% of employers in D2N2 with a vacancy stated that it was a skills shortage vacancy, compared to 24% nationally).

Analysis of economic activity, including employment and unemployment trends, is an important indicator of the relative health of the D2N2 labour market and economy. The level of skills that are available in the labour market for businesses to draw upon is also an important facilitator of economic growth. D2N2 aims to bring about a step change in skills levels through an employer and sector led approach.

4.1 Economic Activity

WORKFORCE PROFILE

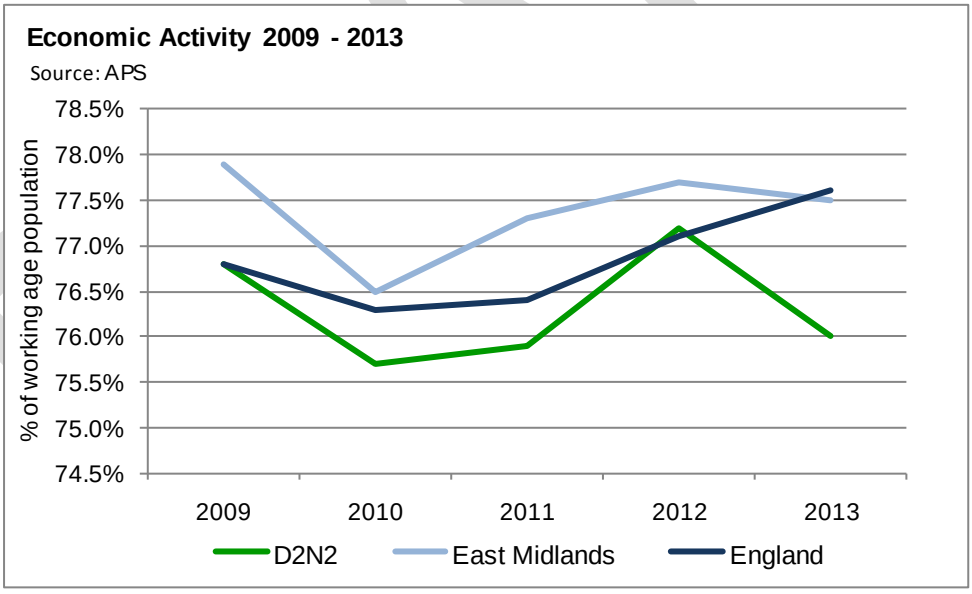
D2N2 economy has below average levels of economic activity and higher levels of inactivity amongst the working age population compared to the regional and national average. In the year to September 2013, over three quarters of the D2N2 workforce was economically active (76%), slightly below regional and national rates (77.6% and 77.5% respectively). Conversely, economic inactivity (24%) is higher than the regional and national average (22.5% and 22.4%). Of those who are inactive, the most common reasons are retirement, long term or temporary sickness and studying, the first two of these groups are over represented in D2N2 compared to nationally.

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Economic Activity of the Working Age Population 2013				
	D2N2 No.	D2N2 %	East Midlands %	England %
Economically active	**1,034,900**	**76.0%**	**77.5%**	**77.6%**
Employed	954,600	70.1%	71.4%	71.4%
Unemployed	80,300	5.9%	6.1%	6.1%
Economically inactive	**327,200**	**24.0%**	**22.5%**	**22.4%**
Retired	84,600	6.2%	4.0%	3.4%
Long-term or temporary sick	82,700	6.1%	5.3%	5.1%
Student	80,700	5.9%	5.6%	5.9%
Looking after family/home	52,100	3.8%	5.8%	5.9%
Other	27,200	2.0%	1.8%	2.1%
Total	**1,362,100**	**100.0%**	**100.0%**	**100.0%**
Source: Annual Population Survey				

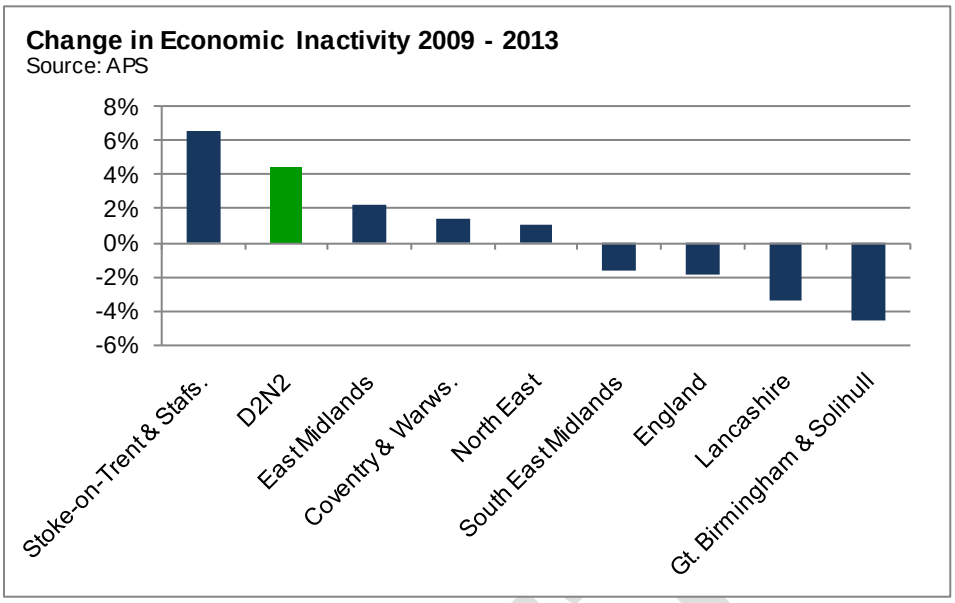
FLUCTUATING ECONOMIC ACTIVITY RATE

Economic activity rates in the D2N2 economy have been variable in recent years. Overall the rate has fallen slightly, from 76.8% in 2009 to 76% in 2013, which is equivalent to 2,400 fewer economically active people of working age (-0.2%). However, between 2009 and 2010, the economic activity rate fell across the country as a result of the recession, however there was a greater decline in D2N2 (-1.1% points) compared to the national trend (-0.5% points). The employment rate has since started to rise and in 2012 was slightly ahead of the national average (although remaining below the regional average). In 2013 however the rate has fallen again, while nationally, economic activity continued to rise. In interpreting these trends, it should be noted that these changes are within a narrow band and should be seen as relatively small fluctuations.



The trend in economic inactivity inversely mirrors that of economic activity. Overall between 2009 and 2013, D2N2 experienced a rise in the economically inactive working age population with the number increasing by 14,100 (4.5%) and the inactivity rate rising from 23.2% to 24%. This is a relatively high increase and only one of the comparator areas experienced a higher increase (Stoke-on-Trent and Staffordshire LEP).

However as noted above, this rise in economic inactivity is largely due to trends between 2012 and 2013. The economically inactive groups that account for this recent trend include those looking after family or home (14,800 net additional individuals, or a 22% rise), long term sick (5,800, 8%) and students (5,100, 6%).

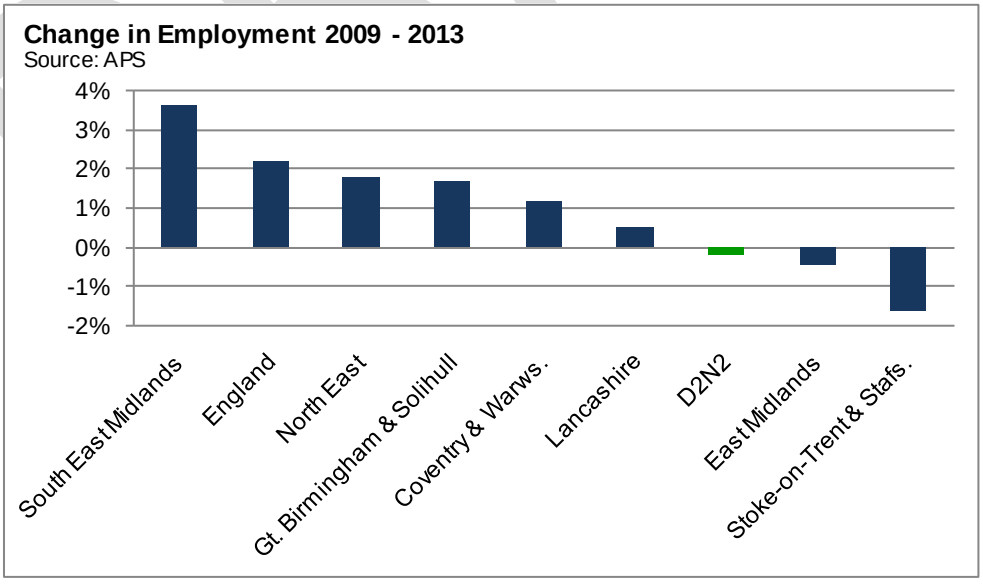


4.2 Employment

In the year to September 2013, there were 954,600 working age residents of D2N2 in employment. When expressed as a proportion of the economically active population, this gives an employment rate of 92.2%, which is higher than the national average (92.1%).

Overall, between 2009 and 2013, there was a slight decline in the number of working age residents of D2N2 in employment (1,800, -0.2%). This is less of a decline than in the East Midlands and one of the comparator areas (Stoke-on-Trent and Staffordshire), however other comparator LEPs saw an increase in the number of working age population in employment in this period, as did England as a whole.

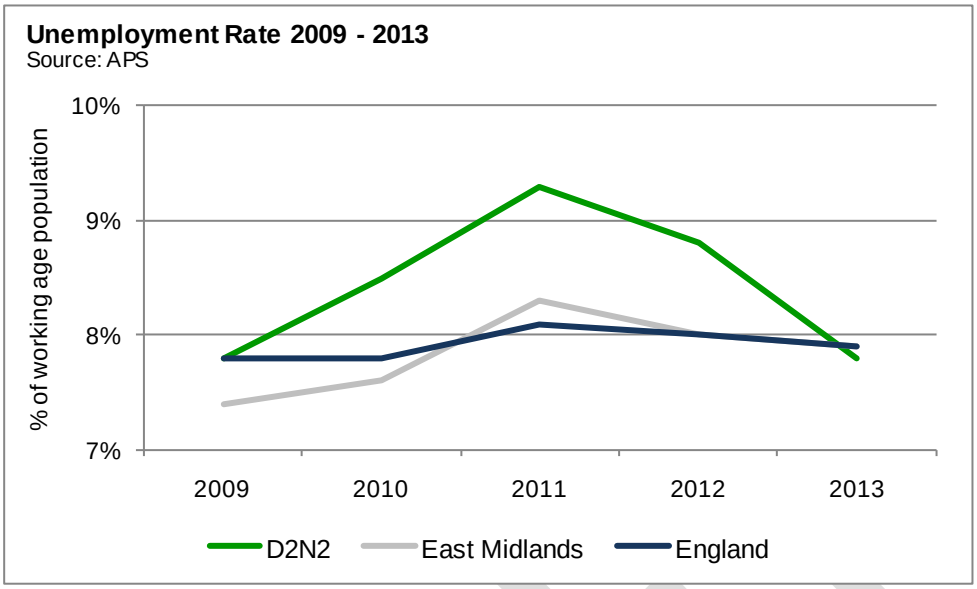
However this overall change disguises trends during this period. The employment rate fell from 92.2% in 2009 to 90.7% in 2011 when it reached its lowest point. Since 2011, the employment rate in D2N2 has increased to 91.2% in 2012 and 92.2 in 2013.



Despite these signs of employment growth in since 2011, there are still significant pockets of worklessness across the LEP in former coal mining areas to the north of D2N2 and in the cities (particularly Nottingham).

The most recent data shows that there are 80,300 unemployed working age residents in D2N2. This represents 7.8% of all those that are economically active. During the downturn, the

unemployment increased at a higher rate in D2N2 compared to the national and regional increases and at its peak in 2011, the unemployment rate in D2N2 was (9.3%), compared to 8.3% regionally and 8.1% nationally. However it has since fallen and encouragingly is now slightly below the national and regional average.

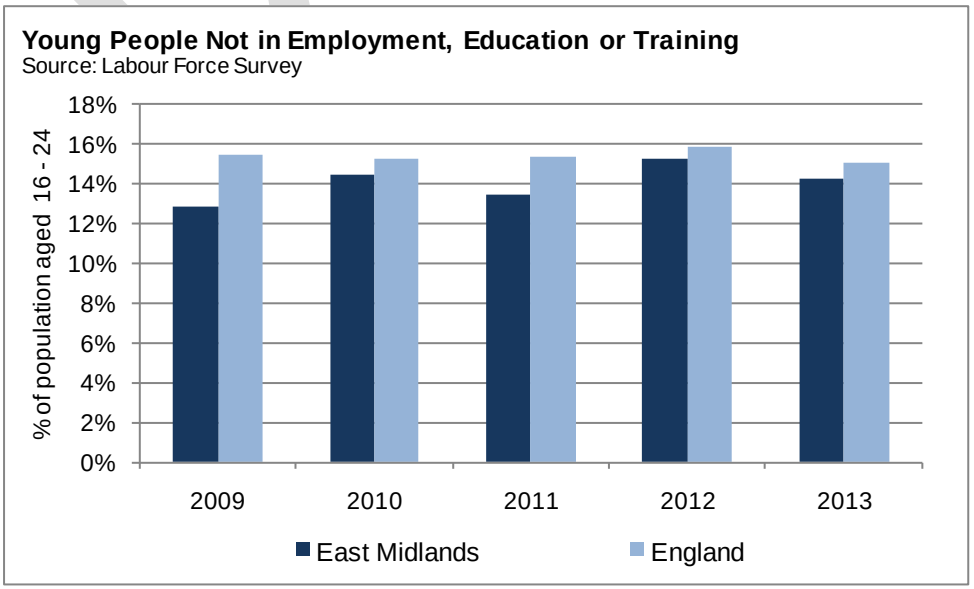


There is considerable variation in the level of unemployment across the D2N2 area. Unemployment is highest in Nottingham with 13.5% of working age economically active people out of work, while unemployment is lowest in Derbyshire at 4.8% of working age economically active people.

4.3 Young People

Young people have been adversely affected by the recession and concern has been raised that this will result in a generation with higher levels of disengagement from the labour market. Youth unemployment is a particular issue in certain parts of the D2N2 area, especially within Nottingham. The D2N2 area has 11,900 Jobseekers Allowance claimants aged 18-24 (February 2014), a tenth of the total population in this age group and slightly above the national average (9.3%).

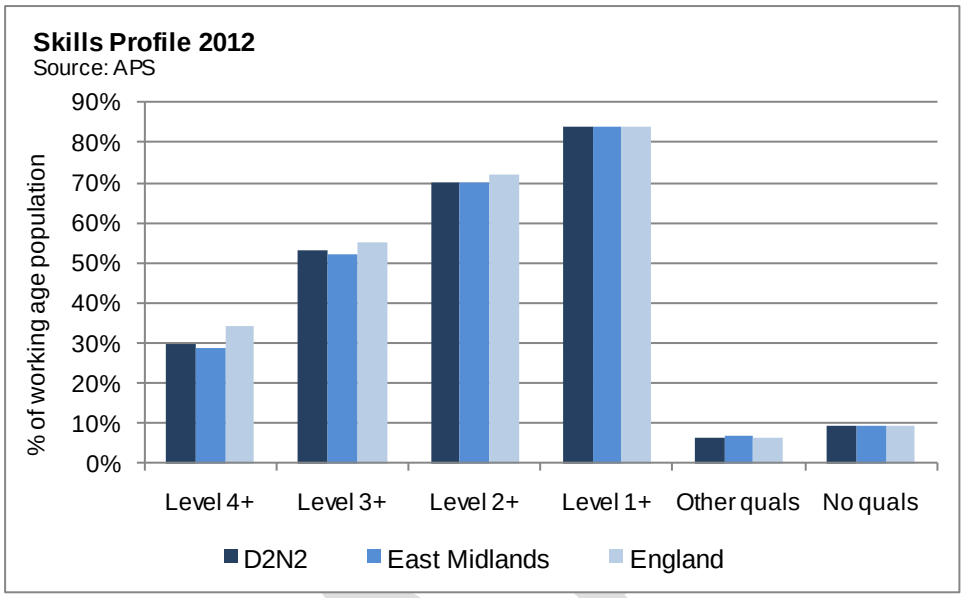
In 2013, there were 77,000 young people aged 16 to 24 in the East Midlands who were not in education, employment or training (NEET) (15.1% of the total). This is slightly higher than the national average (14.3%). LEP level data is unavailable, however it could be assumed that the regional figure is a reasonable representation of the D2N2 economy.



4.4 Skills Profile

LOWER THAN AVERAGE SKILLS LEVELS

The D2N2 labour market skills profile broadly matches that of the regional profile, with no more than a percentage point of difference between the two across each qualification level. Compared to the national profile, there are fewer in the D2N2 labour market with Level 4+ and Level 3+ skills.



Skill levels however vary across the D2N2 area. For instance, in Derby and Derbyshire there is a greater demand for level 3 / technician level skills whilst in Nottingham, there is stronger demand for lower skilled jobs in sectors such as retail and health.

AN IMPROVING SKILLS BASE

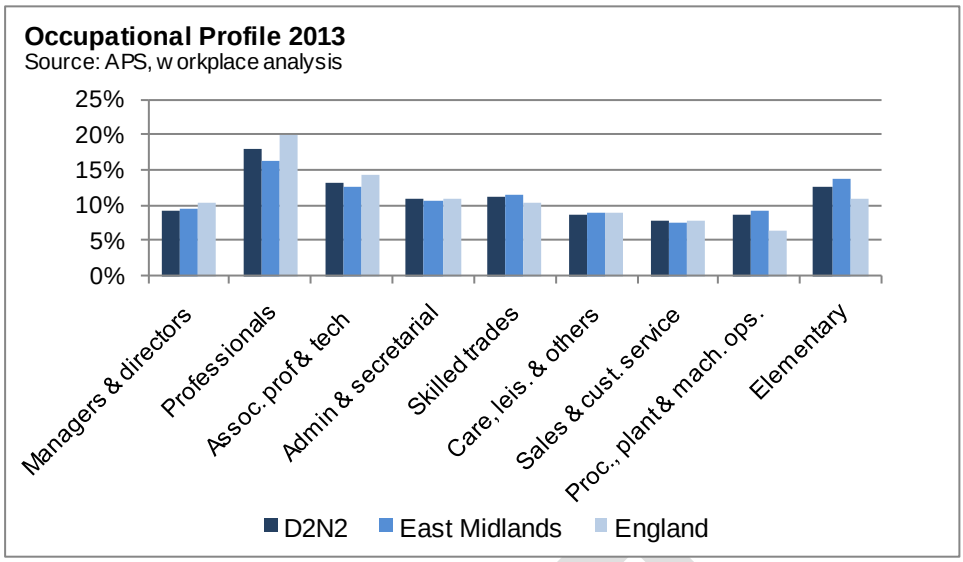
The skills profile of the D2N2 economy has improved in recent years. There are fewer of the working age population with no qualifications and more with Level 3+ and Level 4+ qualifications. Compared to the national trend, the fall in the proportion with no qualifications in D2N2 has been faster while the growth in higher level skills has lagged behind the national rate.

Qualification Profile Change 2008 - 2012				
	D2N2		East Midlands	England
	No.	%	%	%
No qualifications	-63,800	-33%	-36%	-28%
Level 3+	104,400	17%	17%	17%
Level 4+	60,700	18%	17%	23%
Source: Annual Population Survey				

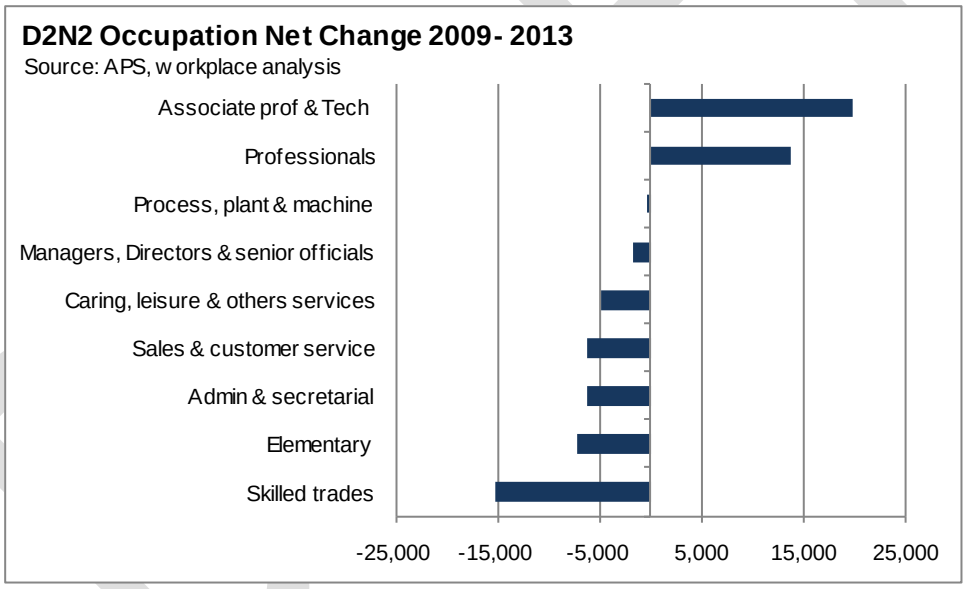
4.5 Occupational Profile

LOWER LEVELS OF PROFESSIONAL OCCUPATIONS

When compared to the national average, the occupational structure of the D2N2 economy is skewed towards skilled trades, operatives, elementary and other service occupations. D2N2 has an under supply of professional occupations, reflecting the under representation of professional, financial and business services sector employment (see Chapter 2) and the skills profile above.



Despite the under-representation of professional occupations, employment in these occupational groups is increasing. Between 2009 and 2013, associate professional and professional jobs increased by 19,800 and 13,700 respectively, while lower skilled elementary and skilled trade occupations declined. This represents the change in occupational structure highlights the importance of higher level occupations to the continued growth of the D2N2 economy.

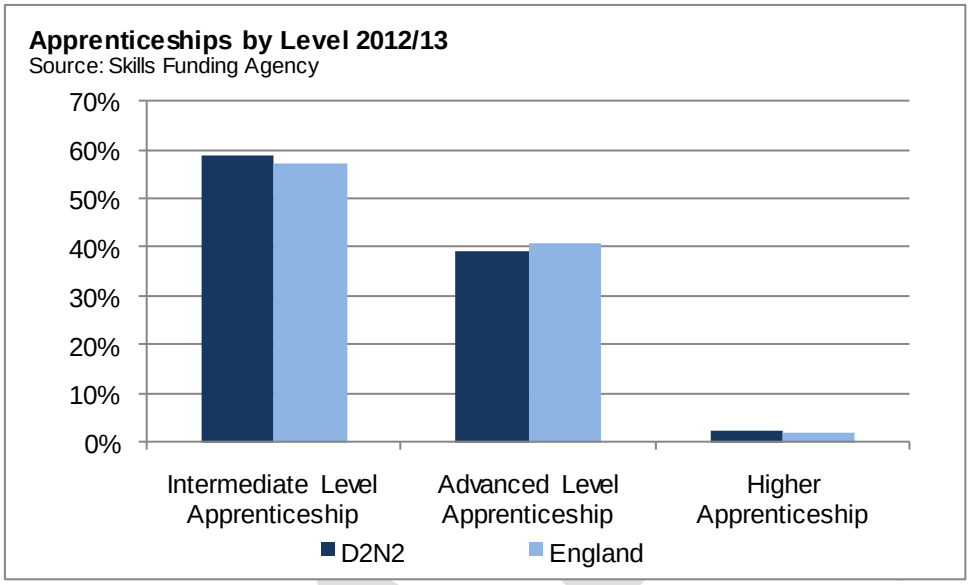


4.6 Apprenticeships

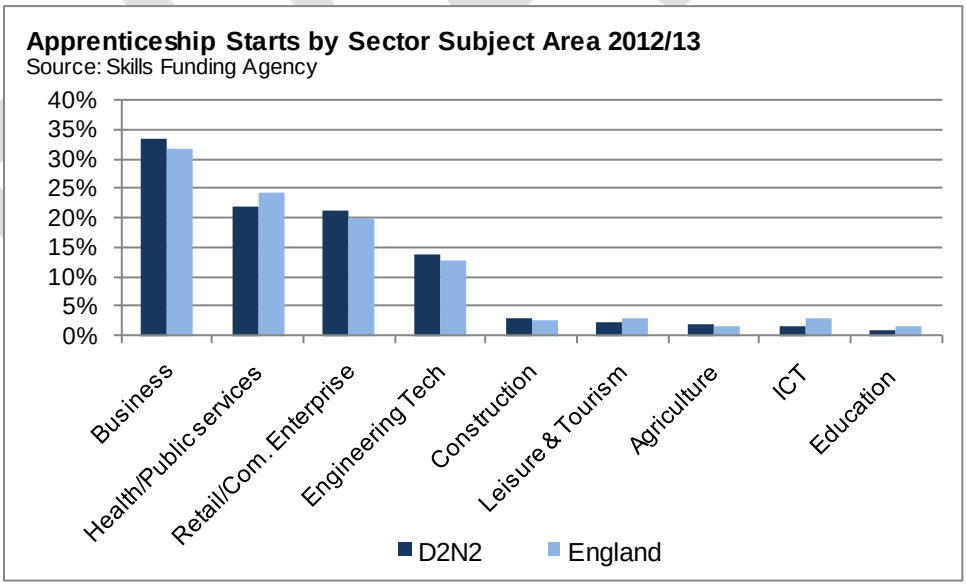
In 2012/13, there were 23,870 starts on an Apprenticeship in D2N2 and 11,920 Apprenticeship achievements. Apprenticeships have been a key part of the government's skills policy in recent years and there has been a continued emphasis on increasing apprentice numbers. This has led to considerable growth and in D2N2 the number of Apprenticeship starts doubled between 2008/09 and 2012/13 (106%), which is slightly below the level of growth experienced nationally (113%). In more recent years, the number of Apprenticeship starts in England has declined (-2%) while starts in D2N2 have continued to increase (2%).

Change in Apprenticeship Starts and Achievements 2008/09 – 2012/13					
	D2N2				England
	2008/09	2012/13	No.	%	%
Starts	11,590	23,870	12,280	106%	113%
Achievements	7,130	11,920	4,790	67%	76%
Source: Skills Funding Agency					

The majority of Apprenticeship starts in D2N2 were on Intermediate Apprenticeships (Level 2) (59%), followed by Advanced Apprenticeships (Level 3) (39%) and a small proportion of Higher Apprenticeships (2%). This is in line with the national profile and the small number of Higher Apprenticeships reflects the relatively recent introduction of this qualification. Increasing the number of Advanced and Higher Apprenticeships, and ensuring that Apprenticeships meet employer needs, is an important priority for D2N2 LEP.



Apprenticeship starts were most commonly in the business (33%), health and public services (22%), retail and commercial enterprise (21%) sector subject areas and together these subjects account for over three quarters of starts. This is broadly in line with the national profile, although D2N2 has a slightly higher proportion of starts on engineering and technical Apprenticeships than is the case nationally, reflecting the sectoral structure of the D2N2 economy.



4.7 Skills Gaps and Skills Shortages

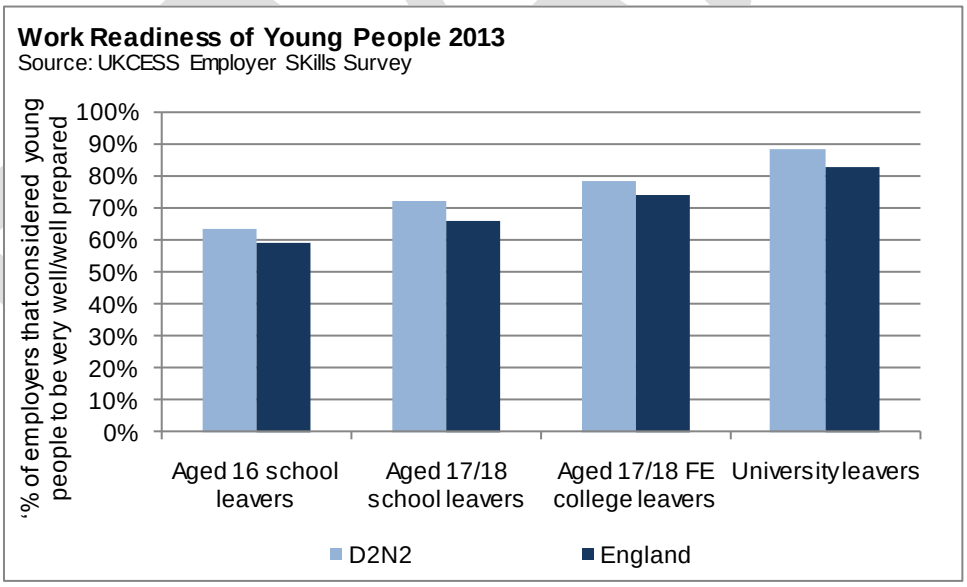
A skills gap occurs when an employee is not fully proficient in their job. In the D2N2 economy, 14% of employers reported a skills gap, which is broadly in line with the national average (15%). Employers have experienced skills gaps in all occupations, however there is a small level of variation across the job roles and the employers in the D2N2 economy is broadly similar to the national average.

Employer Skills Gaps 2013		
	D2N2	England
Employers with a skills gap	14%	15%
Employers with a skills gaps by occupation		
Managers	2%	3%
Professionals	1%	1%
Associate professionals	1%	1%
Administrative/clerical staff	3%	3%
Skilled trades	3%	2%
Caring, leisure and other	1%	1%
Sales/customer service staff	3%	4%
Machine operatives	1%	1%
Elementary staff	3%	3%
Source: UKCES Employer Skills Survey		

A skills shortage vacancy occurs when an employer is unable to find a recruit with the right skills to fill their vacancy. In the D2N2 economy, 28% of employers with one or more vacancies stated that they had a skills shortage vacancy, which is slightly higher than the England average (24%). However the density of skills shortage vacancies in D2N2 is the same as the national average (22% of all vacancies are skills shortage vacancies).

4.8 Young People's Work Readiness

Employers in the D2N2 area are more likely to consider young people well or very well prepared for work compared to the national average. Although nearly 40% of employers do not consider young people leaving school at 16 to be well or very well prepared for work. Both in D2N2 and nationally, young people are more likely to be considered well prepared for work the longer they are in education.



4.9 Employer Investment in Training

In 2013, two thirds of employers in D2N2 provided training for their staff, which is in line with the national average. Of those who provided training, over half provided both on and off the job training (53%), with the remainder providing either on the job training only (26%), slightly lower than the national average (29%), or off the job training only (21%), slightly higher than the national average (18%).

Employer Investment in Training 2013		
	D2N2	**England**
Provided training	66%	66%
Do not provide training	34%	34%
Type of training provided		
Off-job and on-job training	53%	53%
On-job training only	26%	29%
Off-job training only	21%	18%
Source: UKCES Employer Skills Survey		

4.10 Graduate Destinations

Graduate retention within the D2N2 economy makes an important contribution to the overall skills profile of the working age population. University students are surveyed by the Higher Educational Statistical Agency six months after graduation to examine the destination of leavers and to assess the levels of gradate retention in an area. The two Universities in Nottingham retain around 30% of their graduates within the Greater Nottingham area, with retention highest for education and health related graduates. This is however a relatively low retention rate when compared with other core urban areas. For instance in Manchester and Birmingham, the figures rise to over 50% of graduates retained locally. In Derby, a survey by the University in 2009 revealed that around 40% of graduates were retained in the area, although a large proportion of these were already Derby residents. Just 15% of students at the University were not originally from Derbyshire but still living in the county six months after they had left the University.

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5 Economic Infrastructure

Key Point Summary

- D2N2 is a well connected area in terms of access to transport infrastructure. Despite some congestion concerns, the area is well located for freight and passenger transport by road and rail.
- Digital connectivity is variable across the D2N2, with better connectivity in urban areas compared to rural areas. The D2N2 area has two major Superfast Broadband programmes supported by BDUK - Superfast Nottinghamshire and Digital Derbyshire – both of which will improve broadband speeds in the coming years.
- In Derbyshire, there is generally a sufficient supply of industrial land available. However across all business uses, floorspace is cheaper than the national average. In Derby, there is a need for modern office space to enhance the city's competitiveness. Nottingham and Nottinghamshire have highlighted the need for space to accommodate the projected rise in office employment has been noted, particularly around the city centre and its regeneration areas.

5.1 Transport Infrastructure

Transport facilities and services have an important role to play in the successful function of the D2N2 economy and in supporting its future growth. With its central location in England, the D2N2 area has excellent transport links both in north/south and east/west terms. The M1 provides easy access to the north and south of the UK and the A50 corridor gives easy access to the M6 and North West. The A38 and A453 also provide important links to the West Midlands. In addition, both Nottinghamshire and Derbyshire have good rail links, including to London, and two major airports (Nottingham East Midlands and Doncaster/Sheffield) are located either within or just outside the area.

The area does face some transport infrastructure issues, with concerns including slower journey times to some major cities and the frequency and journey times between the area's larger towns and key centres (particularly access to public transport in rural areas). Congestion is also an issue across the East Midlands, particularly in relation to the M1 and A1. However the area's central location is a key positive, and makes the D2N2 area well located for inter-regional road freight movements across the country and large retail distribution centres, demand for which has been rising especially in areas with a close proximity to the M1.

5.2 Digital Infrastructure

Technology is increasingly linked to economic competiveness, and high levels of IT skills amongst the labour force and access to high speed broadband connections are playing and increasingly important role in the success of local economies. Connectivity within the D2N2 area is better in urban areas, although speed has been insufficient in certain areas and in rural areas, the lack of high speed broadband has presented digital exclusion issues.

Improving digital connectivity is crucial to the future economic success of the D2N2 area. Improvement to broadband connectivity has been highlighted as a key priority in both Derbyshire and Nottinghamshire. The D2N2 area has two major Superfast Broadband programmes supported by BDUK. The Superfast Nottinghamshire Programme aims to achieve the best long term broadband coverage for Nottinghamshire and deliver broadband speeds in excess of 24 megabits per second* across 90 per cent of the county, and 2 megabits per second to the remainder by 2015. Nottinghamshire County Council, Government and the district and borough councils have all contributed towards the infrastructure costs associated with delivering next generation broadband access, and recently £2.7m was secured through ERDF funds for its delivery. This equates to a total investment package of £10.5m.

In Derbyshire a similar programme, Digital Derbyshire, aims to deliver superfast broadband (up to 30mbs) to 90% of premises and a minimum speed of 2mbs to the remaining 10% hard to reach areas. Investment in excess of £15m public funding will achieve the infrastructure transformation by the end of 2015. Alongside the infrastructure investment, the programme will deliver focused solutions to business with £25m ERDF recently secured for this purpose whilst the "Broadband Champions" campaign continues to stimulate demand for internet services amongst businesses and local communities.

The delivery of these two interventions will help to broaden D2N2's economic base and improve the economic performance of both its urban and rural economic areas.

5.3 Employment Land and Floorspace

The Derbyshire Local Economic Assessment notes that within Derbyshire, there is generally a sufficient supply of industrial land available, and in some areas there may be an over-supply. However many of the Employment Land Reviews undertaken across the county have concluded that much of the land is of poor quality and unattractive to the market. The County has a higher proportion of its floorspace for industrial use and a lower proportion of office, warehouse and retail space than nationally reflecting its reliance on traditional industries. The area is also characterised by lower than average rateable floorspace values. In 2012, across all types of business floorspace, Derbyshire was cheaper than the national average. The greatest difference was retail floorspace, which at £60 per metre^2, is less than half the national average price (£155)[8]. Derby's Local Economic Assessment indicates that the city centre, in particular, needs more modern office floor space to be competitive and that the quality of city centre office supply has been recognised as being poor for some time.

The Nottinghamshire Local Economic Assessment makes reference to the availability of suitable premises being an important issue for local businesses. Projections based on the Nottingham City Region Employment Land study indicate a need for around 23,500 office jobs between 2009 and 2026, with the main focus of development on Nottingham city centre and its regeneration areas, as well as smaller town centres including Arnold, Beeston, Bulwell and Hucknall and Sustainable Urban Extensions including Rolls Royce in Hucknall and the Boots site (in Broxtowe and Nottingham City). In addition, Newark and Sherwood (given its growth ambitions) and sites along the A1 and M1 are also likely to attract development and employment opportunities.

[8] Valuation Office Agency 2012, via Derbyshire Local Economic Assessment (forthcoming).

6 Housing and Regeneration

Key Point Summary

- There are five housing market areas in D2N2 – Nottingham, northern, Peak sub-region, Sherwood Forest, Derby.
- In 2012, there were 935,530 dwellings in D2N2. The majority are houses or bungalows (88%), followed by flats (12%).
- There is substantial variation in house prices across the LEP. In 2012, the average house price in D2N2 ranged from £251,600 (Derbyshire Dales) to £114,800 (Bolsover). Affordable housing is a particular issue in Derbyshire Dales and Rushcliffe.
- While D2N2 has kept pace with national trends in housing supply, this has fallen short of demand particularly in the years following the downturn.
- Forecasts suggests that the number of additional households will increase by around 7,800 per year in D2N2 to 2021, which is significantly above the current rate of house building which has been around 2,500 to 3,500 completions per year.

Housing plays an important role in delivering economic growth. An adequate supply of housing is crucial in attracting and retaining businesses and individuals within an area. This chapter considers the D2N2 housing offer and the future requirements for housing in the LEP area.

6.1 Housing Market Areas

Five housing market areas have been identified within D2N2, although in practice there is considerable overlap within and between these areas, and links to adjacent areas outside the D2N2 boundary. Each faces their own particular housing market challenges and opportunities:

- The **Nottingham housing market area**, stretches beyond the city to include Broxtowe, Gedling, Rushcliffe and Erewash. This housing market is one of contrasts, with increasing affluence in some areas and high levels of deprivation and poor quality housing in others, and there is a need to prevent polarisation in the market and renew the housing stock. A significant proportion of the additional housing required in D2N2 will be delivered within this area;
- The **northern area**, covering north Derbyshire and Bassetlaw, which has significant clusters of deprivation and a need to improve the quality of the housing stock. Development has been slowed by the economic downturn and there is an overall lack of investment, with the relatively low prices holding back both development and stock renewal;
- The **Peak sub-region**, covering High Peak and Derbyshire Dales, faces real challenges of affordability, given the relatively low wages earned by many residents and the attractiveness of the area to mobile, highly skilled and well-paid workers. Increasing the supply of affordable and first homes is a priority, as is maintaining the viability of smaller settlements and villages;
- The **Sherwood Forest area**, taking in Mansfield, Ashfield and Newark & Sherwood, has been affected by industrial restructuring, which has resulted in a housing stock that does not meet the needs of local residents in terms of either quantity or quality. Local priorities include increasing development to increase the range of housing available and provide more choice for local people, with significant growth planned for Newark as part of the Newark / Lincoln / Gainsborough / Grantham growth area; and
- The **Derby** housing market area, covering the city of Derby and surrounding areas, where significant population and household growth is envisaged, and the challenge will be to

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manage this whilst minimising the impact on the environment and responding to the increased demand for local services.

6.2 Current Housing Stock

In 2012, there were 935,530 dwellings in D2N2[9]. Data from the 2011 Census shows that the majority are houses or bungalows (88%), followed by flats (12%) and a small proportion are accounted for by caravans or temporary structures (0.3%). D2N2 has a higher proportion of houses or bungalows and fewer purpose built flats, compared to the national average (77% and 22% respectively). The main variation at the district level is in Nottingham, where 25% of dwellings are flats.

Dwellings by Type 2011		
	D2N2	**England**
Total dwellings	931,570	23,044,000
Dwelling type		
House or bungalow: Detached	30%	22%
House or bungalow: Semi-detached	37%	31%
House or bungalow: Terraced	21%	24%
Flat, maisonette or apartment: Purpose-built block of flats	9%	17%
Flat, maisonette or apartment: Part of a converted or shared house	2%	4%
Flat, maisonette or apartment: In a commercial building	1%	1%
Caravan or other mobile or temporary structure	0.3%	0.4%
Source: Census		

The vast majority of dwellings in D2N2 have a usual resident (96%), with the remainder having no usual resident (4%), which is in line with the England average. At the district level, the highest proportion of dwellings with no usual residents is in Derbyshire Dales (8%) reflecting the demand for Peak District second homes and holiday lets.

Two thirds of households in D2N2 are owner occupied (either owned outright or with a mortgage), with the remained split fairly evenly between social and private rented (17% and 15%), and a small minority living rent free (1%). Compared to the national average, a higher proportion of households are owner occupied.

Households by Tenure 2011		
	D2N2	**England**
Owned	66%	63%
Social rented	17%	18%
Private rented	15%	17%
Living rent free	1%	1%
Source: Census		

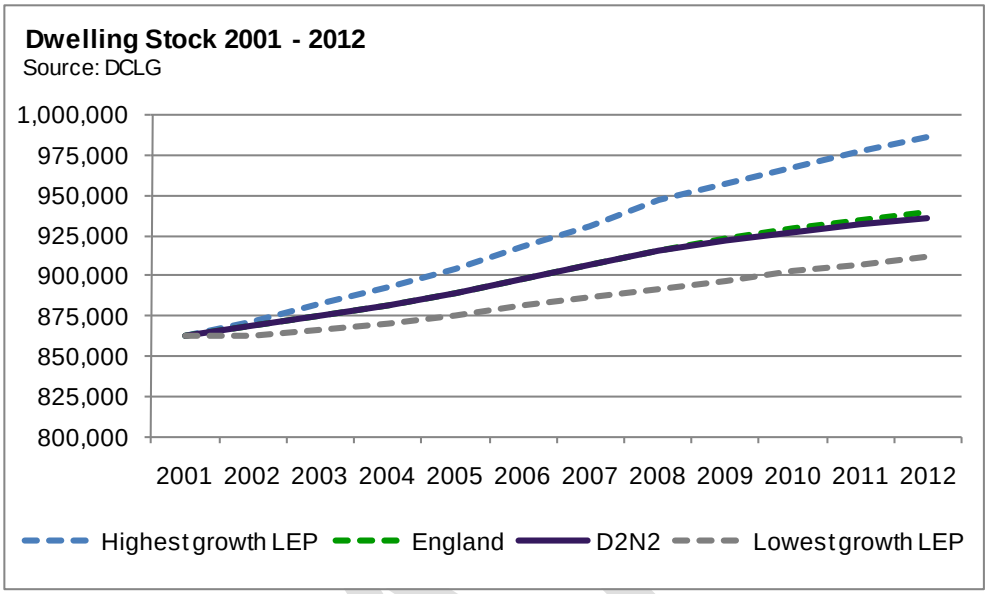
There is substantial variation in house prices across the LEP. In 2012, the average house price in D2N2 ranged from £251,600 in Derbyshire Dales to £114,800 in Bolsover. In common with patterns reported nationally, the ratio of house prices to income has rose considerably in the last growth period. Although the ratio has fallen during the downturn, overall affordability remains challenging for many households with some parts of the LEP more affected than others. In 2012, the ratio of average house prices to average income in the two unitary authorities (Derby 3.75 and Nottingham 3.98) was lower than the national average (6.74), the lowest in the LEP, while Derbyshire Dales (8.36) and Rushcliffe (7.74) have the highest ratios in the LEP.

The Government's Help to Buy scheme and more favourable lending terms (including the introduction of 95% mortgages by some lenders outside the Help to Buy scheme) are showing early signs of helping to support access to home ownership. Low interest rates are a further supporting factor.

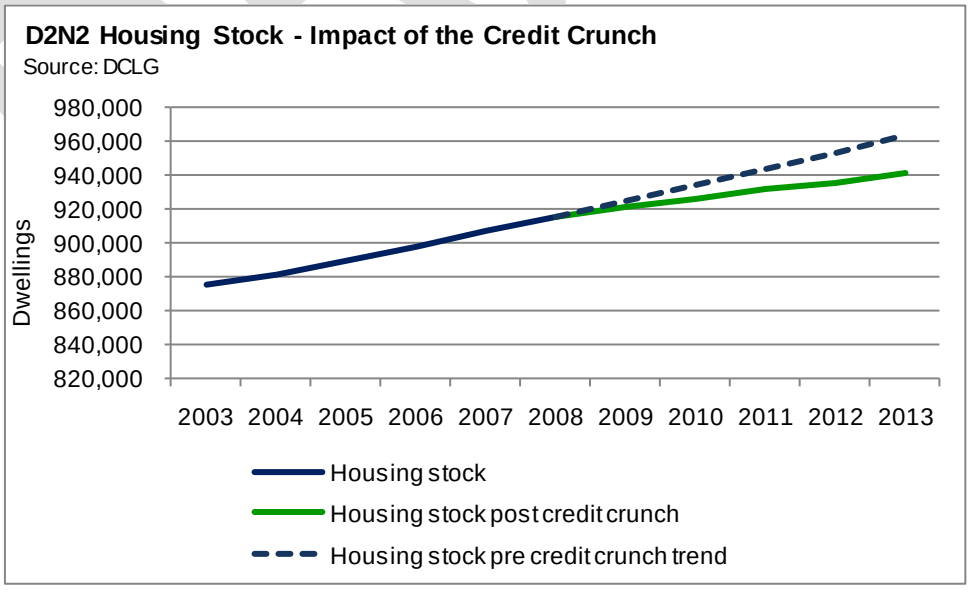
[9] Source: DCLG dwelling stock estimates

6.2 Trends in Housing Supply

In recent years, the growth in housing stock in D2N2 has largely kept pace with the national average. Between 2001 and 2012, there was a net increase of 72,740 dwellings in D2N2, an increase of 8% which is only slightly below the increase nationally (9%). The LEP is ranked 26th out of the 39 LEPs in terms of proportionate change in dwellings in this time period and 8th out of 39 in terms of absolute change.



However housing supply, both in D2N2 and nationally, has not kept pace with demand. House building slowed considerably as a result of the credit crunch and subsequent recession. Prior to the recession, housing stock had increased by 1% per annum. The rate of increase fell to 0.5% per annum after 2008, as shown in the diagram. In 2012/13, across the D2N2 districts, there was an average of 200 new dwellings completed ranging from between 400 (Ashfield) and 80 (High Peak), compared to more than twice this at the 2007 peak (average of 410 completed, ranging from 1,240 in Nottingham to 190 in High Peak).



Based on the latest data from October 2012, across D2N2 there are 32,250 empty homes, which represents 3.4% of the total stock and is in line with the national average. At the district level, the highest proportion of empty homes is in Bolsover (4.8%) and lowest in North East Derbyshire, South Derbyshire and Rushcliffe (2.7% each). Across D2N2, 39% of empty homes were classed

as long term vacant, which is slightly higher than the national average (37%). This ranged from 55% in Bolsover to 28% in Broxtowe.

6.3 Future Demand and Supply

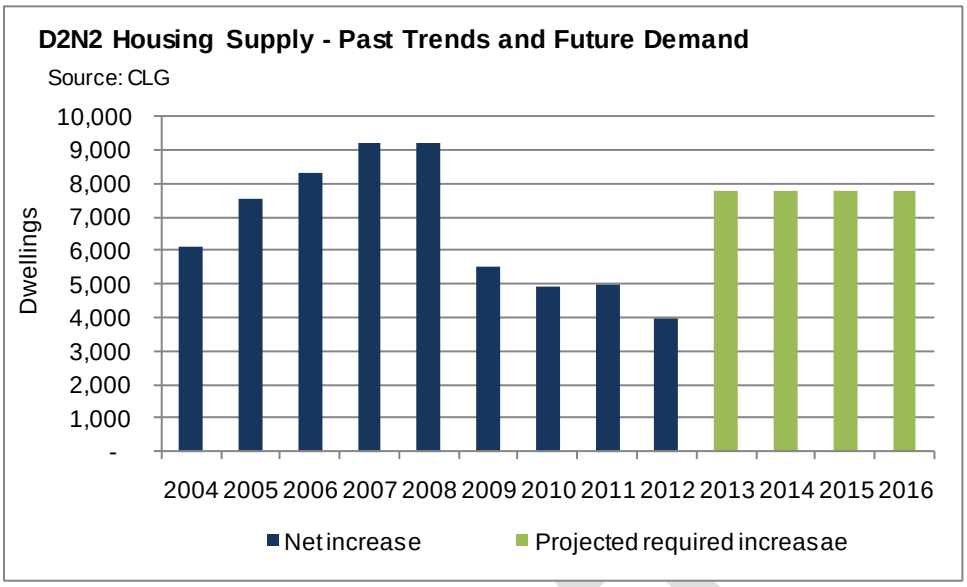
Along with many other parts of the UK, the population in D2N2 is forecast to grow, with figures from the Department for Communities and Local Government indicating that an increase of 78,000 households is expected by 2021[10]. The fastest growth is expected in Derby and south Derbyshire. This level of household growth will both be driven by and contribute to employment growth in the D2N2 area.

Forecast Households 2011 - 2021			
	2021 Household Forecast (No. thousands)	2011 - 2021 Household Forecast Net Increase	Average Annual Requirement 2011-2021 (No. thousands)
D2N2	973	77,884	7.8
Nottingham	137	11,426	1.1
Derby	114	11,525	1.2
Amber Valley	57	4,603	0.5
Ashfield	55	3,941	0.4
Newark and Sherwood	53	4,617	0.5
Gedling	53	3,575	0.4
Bassetlaw	52	4,348	0.4
Erewash	52	3,090	0.3
Broxtowe	51	4,146	0.4
Rushcliffe	50	4,636	0.5
Chesterfield	49	2,289	0.2
Mansfield	48	2,770	0.3
North East Derbyshire	46	2,707	0.3
South Derbyshire	45	5,600	0.6
High Peak	43	3,995	0.4
Bolsover	35	2,217	0.2
Derbyshire Dales	33	2,399	0.2
Source: DCLG 2011-based interim household projections			

A breakdown of the household forecasts for the LEP shows a prominence of new, small households. Of the 78,000 additional households expected by 2021, over two thirds are accounted for by one person households (+27,000), lone parent households (+14,000), and other forms of non-couple household (+12,000).

In recent years, the number of completions has fluctuated between 2,500 and 3,500, and the number of starts between 2,000 and 3,000[11]. This will not be sufficient to meet the 7,800 additional households per year that the DCLG figures suggest will be needed, nor the housing building levels set out in the Local Authorities' Local Plans (circa 6,000 per year). The chart below shows the gap between the net annual increases in housing stock over the past four years and the level of demand forecast by DCLG.

[10] Source: Household projections, Department for Communities and Local Government
[11] Source: Housing Statistics, Department for Communities and Local Government. Full data is not available from all local authorities for every year.


D2N2 Housing Supply - Past Trends and Future Demand
Source: CLG
Dwellings
10,000
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
-
2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016
Net increase
Projected required increasae

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Appendix 1: State of the Rural Economy

Rural economies have an important role to play in supporting wider economic growth. A recent paper from the Centre for Rural Economy[12] highlights that:

- **Rural businesses make a significant contribution to the national economy:** Rural businesses comprise 28% of England firms and 19% of GVA;
- **Rural areas offer opportunities for growth** by providing a dynamic and dense business base, strong manufacturing base and higher propensity to export, community provision of local services where the need is not met by the private sector, and opportunity linked to the environment itself (e.g. ecosystem and water services);
- **The rural environment enhances wider well-being:** Environmental stewardship is central to achieving a balance between economic growth and sustainability.

A SIGNIFCANT RURAL AREA

D2N2 includes a significant rural population within the two counties in addition to the main towns and two cities. DEFRA classify local authorities by how rural they are, ranging from Rural-80 (where at least 80% of the population lives in rural settlements or large market towns) to Major Urban (with either 100,000 people or 50 percent of their population in an urban area with a population of more than 750,000). Just under 30% of the D2N2 population (28.9%, comprising 570,000 people) were classed as living in a predominantly rural area in 2009 under this definition. Whilst lower than the national average of 37.8%, this still remains a significant proportion of the area's overall employment and labour market. At the local authority level, of the 17 authorities within the D2N2 area, nine are classed as predominantly rural.

Classification of Local Authority Areas within D2N2 2009					
Local Authority	**Rural Popn.**	**Rural Popn. %**	**Urban Popn.**	**Urban Popn. %**	**Classification**
Predominantly Rural Economies					
Derbyshire Dales	69,616	100.00	-	0.0	Rural 80
NE Derbyshire	71,573	73.9	25,260	26.1	Rural 50
Bassetlaw	68,581	63.8	38,996	36.2	Rural 50
Newark & Sherwood	67,552	63.6	38,642	36.4	Rural 50
Rushcliffe	60,014	56.8	45,574	43.2	Rural 50
High Peak	59,804	66.8	29,770	33.2	Rural 50
Amber Valley	50,421	43.3	66,063	56.7	Significantly Rural
South Derbyshire	35,295	43.2	46,398	56.8	Significantly Rural
Bolsover	33,815	47.1	37,947	52.9	Significantly Rural
Predominantly Urban Economies					
Nottingham	-	0.00	267,208	100.0	Large Urban
Broxtowe	3,184	3.0	104,355	97.0	Large Urban
Erewash	11,010	10.0	99,085	90.0	Large Urban
Gedling	20,489	18.4	91,174	81.7	Large Urban
Derby	373	0.2	221,483	99.8	Other Urban
Ashfield	1,609	1.5	109,686	98.6	Other Urban
Chesterfield	1,833	1.9	96,936	98.1	Other Urban
Mansfield	14,384	14.6	83,845	85.4	Other Urban
D2N2	**569,553**	**28.9**	**1,402,422**	**71.1**	**n/a**
Source: Rural Definition and Local Authority Classification (DEFRA 2009)					

[12] Rural areas as engines of economic growth, Centre for Rural Economy 2013.

PERFORMANCE OF THE RURAL ECONOMY

D2N2's rural and urban areas are closely linked and together have a wide variety of strengths and offer a range of opportunities.

The rural local authorities in D2N2 perform well against a number of the key economic indicators. In terms of current performance, D2N2 rural areas outperform their urban counterparts and the national average in employment rate and business survival rates. Just under half of businesses are in rural local authorities (49%). There is a higher proportion of working age residents with higher level skills in rural areas compared to D2N2's urban areas, however the rural areas are still slightly below the national average. The rural areas therefore provide the more urban parts of D2N2 with a source of labour, and in particular highly skilled labour.

Relative Performance of the D2N2 Rural Economy – Current position			
	Rural D2N2	Urban D2N2	England
Employment rate	95.5%	89.9%	92.1%
Private sector jobs	77.6%	78.1%	80.7%
Unemployment	4.5%	10.1%	7.9%
Business start up rate	9.7%	10.9%	11.6%
Business 3 year survival rate	61.6%	59.9%	59.7%
Working age pop. with L4+ quals.	32.1%	28.4%	34.2%
Working age pop. with L3+ quals.	54.1%	52.0%	54.9%
Source: Annual Population Survey, BRES, Business Demography			

Over the past five years, rural areas have seen their employment rate rise whereas the employment rate has fallen in urban areas. However rural areas have not experienced the private sector jobs growth that urban areas have seen.

Relative Performance of the D2N2 Rural Economy – 5 year baseline to current position, % point change			
	Rural D2N2	Urban D2N2	England
Employment rate	1.2%	-0.7%	-0.1%
Private sector jobs	-1.3%	2.2%	1.2%
Unemployment	-1.2%	0.7%	0.1%
Business start up rate	-1.7%	0.1%	-0.1%
Business 3 year survival rate	-3.7%	-2.9%	-3.2%
Working age pop. with L4+ quals.	4.4%	4.1%	5.9%
Working age pop. with L3+ quals.	7.3%	7.2%	7.3%
Source: Annual Population Survey, BRES, Business Demography			

There are several key differences in the D2N2 rural and urban economies. Rural areas have a relatively high proportion of employment in the manufacturing sector (17% compared to 12% in urban local authorities) and a slightly higher proportion of employment in the hospitality (7% compared to 5%) and transport and storage (5% compared to 3%). Correspondingly, urban areas have higher proportions of employment in the business administration (12% compared to 9% in rural areas), health (16% compared to 12%) and wholesale and retail sectors (18% compared to 16%).

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Sectoral Profile of the D2N2 Rural and Urban Economy			
	Rural	**Urban**	**Total**
Wholesale and retail	16%	18%	17%
Human health and social work activities	12%	16%	14%
Manufacturing	17%	12%	14%
Education	11%	10%	10%
Administrative and support service activities	4%	12%	9%
Accommodation and food service activities	7%	5%	6%
Professional, scientific and technical activities	6%	5%	5%
Public administration	6%	5%	5%
Construction	5%	4%	5%
Transportation and storage	5%	3%	4%
Information and communication	2%	3%	2%
Arts, entertainment and recreation	2%	2%	2%
Other service activities	2%	2%	2%
Financial and insurance activities	1%	2%	2%
Real estate activities	1%	1%	1%
Water supply; sewerage, waste management	1%	1%	1%
Mining and quarrying	1%	0%	0%
Electricity	0%	0%	0%
Agriculture	0%	0%	0%
Total	100%	100%	100%
Source: BRES			

Rural economies make a substantial contribution to employment in D2N2's priority sectors. Employment in the visitor economy is particularly over represented in the rural local authorities (9.1% compared to 6.5% in urban areas), as is employment in the food and drink manufacturing sector (3.9% compared to 0.8%) and transport and logistics sector (4.4% compared to 2.6%).

Contribution to Priority Sectors of the D2N2 Rural and Urban Economy, % of total employment			
	Rural	**Urban**	**Total**
Visitor economy	9.1%	6.5%	7.5%
Construction	4.8%	4.5%	4.6%
Transport and logistics	4.4%	2.6%	3.3%
Creative industries	2.7%	3.2%	3.1%
Transport equipment manufacturing	1.6%	2.7%	2.3%
Food and drink	3.9%	0.8%	1.9%
Life sciences	1.0%	0.7%	0.8%
Source: BRES			

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Appendix 2: Priority Sector Definitions

The SIC code definitions of the priority sectors and other important sectors presented in the report are detailed in this appendix. The definitions have been agreed by the sector groups.

Visitor Economy

55: Hotels
56 : Food and beverage service activities
79 : Travel agency, tour operator and other reservation service and related activities
90 : Creative, arts and entertainment activities
91 : Libraries, archives, museums and other cultural activities
93 : Sports activities and amusement and recreation activities
Source: Measuring Tourism Locally, ONS

Advanced manufacturing

19 : Manufacture of coke and refined petroleum products
20 : Manufacture of chemicals and chemical products
22 : Manufacture of rubber and plastic products
23 : Manufacture of other non-metallic mineral products
24 : Manufacture of basic metals
25 : Manufacture of fabricated metal products, except machinery and equipment
26 : Manufacture of computer, electronic and optical products
27 : Manufacture of electrical equipment
28 : Manufacture of machinery and equipment n.e.c.
Source: Manufacturing and Knowledge Economy Report, Working Futures

Construction

F : Construction

Transport equipment manufacturing

29 : Manufacture of motor vehicles, trailers and semi-trailers
30 : Manufacture of other transport equipment

Transport and Logistics

49 : Land transport and transport via pipelines
50 : Water transport
51 : Air transport
52 : Warehousing and support activities for transportation
5320 : Other postal and courier activities

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Food and Dink Manufacturing

10 : Manufacture of food products
11 : Manufacture of beverages

Life Sciences

2660 : Manufacture of irradiation, electromedical and electrotherapeutic equipment
21 : Manufacture of basic pharmaceutical products and pharmaceutical preparations
47749 : Retail sale of medical and orthopaedic goods (other than hearing aids) nec, in specialised stores
46460 : Wholesale of pharmaceutical goods
325 : Manufacture of medical and dental instruments and supplies
721 : Research and experimental development on natural sciences and engineering

Creative Industries

7311 : Advertising agencies
7312 : Media representation
7111 : Architectural activities
47781 : Retail sale in commercial art galleries
47791 : Retail sale of antiques including antique books, in stores
1411 : Manufacture of leather clothes
1412 : Manufacture of workwear
1413 : Manufacture of other outerwear
1414 : Manufacture of underwear
1419 : Manufacture of other wearing apparel and accessories
1420 : Manufacture of articles of fur
1431 : Manufacture of knitted and crocheted hosiery
1439 : Manufacture of other knitted and crocheted apparel
1512 : Manufacture of luggage, handbags and the like, saddlery and harness
1520 : Manufacture of footwear
7410 : Specialised design activities
7420 : Photographic activities
1811 : Printing of newspapers
1813 : Pre-press and pre-media services
1820 : Reproduction of recorded media
5911 : Motion picture, video and television programme production activities
5912 : Motion picture, video and television programme post-production activities
5913 : Motion picture, video and television programme distribution activities
5914 : Motion picture projection activities
5920 : Sound recording and music publishing activities
9001 : Performing arts
9002 : Support activities to performing arts
9003 : Artistic creation
9004 : Operation of arts facilities
78101 : Motion picture, television and other theatrical casting
5811 : Book publishing

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5813 : Publishing of newspapers
5814 : Publishing of journals and periodicals
5819 : Other publishing activities
5821 : Publishing of computer games
5829 : Other software publishing
6010 : Radio broadcasting
6020 : Television programming and broadcasting activities
6201 : Computer programming activities
6202 : Computer consultancy activities
6203 : Computer facilities management activities
6209 : Other information technology and computer service activities
58120 : Publishing of directories and mailing lists
18129 : Printing (other than printing of newspapers and printing on labels and tags) nec

Other Sector Definitions

ICT/Digital

6110 : Wired telecommunications activities
6120 : Wireless telecommunications activities
6130 : Satellite telecommunications activities
6190 : Other telecommunications activities
6201 : Computer programming activities
6202 : Computer consultancy activities
6203 : Computer facilities management activities
6209 : Other information technology and computer service activities
6311 : Data processing, hosting and related activities
6312 : Web portals
6391 : News agency activities
6399 : Other information service activities n.e.c.
262 : Manufacture of computers and peripheral equipment
Note: SIC Code 62 (Computer Activities)is also included in the Creatives Industries sector.

Financial and Professional Business Services

64 : Financial service activities, except insurance and pension funding
65 : Insurance, reinsurance and pension funding, except compulsory social security
66 : Activities auxiliary to financial services and insurance activities
68 : Real estate activities
69 : Legal and accounting activities
70 : Activities of head offices; management consultancy activities
71 : Architectural and engineering activities; technical testing and analysis
72 : Scientific research and development
73 : Advertising and market research
74 : Other professional, scientific and technical activities
75 : Veterinary activities
77 : Rental and leasing activities
78 : Employment activities

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79 : Travel agency, tour operator and other reservation service and related activities
80 : Security and investigation activities
81 : Services to buildings and landscape activities
82 : Office administrative, office support and other business support activities

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