



Greater Lincolnshire LEP

Local Industrial Strategy

November 2019

Draft

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Draft

Foreword

[To be completed]

- Greater Lincolnshire is a place defined by our geography. Our opportunities , challenges and ambition are fashioned by the quality of our landscape and the potential that we can unlock through our endeavour and industry.
- Greater Lincolnshire’s unique history of land reclamation and water management has created one of the most productive agrifood regions in the United Kingdom.
- From the Humber to the Wash, we have a coastline that is an economic engine that support a thriving tourism industry and is the gateway to world trade via our ports and associated logistics.
- Our manufacturing and technical capacity is being forged by world leaders in renewable energy and specialist engineering.
- Greater Lincolnshire’s close association with the defence of the United Kingdom has created important gateways for skills and employment that will be of future benefit to many sectors.
- Greater Lincolnshire is opportunity. Greater Lincolnshire is shared ambition.

Executive Summary

Future proofing the UK's major agrifood economy, capitalising on our businesses, land and people to create a productive and resilient economy

Greater Lincolnshire is growing. One of largest LEP geographies, this dispersed economy is distinctive in its variety. The private sector is driven by micro and small businesses with one of the highest proportions of employment in small enterprises out of all LEP areas. It has a large manufacturing base, is home to much of the country's agrifood sector – from farm to manufacture – alongside strong energy and visitor economy sectors. Greater Lincolnshire is already driving innovation in areas such as agrifood, transforming the sector through robotics and automation. Large public sector assets in defence and health and care catalyse complementary activity from education to technology development. The broad sector base and wealth of small employers is a strong base to build from.

Rural, industrial, heritage city, and market towns all contribute to the economy as drivers of growth and innovation, attracting visitors, housing residents, and providing vital services. Population density is low across the area; there is space to grow but this can only be unlocked if the area has the appropriate mix of housing, employment and skills. This is complex in such a dispersed economy, requiring local and targeted interventions and investment; there is no one size fits all response to support Greater Lincolnshire to thrive. Place – or perhaps stronger places – is a thread which runs through this document.

Alongside the opportunity in local businesses and places, the evidence shows that the area faces challenges. Productivity and wages are low; 32% of employees are paid below the real living wage. There are signals that innovation is growing, but the area still underperforms national and regional averages. Skill levels are rising, but from a low base. The sectors which exhibit strong employment growth tend to be labour intensive, relatively lower skilled and lower paid, and producing lower levels of value. Infrastructure is fragmented, with an overreliance on the car. The population is ageing. Deprivation is widespread, but with some areas particularly disadvantaged. The focus here on the five foundations of productivity means that Greater Lincolnshire can look to address these issues while also pursuing the opportunities at hand.

Greater Lincolnshire is a £20.7bn economy, with ambitions to add £3.2bn to GVA by 2030. This Local Industrial Strategy will contribute to delivering this ambition. It identifies the area's distinctive strengths, opportunities and challenges, creating a strong foundation for growth. Success will be achieved through partners working together to boost productivity in all places and all sectors, creating a productive and resilient Greater Lincolnshire economy recognised for its businesses, land and people.

The strategic opportunities

Building on local strengths, assets and specialisms, the Greater Lincolnshire Local Industrial Strategy identifies strategic opportunities to deliver greater productivity and earnings

power. The benefits from pursuing these strategic opportunities will not be contained to the sectors which underpin them – rather, they are ambitious drivers to produce a stronger, more diverse economy which supports businesses, people and places throughout Greater Lincolnshire. The Local Industrial Strategy sets out the actions necessary for businesses to take advantage of these opportunities and navigate global trends.

Alongside a focus on the strategic opportunities which align most closely with Greater Lincolnshire's distinctive characteristics and comparative advantages, all sectors, places, and industries within Greater Lincolnshire's economy have a part to play. Issues and actions which are applicable to all people, places and parts of the economy are explored in detail within the five Foundations of Productivity.

Agrifood

Agrifood is 18% of the local economy (compared to 3% nationally). And it is growing. It is the source of 43% of new jobs and the heart of the sector's technological innovation through the Lincoln Institute for Agrifood Technology (LIAT), the National Centre for Food Manufacturing (NCFM), Riseholme College – Lincolnshire's specialist land-based FE college, and the three Food Enterprise Zones. This is a strong foundation for growth. As new technologies arise and new processes develop there will be opportunities to deliver food more efficiently to a growing global population. The opportunity for Greater Lincolnshire is to capitalise on these trends to improve productivity not only locally but in food production across the globe.

Energy and Water

Greater Lincolnshire's rural geography and proximity to nationally significant energy assets in the Humber Estuary and the North Sea mean it is well placed to pioneer new approaches that contribute to the Government's commitment to reach Net Zero UK carbon emissions by 2050. The Local Industrial Strategy will focus on local and rural energy production and distribution, enabling local businesses, residents and local authorities to engage in delivery of local solutions for local needs, whilst using the currently constrained energy infrastructure in a more efficient and affordable manner. This has the potential to transform how Greater Lincolnshire generate, distributes and uses energy and water.

Health and Care

The Local Industrial Strategy will look to spur productivity gains in health and care, one of Greater Lincolnshire's largest sectors by employment. Health and care services in Greater Lincolnshire are delivered to a population which is relatively older and more rural than the UK average. While health and care is a significant source of employment in Greater Lincolnshire, as a sector it is relatively unproductive. At the same time the health and care workforce will face 13,000 vacancies over coming years unless skills gaps are addressed. The Local Industrial Strategy is an opportunity to find innovative and cost-effective ways of providing quality health and care to an ageing and rural demographic. This has the potential to drive real innovation and efficiency in the sector and deliver better outcomes for some of the most vulnerable and hardest to reach residents.

Visitor Economy

50 miles of coastline, an area of outstanding natural beauty, and hundreds of visitor attractions contribute to a £2.39bn visitor economy sector which supports at least 30,000 full time equivalent jobs. Lincoln has seen major investment in recent years in both the castle and cathedral, developing a strong heritage city offer. However, productivity in the sector is low, caused in part by the current seasonality of Greater Lincolnshire's tourism offering and low wages. A priority is to promote Greater Lincolnshire as a year-round tourist destination, which will help to provide higher-quality and more reliable employment for workers in the sector and increase productivity. As the UK develops its place in the global economy, Greater Lincolnshire is responding through a strong visitor economy offer, which has the potential to deliver jobs and investment to the local economy.

Defence

Greater Lincolnshire has a strong aviation heritage. There are 5 active RAF stations. Lincoln was the one of the largest aircraft production areas in the world at its peak. Under current plans, there will be significant RAF investment in the Greater Lincolnshire area, plus a number of civil service and contractor posts will be created in order to support the development of these core sites. This creates a compelling case for focus on the defence sector. Maintaining and building on Greater Lincolnshire's strength in defence will help boost productivity across the whole area and make sure the UK remains one of the best places in the world to innovate, do business and create jobs in the sector.

The five foundations of productivity – supporting all businesses to grow

This Local Industrial Strategy is for the whole of Greater Lincolnshire and looks to maximise the gains for all places. However, not every intervention will impact every place at the same time or in the same way. The LIS draws from the evidence to use the five foundations of productivity to focus on targeted and evidence led responses to support all parts of the economy. This takes a broad brush approach open to every sector and business; it is not limited to the strategic opportunities above.

Ideas

Objective: Broaden and deepen the base of innovating firms in Greater Lincolnshire, aligning innovation with strategic opportunities

While Greater Lincolnshire does enjoy pockets of innovation and a core of businesses which lead R&D in their sectors, the overall picture is one of limited innovative activity. Greater Lincolnshire is determined to play its part in levelling-up the UK economy and to achieve this it will increase the quantity – at least trebling the level of investment to 0.6% of GVA - and spread of innovation across the whole of the region, ensuring that the economic and social value of these ideas are maximised.

More must be done to ensure Greater Lincolnshire's focused excellence in discovery translates into its application in industrial and commercial practices, and so into increased productivity. To do this, Greater Lincolnshire will focus on critical innovation strands in the sectors that underpin the strategic opportunities identified in this Local Industrial Strategy. This approach will be supplemented by efforts to raise the ambitions of Greater Lincolnshire's broader industrial base, supporting businesses of all shapes and sizes to drive innovation levels, impact and geographic spread.

Local Industrial Strategy priority actions are:

1. Stimulate and support wider innovation activity across all of Greater Lincolnshire
2. Equip businesses and industry leaders with the skills they need to innovate successfully
3. Turn focused excellence in innovation and research into commercial opportunities

People

Objective: Enable all residents to reach their potential in the local labour market and participate in a flourishing and inclusive economy

Greater Lincolnshire's working age population is shrinking; upskilling and retraining the existing work force is imperative, as is making sure the health system and public health measures support people to become – and stay - employed. Like many areas in the UK, the population is ageing. Over 22% of Greater Lincolnshire residents are aged 65 and over compared to 18.2% in the UK.

A major challenge for the area is to find suitably qualified and resilient residents to fill projected job vacancies. The Greater Lincolnshire economy is seeing demand for level 2 and above qualifications rise. Over 20% of Greater Lincolnshire's job vacancies are due to skills shortages. Whilst higher level skills will be important to the future economy, replacement demand will ensure that there continues to be a large number of job vacancies for people with level 1 to 3 qualifications. Responding to these challenges will require focus on the skills system and better supported pathways into employment for residents.

Local Industrial Strategy priority actions are:

1. Continue efforts to equip the workforce with high-quality, relevant training
2. Develop a programme to support residents to participate in the workforce
3. Partner with businesses to help them adapt and compete

Infrastructure

Objective: Ensure Greater Lincolnshire has the infrastructure it needs to support businesses, connect people, and be prepared for future growth and challenges.

Greater Lincolnshire's infrastructure requires renewed investment and a strategic approach to overcome three main challenges: providing essential infrastructure in a large, rural area

with a dispersed population; increasing connectivity with the rest of the country; and future-proofing the region against anticipated challenges – notably climate change, the future of mobility, and digitisation. Central to Greater Lincolnshire's infrastructure ambitions is the Greater Lincolnshire Strategic Infrastructure Delivery Plan.

Greater Lincolnshire's topography places 30,000 homes and 45% of its land mass at risk from flooding. Its strongest economic performers - the agrifood, visitor economy, and manufacturing sectors - are highly dependent upon water, and it is also one of Britain's driest areas. The Local Industrial Strategy will deliver the infrastructure needed to support businesses, connect people, and be prepared for future growth and challenges. This will encompass a broad range of interventions from flood defence to rail.

This will include a focus on the Ports. Greater Lincolnshire has multiple ports, including Immingham and Grimsby, Boston, New Holland and Sutton Bridge. Of these, the Ports of Immingham and Grimsby are the largest and are anchor institutions in the regional economy. The port of Immingham is the UK's largest port by tonnage, handling 46m tonnes of cargo every year, most of which are shipments of bulk products. A 2018 £36m investment in Immingham's container terminal is expected to support a 50% growth in volume by 2020. 12% of all UK cargo is handled in North East Lincolnshire, and Greater Lincolnshire's ports originate over 25% of the UK's rail freight. The ports are integral to Greater Lincolnshire's logistics industry, with the ports and logistics sector employing 25,000 people in the Humber in 2017 – an increase of nearly 50% since 2009.

Local Industrial Strategy priority actions are:

1. Develop and publish a Greater Lincolnshire Strategic Infrastructure Delivery Plan by early 2020
2. Improve inter- and intra- regional transport connectivity
3. Provide businesses with the digital infrastructure they require to grow and innovate
4. Ensure water is managed effectively as a strategic asset, an industrial input and as part of the area's natural capital

Business environment

Objective: Create a supportive business environment for entrepreneurs, micros and SMEs to grow and become more productive and resilient

The area's economy is built on a broad base of successful small and micro businesses, which account for 64% of local employment – the third highest proportion among LEPs. Greater Lincolnshire sees positive business growth rates and fair business survival rates - particularly in strategic opportunity areas - however, experienced an overall negative net business birth rate (-1.17%) in 2017. Lower than expected levels of new business start-ups potentially means fewer opportunities for scale ups, frontier firms and the general expansion of the business base.

In 2017, total imports into Greater Lincolnshire were £8.8bn from a minimum of 3,100 businesses. Total exports were £4.7bn from a minimum of 2,200 business. This is an important trading economy, with 62.9% of exports destined for EU countries. There are opportunities for more inward investment. Across Greater Lincolnshire there is a reasonable supply of land for business development and premises. A wide range of employment sites and new land allocations have been identified through local plans. However, the property market is relatively weak and some form of public sector intervention is often required to support the development of new business premises.

Supporting businesses to raise productivity through increased use of technology is a priority for Greater Lincolnshire. Prior analysis on digital connectivity showed that in certain areas broadband speeds remain too low for commercial use. Uptake of digital technology is low. The 2014 Business Survey showed 1 in 4 businesses do not have a website; 7 in 10 are not using a website for e-commerce. Access to capital is also an issue with Growth Hub grants helping SMEs invest in machinery to boost productivity.

Local Industrial Strategy priority actions are:

1. Support all businesses to grow, build resilience and raise productivity through effective use of technology solutions
2. Maximise the opportunities of the circular economy and energy for all businesses
3. Develop Greater Lincolnshire's place in the global economy
4. Focus on tailored interventions to capitalise on our areas of strategic opportunity

Place

Objective: Capitalise on the dispersed economy to create a leading polycentric, productive economy

Across every foundation of productivity in Greater Lincolnshire there is a strong place element which must be reflected in implementation. This is a large and rural area with low population density of just over 150 people per square km making it one of the most sparsely populated LEPs in the country. The LIS will capitalise on the dispersed economy to create a leading polycentric, productive economy.

Greater Lincolnshire's scale and varied area make it challenging to reach businesses and individuals when trying to roll out policy. Networks are more difficult to establish and often recruitment and access to training is a challenge. There is also a large inclusion challenge given the spatial inequalities within the area. This is prevalent not only in rural and coastal locations but also in some of the towns. Providing solutions to promote inclusion is vital in terms of inclusive growth and increasing the prosperity of areas.

The success of Lincoln increases the prosperity of the wider area. The Greater Grimsby Deal is pioneering the Town Deal initiative that is now being rolled out through the Stronger Towns Fund. The Local Industrial Strategy will look to capitalise on all of the area's urban

settlements, unlocking the potential of market towns as hubs for the distinctive parts of Greater Lincolnshire, creating an inclusive and distinctive contribution to the national economy and wealth. Alongside this, Greater Lincolnshire is strengthening the economy in rural areas through the LEADER programme. Its five areas respond to the distinctive attributes of the rural parts in the LEP area.

Greater Lincolnshire faces a challenge in delivering the number of homes needed to support the area's aspirations for growth. Housing delivery has been slower than expected, with developments constrained through viability and local infrastructure. There is strong evidence that without further action the housing delivery targets contained in Greater Lincolnshire's Local Plans will not be delivered. Support will be needed to overcome the existing undersupply, and to unlock housing sites that can be delivered by a wide range of suppliers including developers, investors, RSLs and the SME sector.

Local Industrial Strategy priority actions are:

1. Work together to make towns stronger, not individually but collectively
2. Invest in infrastructure improvements and complement this with reach to pockets of rural isolation
3. Develop a new local approach to delivering 100,000 homes.

Making it happen

Local partners working together will ensure that Greater Lincolnshire achieves the ambitions of this Local Industrial Strategy. This Local Industrial Strategy is based on a robust evidence base which has been developed through strong local leadership in collaboration with local businesses, education providers and institutions. It builds on the objectives set in Greater Lincolnshire's Planning for Growth spatial plan and supports objectives outlined in other strategy documents, including the Greater Lincolnshire Vision for Growth 2050 and local authority planning documents.

1. Greater Lincolnshire's Local Industrial Strategy

This is the Greater Lincolnshire Local Industrial Strategy (LIS). It is the result of collaboration between the Greater Lincolnshire Local Enterprise Partnership (GLLEP), ten local authorities, Innovation Council, Skills Advisory Panel, sector Boards, and business. Its development has been supported by an Independent Expert Panel, which brings together 6 national experts to test, check and challenge the content. It is informed by an extensive evidence base and identifies the opportunities and challenges facing Greater Lincolnshire and how it will respond.

Announced as part of the Industrial Strategy White Paper, local industrial strategies shape interventions to raise productivity and boost earnings power. This is important for Greater Lincolnshire where the productivity of workers and businesses underperforms the national averages with low average wages and high numbers of workers earning below the real living wage.

The Local Industrial Strategy is an opportunity to focus efforts on supporting strengths and opportunities and to address pockets of underperformance. Building on specific strengths, assets and specialisms, the Greater Lincolnshire Local Industrial Strategy identifies strategic opportunities which have the potential to deliver greater productivity and earnings power for all places and people, not just chosen sectors. It also sets out the actions necessary for businesses to take advantage of these opportunities and navigate global trends.

Although this Local Industrial Strategy focuses on the strategic opportunities which align most closely with Greater Lincolnshire's distinctive characteristics and comparative advantages, **all sectors and industries within Greater Lincolnshire's economy have a part to play**. Issues and actions which are applicable to all people, places and parts of the economy are explored in detail within the five Foundations of Productivity.

Greater Lincolnshire is also in the process of developing *Planning for Growth*. This sets out four objectives, designed and agreed locally to be the objectives of all economic, spatial and infrastructure plans. These are also the LIS objectives.

1. To increase the wealth (absolute as well as per capita) of Greater Lincolnshire by growing the economy and providing the right number and type of homes to support our economy and meet our housing need.

For the LIS this means focusing on the business environment and place shaping, alongside maximising the strategic opportunities set out in this document

2. To improve the quality of life across Greater Lincolnshire, promoting wealth creation and growth from which everyone benefits

For the LIS this means focusing on raising earnings power of residents, developing strong People and Place actions

3. To create a healthier society with a more engaged population

For the LIS this means developing the Health and Care strategic opportunity and broad skills and employment actions, coupled with the infrastructure to enable all to participate.

4. To ensure that Greater Lincolnshire, its economy, population and environment is resilient to potential threats, including climate change, and can benefit from future economic and technological opportunities.

For the LIS this requires actions relating to infrastructure and investment, place making and environmental protection.

Draft

Greater Lincolnshire Local Industrial Strategy

AMBITION

Future proofing the UK's major agrifood economy, capitalising on our businesses, land and people to create a productive and resilient economy

Success will look like...

Working together to boost productivity in all places and sectors

Planning For Growth Objectives

Increase wealth by growing the economy and providing the right number and type of homes to **meet housing need**



Improve quality of life, promoting wealth creation and **growth from which everyone benefits**

Create a **healthier society** with a more engaged population



Ensure the economy, population and environment are **resilient to future challenges**, including climate change, and can benefit from future economic and technological opportunities

A strategy which supports all parts of the economy:

Foundations



Ideas

Broaden and deepen the base of innovating firms in Greater Lincolnshire, aligning innovation with strategic opportunities



People

Enable all residents to reach their potential in the local labour market and participate in a flourishing and inclusive economy



Business environment

Create a supportive environment for entrepreneurs, micros and SMEs to grow and become more productive and resilient



Infrastructure

Ensure infrastructure supports businesses, connect people, and be prepared for future growth and challenges



Place

Capitalise on the dispersed economy to create a leading polycentric, productive economy

Strategic Opportunities



Agrifood

Increase the international competitiveness of the agri-food sector by championing automation and resource efficiency to benefit its food chain



Energy and Water

Become a rural innovation test bed for energy and water technologies in generation, storage and distribution, and maximise benefits from the energy cluster by adopting new 'whole of system' thinking to managing energy



Health and Care

Develop new models of care for a dispersed and ageing economy, building a cluster of local businesses to support active ageing



Visitor Economy

Grow the tourism sector yearly and promote GL as a leading tourist destination by building on recent investment, focusing on developing the UK's first LEP-wide tourism zone bid



Defence

Create a cluster of Defence companies and become a first-choice destination for Defence-related industries, service leavers and their families

The importance of places in the Local Industrial Strategy

Greater Lincolnshire is a £20.7bn economy, home to more than one million people, with ambitions to add £3.2bn to GVA by 2030. It boasts a mix of traditional manufacturing, a comprehensive agrifood sector, energy and services, and is strong in health and care and the visitor economy. In these sectors and others the area benefits from a large number of small businesses – a distinctive feature of the economy. This is a place with strong identities and significant assets. Covering an area more than 4.5 times larger than Greater London, Greater Lincolnshire is a large and polycentric place, with over 50 miles of coastline and one of the lowest population densities of any LEP. Greater Lincolnshire has room to grow.

Greater Lincolnshire’s dispersed economy is made up of distinctive market towns interspersed between rural, coastal, industrial and urban areas. It has varied economy with challenges and opportunities often concentrated by sector or place. This difference is reflected in (and drives) the strategic opportunities which capitalise on the distinctive natural and dispersed nature of the place.

This Local Industrial Strategy is for the whole of Greater Lincolnshire and looks to maximise the gains for all places and sectors. However, not every intervention will impact every place and sector at the same time or in the same way. The LIS uses the five foundations of productivity to focus on broad ranging responses which will support, for example:

- All parts of the business base to be more resilient and productive
- All residents to reach their potential in Greater Lincolnshire
- All places to be deliver inclusive growth and housing



Urban areas are showing potential for growth

Lincoln is a historic cathedral city with a thriving economic and cultural life, it lies at the core of a network of market towns, urban centres and ports, with space to grow that is unique in England. It has a population of almost 100,000 and the highest jobs density and the second highest business density after Grimsby. From 2013-2018 total population grew by 4%, jobs by 9%, and business growth by 20%. 51% of its population is below the age of 35, the highest among the towns. It is home to the University of Lincoln and many heritage assets. Compared with Greater Lincolnshire, Lincoln has a significantly higher GVA per head of £24,126, higher than East Midlands at £21,423 and closer to the UK average at £26,870. There are opportunities for growth particularly to capitalise on the innovation ecosystem, visitor economy and existing strengths in attracting foreign direct investment. Lincoln's success increases the prosperity of the wider area through the provision of HE, FE, opportunities for high-skilled employment, and access to services and amenities. Significant growth in Lincoln before 2010 has provided the impetus for well-planned growth there, as well as in Sleaford and in other growth points such as Gainsborough and Grantham.

Grimsby is a major industrial centre on the Humber Bank. It is Greater Lincolnshire's largest town by population at 101,000, and 47% of these residents are below the age of 35. Since 2013 there has been 17% growth in the business base, and 11% jobs growth. Looking forward, the North East Lincolnshire Local Plan provides a framework to create between 9,000 – 13,000 new homes and 8,800 new jobs in the Greater Grimsby area to 2032. It has a strong heritage in food production, most notably in its fishing and processing industry and is home to the largest port by tonnage in the UK. The pace and scale of industrial change in Grimsby has created low wages and productivity, high unemployment and challenges retaining businesses and skills in the area. The scale of change also bring opportunities for Greater Grimsby, particularly through its position in high growth clean energy industries as a hub for offshore wind. Greater Grimsby pioneered the Town Deal initiative that is now being rolled out through the Stronger Towns Fund. The initial projects are focused on reconnecting the town centre with its under-utilised waterfront. Furthermore, the recently launched Made Great in Grimsby brand intends to boost consumer recognition of the quality of the place's goods, particularly its seafood.

Scunthorpe has experienced 19% business growth from 2013-2018, although so far this has had only a mild positive effect on jobs (+4%) and population (+2%). Scunthorpe has a very substantial steel manufacturing industry, which provides employment for over 3,000 people and is integral to local and national supply chains. The town has a strong strategic location and is well served by rail freight links and a workforce with strong trade and manufacturing skills. Addressing social inequality and supporting inclusive growth arising as a result of industrial change is a major component of the plans for the town. Recent investment in the redevelopment of the former Civic Centre into the University Campus North Lincolnshire will support these aims, providing increased learning opportunities and embedding higher-level skills in the local economy.

To the west of Lincolnshire, more industrial market towns such as Grantham and Gainsborough are looking to capitalise on their strong heritage and connectivity to realise their potential. Grantham is a Growth Point and has approval for a housing village at

Spitalgate Heath. Gainsborough (along with North East Lincolnshire) has Housing Zone status and will play a significant role in delivering growth to the local area.

Grantham is the fifth largest town with a population of 39,038. Despite its small size, its population density is the second highest after Lincoln. It has the highest share of residents aged over 50 and the lowest share of residents below 35. Grantham's job growth is the second highest at 11%. Grantham has a strong military and engineering heritage, being the home of the caterpillar track and munitions production. Grantham's location grants it excellent connections into major national routes, sitting on both the A1 and East Coast Mainline as well as the A52, providing east-west connectivity from the Fens to Nottinghamshire.

Gainsborough is a gateway between Lincolnshire, Nottinghamshire and Sheffield City Region. Gainsborough is expected to see economic growth of 12% over the Local Plan period to 2036, including 2,150 new homes increasing the population to more than 30,000. However, there are still pockets of significant deprivation in Gainsborough with low levels of employment (lowest 4% across England) and living standards (lowest 2% across England). With similar challenges around industrial change to Scunthorpe and Grimsby, Gainsborough is a growth point with Housing Zone status due to its significant availability and affordability of land and proximity to towns and assets such as Scunthorpe, Lincoln, Doncaster and Doncaster Sheffield International Airport.

Within the key towns of Boston, Spalding and Holbeach, up to 40% of employment is within the food sector and its associated supply chain. The area's new assets, such as the National Centre for Food Manufacture, Boston College's Engineering, Manufacturing and Technology (EMAT) Centre, and the Holbeach Food Enterprise Zone, will capitalise on the existing strength of the local economic base. Management of water is imperative in this area, as it is across the border in New Anglia and Cambridgeshire. Stamford is also a gateway to Lincolnshire given its proximity to the A1 and Peterborough. It is an attractive town commanding stronger house prices than other areas of Greater Lincolnshire.

Rural and coastal areas are a core part of the Greater Lincolnshire identity

Rural and coastal areas constitute more than 90% of Greater Lincolnshire's landmass. Rural areas provide housing and a high standard of living. They provide a strong sense of place, identity, and cultural offer. The LIS recognises this and looks to capitalise on it further.

The traditional coastal resort towns such as Cleethorpes, Mablethorpe and Skegness have significantly different economies, challenges and opportunities to other towns in Greater Lincolnshire. The strong visitor economy contributes more than £2bn to the Greater Lincolnshire economy and supports at least 30,000 full time equivalent jobs, many in these coastal resort towns. However the labour market is markedly seasonal compared to other areas and connectivity is a major constraint. The risk of coastal flooding restricts housing and business growth.

The region's distinctive natural capital and varied geography is linked closely to its visitor economy and agrifood strategic opportunities. The South of Lincolnshire is an area

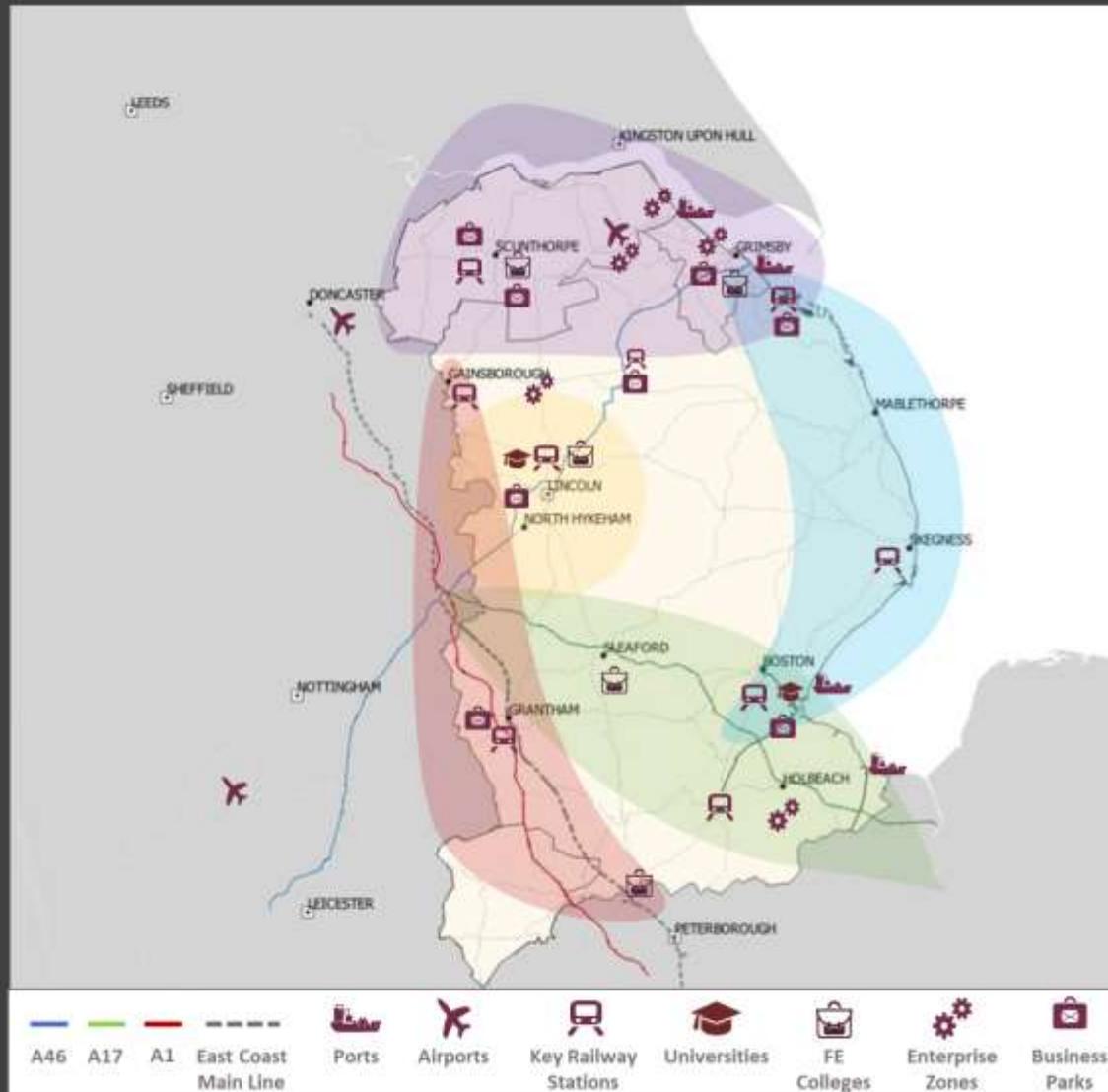
dominated by agriculture, food production and logistics. The A17 and A16 is a major corridor and central to Greater Lincolnshire's nationally important food sector. The Lincolnshire Wolds, an Area of Natural Beauty, has 14 sites of special scientific interest, as well as small settlements. Combined with the coast and large amount of Grade 1 agricultural land, Greater Lincolnshire is endowed with a variety of natural assets, which make a strong contribution to its economy and quality of place.

Rurality brings challenges too. Rural residents can have limited access to local amenities and public services. In some places less than 10% of the population are aged between 20 and 34; some locations have limited energy supply (no access to the grid); and low levels of connectivity (broadband, public transport and roads). The result of this is pockets of significant deprivation and rural isolation.

Growing resilient market towns

Connecting and sustaining much of Greater Lincolnshire are the market towns. The strength of the market towns provides a network of local centres that support the sparser rural populations of central and eastern Lincolnshire. Towns such as Sleaford, Louth, Horncastle, Market Rasen, Caistor, Brigg, Oakham and Bourne play a vital role for their local communities and are poised for considerable housing and employment growth. Successful initiatives to revitalise and re-imagine the role of the towns' high streets, together with reliable, fast online connectivity throughout the area, means that the working population is less reliant on a few major centres and better able to participate in the life of a wider range of local towns and communities.

Spatial corridors: Broadly described as the Humber Bank, the A1 Corridor, Greater Lincoln, Coastal Lincolnshire, and the A17 Corridor.



| The Humber Bank | |
|--|--------------------------------|
| Leading Strategic Opportunities | Requirements for growth |
| Energy and Water | Skills development |
| Ports and Logistics | Labour market support |
| Agrifood | |

| The A1 Corridor | |
|--|--------------------------------|
| Leading Strategic Opportunities | Requirements for growth |
| Defence | Sustainable housing |
| Visitor Economy | Flood defence |

| Greater Lincoln | |
|--|--------------------------------|
| Leading Strategic Opportunities | Requirements for growth |
| Health and Care | Sustainable housing |
| Visitor Economy | Innovation drivers |

| Coastal Lincolnshire | |
|--|--------------------------------|
| Leading Strategic Opportunities | Requirements for growth |
| Visitor Economy | Access to skills |
| Agrifood | Better infrastructure |
| Health and Care | Flood defence |

| The A17 Corridor | |
|--|--------------------------------|
| Leading Strategic Opportunities | Requirements for growth |
| Agrifood | Housing growth |
| Defence | Better freight links |
| | Climate mitigation |

THE ECONOMY



£20.7bn
economy

1.96% average
annual GVA growth
from 2012-2017



Ambition to
grow the economy by
£3.2bn by 2030

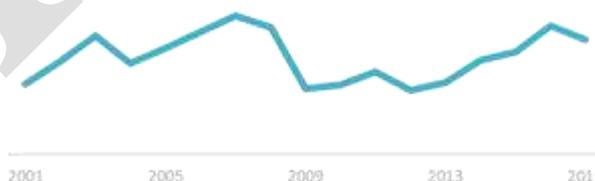


£18,625 GVA
per head
3rd lowest
among LEPs
in 2017



Manufacturing
largest sector at
20% of GVA

0.1% productivity decline
from 2007- 2017



The economy has grown by 27.7% since 1998. In 2017, Greater Lincolnshire's GVA per hour worked was £27.40 and the area has seen a 0.1% decline in productivity from 2007 to 2017. Declining productivity means that the productivity gap between Greater Lincolnshire and the UK has widened – from a gap of 18.1% in 2007 to 22.8% in 2017. This is a significant challenge to address; if Greater Lincolnshire's economy was performing at the national average it would add almost £9bn to GVA each year, a 45% increase in the total size of the economy.

The overall figures mask differences at more local levels. Some local authorities, such as Boston and South Holland, have seen fairly consistent economic growth since 1998. North Lincolnshire, on the basis of real growth in GVA, has not recovered from the effects of the financial crash, with an overall downward trend in performance from 2007/8 onwards. It is the only geographical area which is smaller in GVA terms in 2017 than it was in 1998, although at 19% of Greater Lincolnshire's economy it is still the largest area by GVA.

In 2017 there were 468,500 jobs in Greater Lincolnshire, with 35,500 new jobs created between 2012-2017. Lincolnshire (24,000 jobs) had the highest job growth in absolute terms, growing by 8.5% (UK job growth rate is 9.6%). North Lincolnshire (5,500 jobs) had 7.9% job growth and North East Lincolnshire (4,500 jobs) 6.9%. Rutland (1,500 jobs) experienced the highest job growth in percentage terms with 10.3%. There have been increases in employment in low-skilled, low productivity areas such as accommodation and food services, transport, and agriculture. These have been offset in part by an increase in higher productivity jobs in sectors such as Manufacturing and IT. This has been compounded by the economic restructuring that occurred in the past decade.

Cross Border Collaboration

Greater Lincolnshire is part of a broader economy. Its strengths and strategic opportunities complement activity in the Humber to the north, Derby, Derbyshire, Nottingham and Nottinghamshire to the west, and Norfolk & Suffolk and Cambridge & Peterborough to the south, particularly in agrifood, clean energy and logistics. The top commuter destinations for Greater Lincolnshire's residents are Peterborough, Newark and Sherwood, Doncaster and Hull. Similarly, residents from outside Greater Lincolnshire who commute into the area for work mostly come from these places.

Further afield, Greater Lincolnshire is integrated into the global economy, exporting £4.7bn and importing £8.8bn in goods and services in 2015. 62.9% of exports are bound for EU destinations and the main export destinations beyond the EU are China and the USA. Dominant export categories are chemicals (£650m) and machinery, transport and equipment (£522m). Through its ports – including the UK's largest port by tonnage, the Port of Immingham and Grimsby - and Humberside Airport (as well as Doncaster Sheffield Airport and East Midlands Airport) Greater Lincolnshire is well-connected to the world.

The Local Industrial Strategy identifies opportunities for close collaboration between Greater Lincolnshire and surrounding places which will deepen this integration. In

particular, the LEPs of Greater Lincolnshire, the Humber, and York and North Yorkshire form a “food belt”, with a substantial concentration of food manufacturing, agriculture and agri-tech businesses. This food belt has a vital role to play in improving the sector’s national productivity and sustainability. The three LEPs are working in partnership to develop the food sector across their areas, and will work with Government to set out their proposals in a joint Food Sector Strategy.

To the south Greater Lincolnshire shares objectives for the agrifood industry with New Anglia LEP and Cambridge and Peterborough LEP, both of which make substantial contributions to the UK’s agrifood industry. Discussions are ongoing between the Greater Lincolnshire LEP and the LEPs on its southern border about ways to collaborate to enhance the overall value and productivity of agrifood in the region.

Midlands Engine

Greater Lincolnshire champions Midlands Engine and works to shape and deliver its priorities. Pan regional working (set out through operating principles) complements sub-regional and local authority work – working at scale and joining up activity across the Midlands. This can and should continue, with Greater Lincolnshire proactively shaping the Partnership’s work through the Executive and Operating Boards.

Connectivity. Working with Midlands Connect to increase freight and trade access to the Midlands’ only ports. The development of the Trans Midlands Trade Corridor – largely defined by the A46, reaching from the M5 at Tewkesbury up to Grimsby and Hull via the A15 – will have transformational effect for Greater Lincolnshire. The corridor is an important economic spine, accounting for almost 9% of English GVA. The major ports in Greater Lincolnshire are a major part of the current and future corridor opportunity and Greater Lincolnshire will continue to support development of the Corridor approach in Midlands Connect. North and North East Lincolnshire Council are members of Transport for the North. Midlands Connect is committed to working closely with Transport for the North towards a mutual vision for rebalancing the UK economy through sustainable transport improvements.

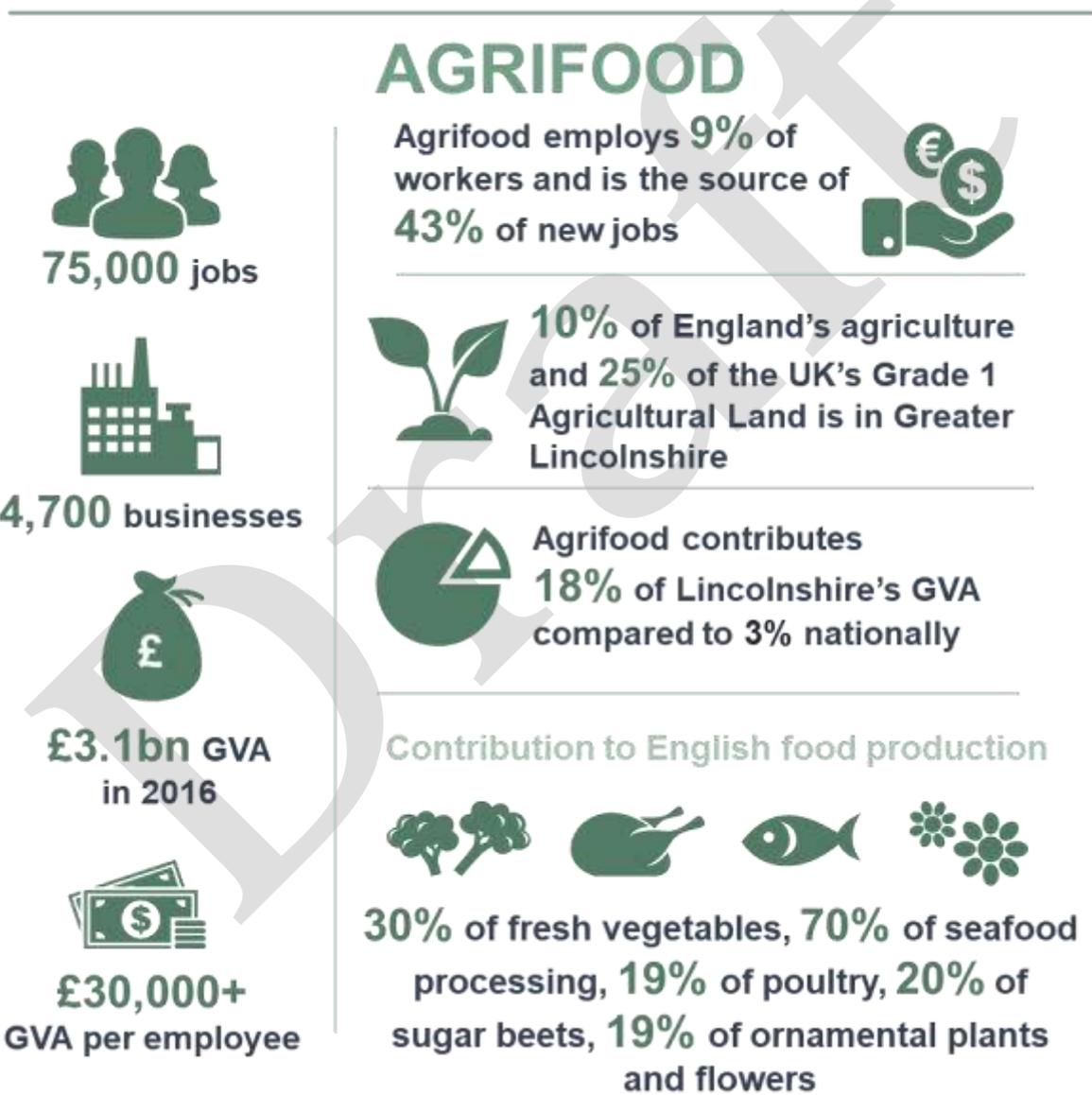
Innovation. University of Lincoln lead one of the innovation workstreams on future food processing. This arose out of the Midlands Science and Innovation Audit, which recognised the importance of this area to the Midlands economy. Greater Lincolnshire is leading activity and proposals for innovation for the region.

Internationalisation. Pan regional working gives the scale to promote Lincolnshire on a world stage, with internationalisation one of the main priorities of the Midlands Engine Partnership. Greater Lincolnshire intends to develop a sub-regional internationalisation strategy to complement and maximise local benefit of the pan-regional work and resource.

2. Strategic opportunities

Agrifood

Ambition: Greater Lincolnshire will increase the international competitiveness of its agrifood sector by championing automation and resource efficiency to benefit its food chain.



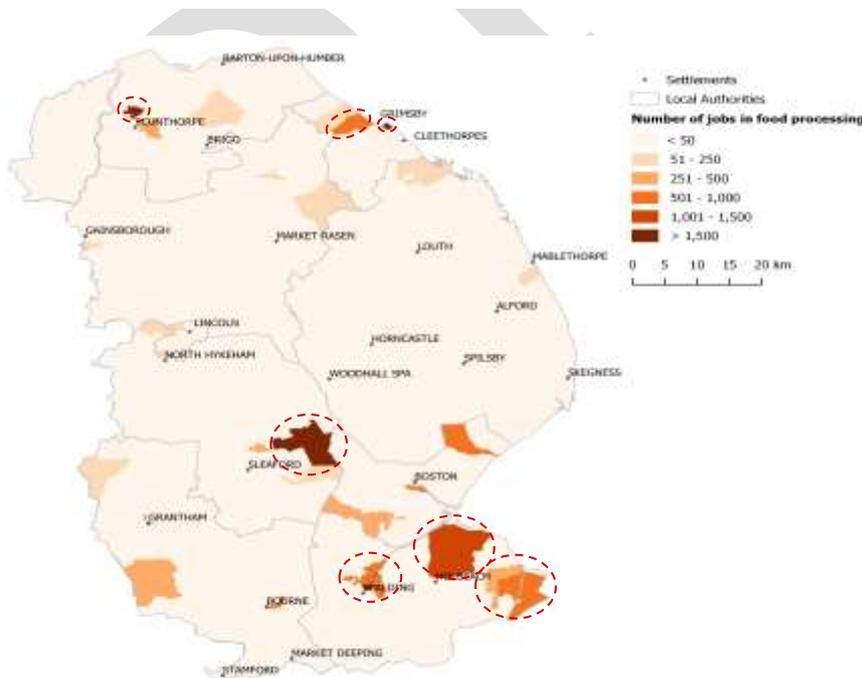
Greater Lincolnshire has a proud agricultural heritage and a promising future

The agrifood industry is a fundamental part of Greater Lincolnshire's history and will be a core part of its future. The area is strong in all parts of the food chain, from farming to food processing, manufacturing, marketing and logistics. The area produced £1.84bn of crops and livestock in 2016 which accounted for 10% of English agriculture, and supported 75,000 jobs in 4,500 businesses, ranging from family-owned farm businesses to some of the largest companies in the international food chain.

The sector generates 18% of local GVA, against 3% nationally, with large local employment. This makes Greater Lincolnshire the LEP area with the greatest dependence on food processing and distribution. This focus is supported by its knowledge base, with 29.3% of the Innovate UK grants offered in Greater Lincolnshire from 2014/15 to March 2018 focused on the themes of food supply and agri-tech.

The main concentrations of the food industry are in North East and North Lincolnshire and the South Holland and Boston areas of Lincolnshire, but the food industry has a very significant presence across the whole area. Food processing jobs, for example, are distributed throughout Greater Lincolnshire, with particular concentrations in the south east (see map). Many of the largest food chain companies are in rural communities where they are the dominant local employer. Some areas of Greater Lincolnshire, such as South Holland, have the highest concentration of jobs in food processing and distribution in the country.

Figure 1: Spatial distribution of food processing jobs in Greater Lincolnshire



These rural and sparse communities also have some of the lowest workforce qualification levels in the UK. Improving the skills levels and quality of employment in the food chain can have a major impact on the socio-economic progress of these poorer areas. It is therefore vital to prioritise support for higher value jobs, through skills, investment and innovation, in these areas.

The area has over 70 large food producers, of whom over half are part of larger international companies. Companies such as Bakkavor, with 18,000 staff, are centred on Lincolnshire where a third of their workforce are based but operate globally. Greater Lincolnshire is the centre of the fish processing industry, with a cluster of 65 fish processors including the largest UK producers such as Youngs and Morrisons fish processing facilities. The area also hosts plants operated by some of the world's largest food companies globally such as Pepsico, Danish Crown and Moy Park.

The area has the UK's greatest concentration of food logistics companies with an estimated 30% of national food shipments passing through south Lincolnshire in the food chain. The Spalding area dispatches between 1,000-1,200 finished lorry loads of food per day into the food chain. The south bank of the Humber has a major food logistics sector supporting its fish and added value food sector. There is also a growing food logistics cluster on the A1 corridor in the west.

There are opportunities for UK market growth as consumers spend more on food and the population grows, as well as substantial opportunities for import substitution given that only 55% of UK food demand is met from the UK. There is also potential for increased exports, particularly for higher value-added premium products, where global demand is increasing rapidly (6% per annum value growth but under 2% volume growth) and UK products have a reputation for high quality and clear traceability.

CASE STUDY

Grimsby's fish processing cluster and the Made Great in Grimsby brand

Greater Lincolnshire is rightly proud of the fish processing cluster in Grimsby. The acknowledged home of UK fish processing is built on a local heritage of fishing and fish processing and, whilst most fish consumed in the UK is now imported, the fish processing sector in Grimsby remains vibrant and dynamic.

With more than 60 fish processing companies, directly employing about 5,000 people and thousands more employed in the wider supply chain, the fish processing sector is vital to the North East Lincolnshire economy.

The long term prospects for the seafood sector is strong with recognised benefits for health and innovative new fish products being created to appeal to busy consumers who also want products which are convenient to use. The industry's long term aim is to increase UK fish consumption by 75% to 2 portions per person per week by 2040, to meet Public Health England recommendations. This would mean additional sales of over £4billion per year for fish products in the UK and guarantee the sector a strong future.

The UK fish processing industry has real growth potential both in UK and international markets. With the UK leading global initiatives to ensure sustainable fisheries, the newly launched Made Great in Grimsby brand will help consumers buy Grimsby's fish products with confidence and help Grimsby's fish processors realise their growth potential.

New technologies, evolving consumer preferences and shifting labour market conditions are changing the agrifood industry

Greater Lincolnshire's food industry must lead the transition towards greater automation and productivity, and do so in a way that supports the region's environment. The sector in Greater Lincolnshire (and globally) has a high dependence on manual labour and, in the UK, much of this has been met by EU migrant workers who fill roles at every level in the industry, with many having been in the region's food industry for many years. Given the anticipated reduction in access to migrants from Europe, working in the industry must be made more productive and more attractive to UK employees. At the same time the living wage has been estimated to represent a wage cost increase of £10billion per annum in the UK food chain by 2020.

The twin challenges of workforce availability and wage cost pressures means investment in labour productivity is essential to industry competitiveness. This is recognised by Greater Lincolnshire's food chain companies and they are investing to address this challenge, but the rate of investment and productivity growth could be substantially increased through further innovation and investment support. Culture change and skills are essential to help facilitate this change. Many food chain companies

remain uncertain about which investments to make or their specialist nature requires bespoke machinery and applied R&D to develop new solutions.

Greater Lincolnshire is already capitalising on the changing industry

Efforts to provide businesses with the support they need to capitalise on emerging technologies and markets are already underway in Holbeach at the University of Lincoln's National Centre of Food Manufacturing - a nationally important centre with a focus on robotics and automation in food production. There are also advanced plans to develop a new food-focused R&D cluster on a neighbouring Food Enterprise Zone (FEZ) within Holbeach that will complement the offer from two further FEZ sites (Europarc and Hemswell Cliff) across Greater Lincolnshire.

The LEP has been focusing on the strategic case for food chain investment since its agrifood sector plan was developed in spring 2014. This led to the creation of a dedicated Food Board with senior executives from more than 20 of the area's largest food companies. The Food Board took the lead on a 2017 update to the sector plan to respond to Brexit, the introduction of the National Living Wage and the development of technology.

CASE STUDY

Lincoln Institute for Agri-food Technology and National Centre for Food Manufacturing

Applied research programmes to support new agrifood technologies are undertaken by the National Centre for Food Manufacturing (NCFM) and Lincoln Institute for Agri-food Technology (LIAT), both part of the University of Lincoln. In the last 4 years, LIAT and NCFM have developed over £25m of new applied research projects with industry focused on automation, digitalisation and resource efficiency and secured £10m in capital investment. LIAT now has the largest agrifood robotics team in Europe as a result of investment by industry and the public sector, but demand is outstripping supply and meeting industry need is constrained by resources.

Climate change presents risks and opportunities

The Agriculture Bill and the end of the Common Agriculture Policy will bring about a seismic shift in land management, business structure and food production and land use in Greater Lincolnshire. While the pursuit of productivity will remain the driver for many, other landowners may begin to focus on different opportunities in tackling climate change, building biodiversity and improving soil health.

The impacts of climate change present a direct challenge to the heart of this area, with increasing pressure predicted on water supplies in the future, and some producers already reporting difficulties in growing their businesses due to insufficient supplies of clean water. Developing a strategic approach to water resource management means that the water managed within the extensive EA and IDB drainage systems can be stored more effectively in times of flood, and then deployed to where they are needed in times of water scarcity.

Flooding is also a problem. Greater Lincolnshire's low laying land provides fertile soil where food producers have clustered. The entirety of the Grade 1 Agricultural land falls within Flood Zone 2 as defined by the environment agency, with around one third of Greater Lincolnshire's area falling within Flood Zone 2 or 3.

The food chain is responsible for 14% of UK energy demandⁱ, with food refrigeration and the cool chain alone responsible for over 10%. The food chain is a major sector for the application of demand side response and smart grid technology and is central to proposals to develop a rural innovation testbed for energy and water. This will draw on the use of AI and advanced data processing. The Committee on Climate Change have proposed that to help address climate change the UK needs to double bio-energy production to 15% of energy demand by 2050. The agrifood supply is at the heart of this challenge. LIAT has helped lead the largest IoT project in the UK which looked at how to use sensor systems and AI to reduce Tesco's refrigeration energy use.

Actions to support the agrifood strategic opportunity

Together, local partners will:

- Develop Greater Lincolnshire as a centre of innovation in all parts of the agrifood supply chain, maximising the value of the National Centre for Food Manufacturing, the Lincoln Institute for Agri-food Technology and agrifood clusters in the Food Enterprise Zones.
- Develop agrifood energy efficiency (SmartLINC ERDF project) and food waste circular economy projects (CERES fund).
- Work through projects including the COTEMACO Interreg project, existing Innovation/Productivity Programme (ERDF) and the Growth Hub to promote the uptake of automation and resource efficiency by the food industry.
- Develop and implement a sector skills plan to upskill the industry through apprenticeships and higher education programmes provided by the Lincolnshire Institute of Technology's specialist agri-food centres at Riseholme College and the National Centre for Food Manufacturing.

- Continue to work with Water Resources East and implement a Water Management Plan to promote resource efficiency, including food-chain resource efficiency and innovation.
- Build on existing Hunan Lincolnshire partnership agreement to support bilateral trade & knowledge exchange with China.
- Seek investment in infrastructure to support growth of the agri-food sector, such as upgrades to the A15, and improved rail freight links.
- Work in partnership with Humber and York, North Yorkshire and East Riding LEPs to grow the agrifood sector and enhance its productivity across the three LEP areas. This will include putting in place joint governance and engagement arrangements for the food sector and exploration to develop a joint Food Sector Strategy, which will set out the actions and roles the LEPs will take.
- Work in partnership with New Anglia and Cambridgeshire and Peterborough combined authority to explore, strengthen and formalise the relationship in the Agritech and Food production sectors between business, key institutions and LEPs.

Working with HMG

Greater Lincolnshire LEP is already working actively with HMG on some of the areas proposed through: its seat representing all LEPs on the Food and Drink Sector Council; co-chairing the LEP Food and Drink Network which it has helped establish with DEFRA (and which now has 26 LEPs engaged); the work of the LEP and University of Lincoln on the Made Smarter Review food sector strand; and leadership of the Midlands Engine Future Food Processing theme.

Greater Lincolnshire wants to build on these established links in HMG to develop the additional and focused interventions of this Local Industrial Strategy. These will allow Greater Lincolnshire to take the lead with government on delivering the transformational change needed in the uptake across the sector of food chain automation, trade and efficiency programmes.

This will directly benefit Greater Lincolnshire's largest industry at the same time as creating spillovers into other LEP areas and the national economy, which can also gain from the productivity gains demonstrated in Lincolnshire.

Greater Lincolnshire is keen to engage with the following government departments for the agri-food part of the LIS:

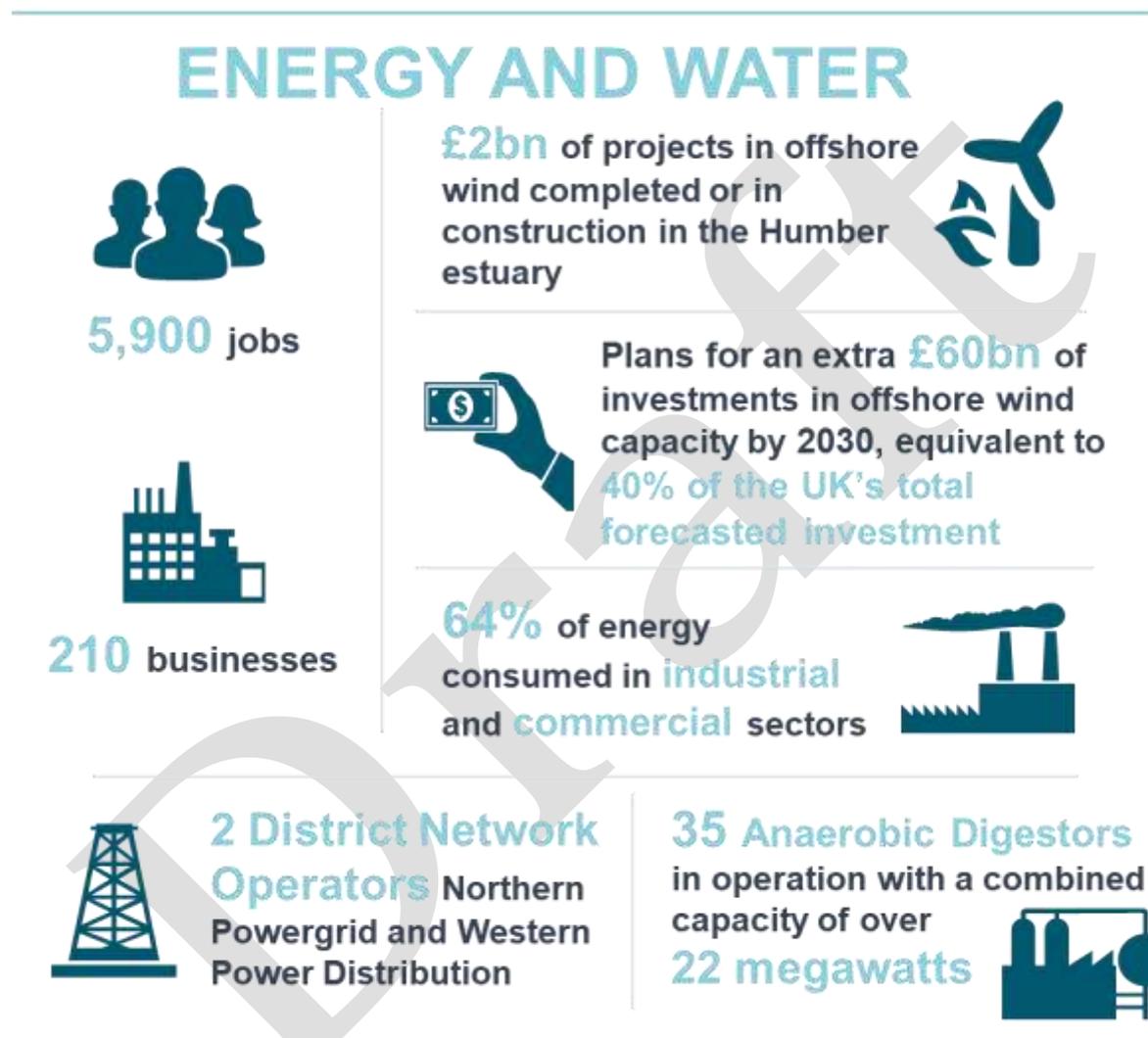
- DEFRA, with a focus on the Industrial Strategy and Food Strategy teams;
- BEIS, with a focus on teams responsible for Universities, the Made Smarter Review and agri-tech;

- DfE, with a focus on apprenticeships and workforce development;
- DfT on infrastructure investment to support the agrifood sector
- DIT, with a focus on the agri-tech and Food teams, to both develop the potential for export at the same time as attracting FDI into Greater Lincolnshire. A specific ambition is to lead a strategic UK China programme focused on developing an Agri-food Trade and Technology Platform;
- UKRI, with a focus on the Innovate UK agri-tech and Transforming Food Production teams.

Draft

Energy and Water

Ambition: Greater Lincolnshire will become a rural innovation test bed for energy and water technologies in generation, storage and distribution, and maximise benefits from the energy cluster by adopting new 'whole of system' thinking to managing energy



An existing asset base and future demand for energy and water

Energy and water in Greater Lincolnshire is a strategic industry in its own right and an industry which underpins the growth and performance of all other industries in the region. The majority of energy consumption is from industrial and commercial activities (64%), almost double that of nearby New Anglia LEP (33.6%).

Directly employing nearly 6,000 people across more than 200 businesses, the industry covers a diverse mix of energy and heat generation methods – including the offshore wind industry and innovative Anaerobic Digester plants – as well as electricity and heat distribution operations. Substantial recent and historic investment in energy assets look

small in comparison to the extra £60bn of investment in offshore wind capacity planned for sites off Lincolnshire's coastline.

Over just a few years, the Humber has transformed into one of the world's leading hubs for clean energy. Now the Humber Energy Estuary has a vital role to play as the offshore wind sector scales up to deliver the Sector Deal. As a result of the Sector Deal, low-cost offshore wind could contribute up to a third of UK electricity (30GW) by 2030 – the result of over £40bn of investment in infrastructure over the next decade. The industry predicts that employment will rise from 7,200 to 27,000, and is committed to increased diversity.

The energy and water sector – in Greater Lincolnshire and globally – is transforming in response to the climate, new technologies and changing consumer preferences. Greater Lincolnshire's rural geography and proximity to nationally significant energy assets in the Humber Estuary and the North Sea mean it is well placed to pioneer new approaches that contribute to the Government's commitment to reach Net Zero UK carbon emissions by 2050.

Addressing local capacity constraints to unlock industry growth

Despite having energy generating assets that help supply energy to the rest of the UK, parts of Greater Lincolnshire suffer from significant energy capacity constraints. These constraints hinder local industries and make it difficult to accommodate population growth in new housing.

There are specific challenges in the local area due to the dispersed economy, isolated rural areas, inflexible existing energy infrastructure, and high costs and delays in implementation. Recent studies carried out by the Greater Lincolnshire LEP show that developments can be stalled by the lack of power or by the costs of dealing with unforeseen reinforcement costs, which are projected to cost £250m over the next twenty years. Specifically:

- Because most of the Greater Lincolnshire area is rural, agricultural land, it has a thinly stretched, radial grid, which is much weaker than a network grid found in denser urban areas.
- Low land values in some parts of Greater Lincolnshire means it is often very difficult to persuade developers to pay for upgrades to the electricity distribution network, as the levels of profit on new development is already low.
- Energy capacity constraints will make it increasingly more difficult to deliver the housing and employment land needed to deliver growth.

A prominent example is South Holland, where major assets include two operational gas fired power stations and a third under construction. It is also where the power cable that links the Race Bank, Inner Dowsing and Linc's offshore windfarms makes landfall. However, at the same time, a number of housing and commercial sites in the district suffer from utility constraints, with larger sites most affected. It is important that local areas can benefit from

Greater Lincolnshire's many energy assets as the transition to a more flexible and decentralised system continues.

Draft

MAJOR ENERGY ASSETS



Hornsea 1 is the world's largest windfarm, managed from Grimsby



A network of gas pipelines supplying energy across the UK near Theddlethorpe Gas Terminal



6 major oil refineries out of 15 across the UK



University of Lincolnshire's Power and Energy Group at the Engineering School doing research on electric & hybrid vehicles, and energy systems management



More battery storage units planned



The UK's largest offshore wind operation and maintenance base is in North East Lincolnshire



By 2030, up to 20GW of additional offshore wind capacity will be installed at the North Sea across the major Round 3 development sites at Dogger Bank, Hornsea and East Anglia



5 gas turbine power stations with a total capacity of 4.4GW

North Lincolnshire progressing ABLE Marine Energy and ABLE Logistics Park



Holbeach Food Enterprise Zone will be a research centre for agricultural process and food manufacturing with relevant applications to energy, water and waste



35 Anaerobic Digestors with a combined capacity of over 22 megawatts



North Hykekam and Newlincs Energy from Waste plants have a combined capacity of 220 kilotons per annum

Opportunity to capitalise on existing assets through the Local Industrial Strategy

The LIS will unlock the potential of local and existing energy infrastructure by improving 'whole of system' demand and supply side understanding along with knowledge of local energy infrastructure and assets, local needs and future ambitions. This whole of system approach to energy – thinking about how local solutions can contribute to solving national problems – is especially pertinent in rural regions and Greater Lincolnshire's energy industry is therefore well-placed to advance this approach.

In this way it will be possible to enable local businesses, residents and local authorities to engage in delivery of local solutions for local needs, whilst using the currently constrained energy infrastructure in a more efficient and affordable manner. This will include independent, localised energy generation (through solar power or anaerobic digestion) and storage (through batteries) to address local capacity constraints in isolated areas which are prohibitively difficult to connect to traditional electricity grids.

Becoming a rural testbed for energy and water technologies

Developments in energy technology are revolutionising the sector. Greater Lincolnshire will use its distinctive rural aspect and nationally significant local infrastructure assets to become a testbed for how emerging energy technologies can be applied to rural areas. This will serve as a catalyst to help unlock growth; businesses in Greater Lincolnshire's energy industry can build their capacity and know-how and export the knowledge and innovation globally.

Globally, there are a number of challenges and opportunities which Greater Lincolnshire will capitalise on to create the rural testbed:

- Within energy generation the cost of renewable energy has fallen dramatically as better methods of construction and improved reliability have made renewables more commercially viable.
- Within distribution, smart grid approaches have been developed, where the usage of energy is monitored in detail and connected appliances and properties can 'communicate' with one another to minimise wastage and lower costs.
- Distribution Network Operators (DNOs) are making the transition to being Distribution System Operators (DSOs) which means they will be responsible for ensuring demand can be met by generation. They are procuring flexibility services for selected areas to incentivise consumers to avoid consumption at peak times. As energy demands grow, these services will be rolled out across wider areas.
- Within the waste sector artificial intelligence is beginning to be used to sort waste, and improvement in recycling technology has greatly increased the proportion of waste that is recycled.
- Within transport new technologies - in particular electric vehicles - are helping reduce greenhouse gases from transport, but are also increasing pressure on the energy distribution network. As Electric Vehicles replace fossil-fuel powered

vehicles they will induce extra demand for electricity and place increased pressure on the electricity grid. This pressure can be alleviated by charging stations which have their own source of energy generation and storage independent of the national grid.

- Within the construction sector there will be potential for local energy solutions to be tested and implemented in the development of strategic housing and employment sites, including in Sustainable Urban Environments (SUEs) such as the Western Growth Corridor.

Supporting SMEs to engage in the circular economy

With the increasing importance of Net Zero, and the Carbon 2050 agenda, successfully integrating SMEs into the circular economy will have a substantial impact on the UK's carbon reduction efforts. Initial delivery approaches supporting businesses in Greater Lincolnshire to engage with the circular economy include information and networking events, access to advisors, and specialised Growth Hub support. There will be further refinements to this initial delivery process to take into account Midlands Energy Hub activity, and innovation/research findings, as the agenda unfolds.

Maximising the value of the Humber Energy Estuary

Greater Lincolnshire will support the Humber to deliver their ambition of zero carbon by 2040 through increased decarbonisation, as outlined in the Humber's Energy Estuary vision. Building on earlier investments, the Humber has the ambition to deliver at least 10GW of deployed offshore wind capacity by 2030 – one third of the UK total. The value of the UK's offshore wind operations and maintenance (O&M) sector is around £600m/year today and forecast to exceed £2bn by 2030. Building on the Humber Estuary's leading capability in offshore wind operations and maintenance is an immediate opportunity for securing high-value and sustainable growth. The Humber's O&M cluster is centred on the Port of Grimsby.

The Humber LEP, through its Local Industrial Strategy has set an ambition to continue to develop the Humber as a global leader in clean energy generation. Through the linkages with North and North East Lincolnshire, both Greater Lincolnshire LEP and Humber LEP play a vital role in driving the clean energy agenda. The Humber's focus on off-shore wind, energy-intensive industries and the decarbonisation agenda complement the more rural focus provided within Greater Lincolnshire.

Actions to support the Energy and Water strategic opportunity

Together, local partners will:

- Use Greater Lincolnshire's rurality and proximity to nationally significant energy assets as opportunities to become a testbed for the application of new energy technologies in rural contexts.
- Work with local delivery partners and industry to link generation from local hubs to the national grid and address existing local capacity constraints.

- Target digital and engineering skills by developing a revised Education and Training Needs Assessment & Deliver Plan for Higher and Further Education.
- Deliver as part of the Energy Strategy a Carbon Neutral Business Zone.
- Support SMEs to engage with the circular economy through better information and guidance.

Working with HMG

Greater Lincolnshire LEP is already working actively with HMG on key issues in energy and water, and is engaged with the ERDF SmartLinc proposal. It has also instigated a commission to look at Energy Demand scenarios and methodology for the Greater Lincolnshire area. Greater Lincolnshire is keen to build on these established links in HMG to develop the additional and focused interventions highlighted in this Local Industrial Strategy.

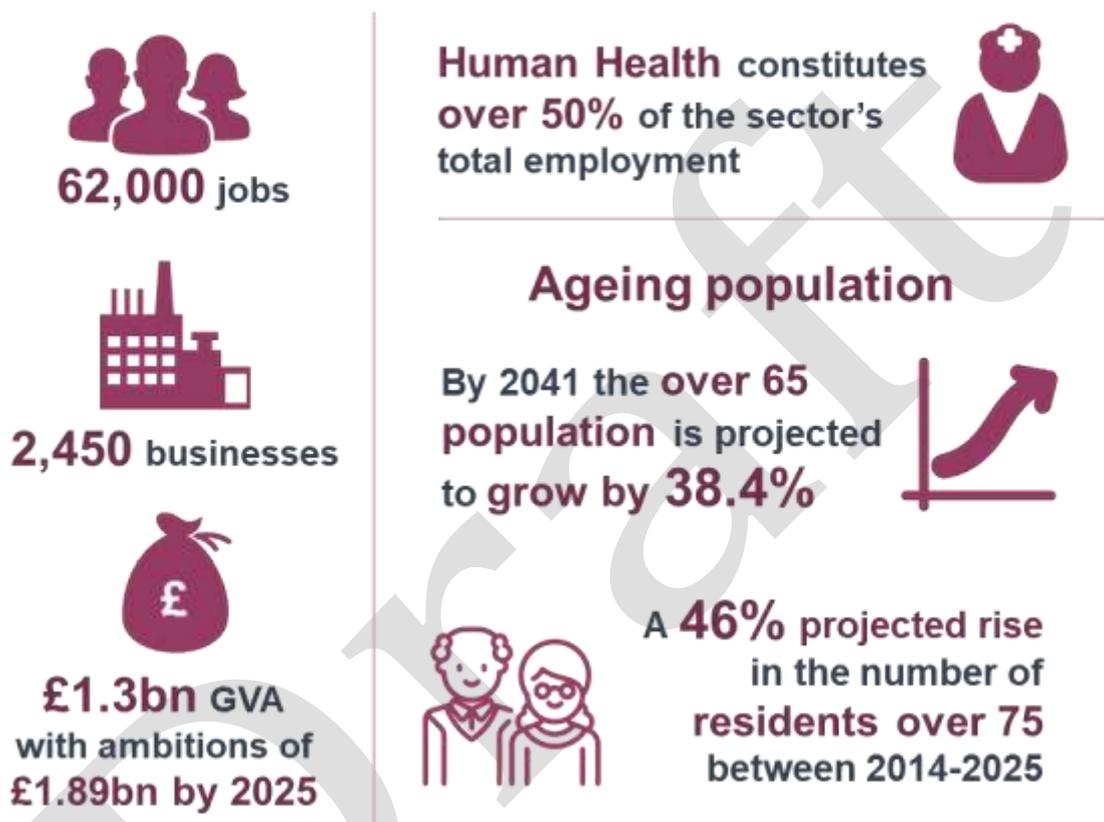
Further, Greater Lincolnshire will coordinate with utility providers so that their work programmes are planned on the basis of local strategies for development.

In addition, working with HMG will add value to Greater Lincolnshire's energy sector by ensuring that the actions delivered locally are aligned with government investment and policy – including primarily Net Zero. This will enable Greater Lincolnshire to both secure support for its interventions, and to act as a testbed for the Energy Sector development programmes which could then be utilised in other LEP areas.

Health and Care

Objective: Greater Lincolnshire will develop new models of care for a dispersed and ageing economy, building a cluster of local businesses to support active ageing.

HEALTH AND CARE



Providing health and care services to Greater Lincolnshire's residents

While health and care is a significant source of employment in Greater Lincolnshire, as a sector it is relatively unproductive. Since 2014 Greater Lincolnshire's health and care sector has failed to keep pace with productivity gains made in the sector throughout the UK and now lags national metrics.

Health and care services in Greater Lincolnshire must be delivered to a population which is relatively older and more rural than UK averages. On current trends the population will get older - in some parts of Greater Lincolnshire three over 60s arrive for every two 16-24 year olds who leave. Greater Lincolnshire's rural environment and distribution of smaller towns supporting an older, dispersed population does not fit the standard pattern for NHS provision, which tends to be focused on urban concentrations of service delivery. There are also fewer NHS workers per head of population in rural areas due to recruitment and retention issues, which is a major driver of rural health inequalities.

The dispersed population also makes it relatively more expensive to deliver adult social care because of the travel times involved in accessing those who are being cared for. The situation is exacerbated by the fact that rural local authorities have less to spend per head of population on the provision of care.

These challenges must be met while the health and care workforce faces 13,000 vacancies over coming years. Vacancy rates in the sector vary across areas, ranging from 3.4% (North Lincolnshire) to 11% (Rutland). A recent Skills For Care report (2019) also identified a 38% turnover rate for workers leaving their role within a year of starting, a 50% turnover rate for care workers on zero hours contracts and a 3.9% or 700 staff vacancy rate for adult social care workers at any one time in Lincolnshire county alone.

Greater Lincolnshire is typical of many rural settings in that:

- 80% of rural residents live within 4km of a GP surgery, compared with 98% of the urban population and only 55% of rural households compared to 97% of urban households are within 8km of a hospital.¹
- The ratio of NHS staff in the 10 most rural Sustainability and Transformation Partnership (STP) areas compared to England is 1: 1.45 and there are exceptionally acute shortages in Doctors, Midwives and Consultants.²
- The 7 most rural hospitals in England – including Pilgrim Hospital in Boston (3% of the total) account for 23% of all debt in the sector.³
- Rural areas have a proportionately higher share of older people with more significant costs associated with health care. More than 40% of spending in the NHS is devoted to people over 65.⁴ The proportion of Greater Lincolnshire's population over 65 is predicted to grow by 38% by 2041.
- Adult Social Care is increasingly unaffordable across England and represents a disproportionately high proportion of county councils' budgets. For example, from 2013-18 the proportion of the Lincolnshire Council's gross budget spent on adult social care rose from 29 to 42%.⁵
- Across Lincolnshire,⁶ the total population aged 65 and over with a limiting long term illness is projected to increase from an estimated 84,301 in 2017 to an estimated 123,865 in 2035, which is around 47% of that population. This is slightly lower than the national rise of 49% and the regional figure of 51%,⁷ however it points to the significance of the challenge of providing suitable

¹ Public Health England – Midlands Rural Seminar July 2018

² Rural Workforce Issues in Health and Care, Green, Bramley, Annibal and Sellick, University of Birmingham October 2018

³ Rural health care, A rapid review of the impact of rurality on the costs of delivering health care, Palmer, Appleby and Spencer, January 2019

⁴ Ageing Britain: two-fifths of NHS budget is spent on over-65s, Robineau, Guardian, 1/2/16

⁵ Lincolnshire County Council 2018

⁶ Figure is for Lincolnshire only, however Greater Lincolnshire as a whole is likely to experience a similar increase

⁷ Lincolnshire Research Observatory JSNA Topic: Housing & Health, June 2018

housing and support for independent living to support healthy outcomes for the ageing population.

*** Final draft to include call out box on health hotspots displaying the information below ***

The Joint Strategic Needs Assessments for Lincolnshire, North and North East Lincolnshire identify a number of key health hotspots. Coastal settings are particularly challenged in terms of:

A skewed ageing demographic profile

A lack of clinical staff, linked in part to the relative isolation of the area

A significantly higher than average level of poor health behaviours

A dependency on migrant labour to address local skills shortages and hard to fill vacancies.

There are also pockets of poor health outcomes in the major settlements in the LEP area in Grimsby, Lincoln and Scunthorpe.

National assets to transform the sector

As outlined above, Greater Lincolnshire's health and care sector must meet a variety of challenges. Fortunately recent momentum and new assets mean it is well placed to do so. Lincoln has a significant cluster of medical expertise including at the University of Lincoln a School of Life Sciences and Pharmacy, a new Medical School (opened in September 2019), a Science and Innovation Park and the National Centre for Rural Health and Care. All of these institutions will help to generate innovative activity and raise the profile of the health and care sector as an employer of choice.

CASE STUDY

National Centre for Rural Health and Care

The establishment of the National Centre for Rural Health and Care (NCRHC) in Greater Lincolnshire brings national expertise in rural health and care to the area. The NCRHC is an independent body with links to the University of Lincoln, which has just appointed a Global Chair in Rural Health and Care. The Centre is currently hosted within Bishop Grosseteste University with which it has a research partnership. It has approaching 70 trusts in membership across England and provides the secretariat for a Parliamentary Inquiry into Rural Health and Care.

The NCRHC has identified Lincolnshire as a "Vanguard County" as a place to explore innovation. Through its relationship with East Midlands Academic Health and Science Network it is planning a programme of innovation engagement, building on the Innovation Exchange of December 2018, which will extend the opportunities for business growth and development of the estimated 2500 health and care businesses based in Greater Lincolnshire.

Innovations in delivering health and care services to ageing, rural demographics

A major opportunity for Greater Lincolnshire is to find innovative and cost-effective ways of providing quality health and care to an ageing and rural demographic. An important goal of this Local Industrial Strategy is to spur productivity gains in one of Greater Lincolnshire's largest sectors by employment. This also presents opportunities for Greater Lincolnshire to be at the forefront of the future of health and care delivery through innovations in digitisation and new forms of care provision that are specific to rural contexts.

One response is to expand the responsibilities and tasks performed in emerging health and care job roles, such as prescribing pharmacists, physician associates and nursing associates. This would help to broaden the pool of professionals available in rural settings. The growth and development of these professions provides scope to de-concentrate the distribution of highly specialised clinicians in core centres and provide more access to new professionals capable of addressing challenges faced in terms of the general health needs of the population without recourse to distance treatment centres.

A second area of focus should involve developing opportunities for entry to and personal development within professions through non-traditional routes. A number of Royal Colleges have made strides in this direction but more needs to be done. In rural areas this could unlock a considerable reservoir of skill and talent from people who don't fit the traditional entry profile for health and care. The recent publication by the National Centre for Rural Health and Care "Rural Workforce Issues in Health and Care" (2018) sets out this opportunity in more detail.

A third area should involve recognising the value of social care as a profession in terms of training, development and parity of esteem for individuals working in these settings. In rural areas this would increase the capacity and range of workers to address the additional challenges faced due to the dispersed nature of vulnerable people.

More focus should be given to embracing the concept of a whole community approach to delivering health and care. Part of this agenda will be delivered by the roll out of Primary Care Networks. On their own they will not make enough difference. Strategies for engaging the Voluntary and Community Sector more substantively in prevention and community care are also important.

Housing also plays a significant role in enabling healthy lives. Whilst housing is relatively affordable in most parts of Greater Lincolnshire, the dispersed nature of the housing stock and a limited amount of specialist housing and support services creates challenges in terms of supporting vulnerable people to live in their own homes for as long as possible. Effort needs to ramp up to ensure delivery of the right type and mix of homes required to meet identified needs; whilst care providers need to adapt business models to changing demands, developing new products and services for the growing numbers of people requiring care and support.

Actions to support the Health and Care strategic opportunity

Together, local partners will:

- Pilot 'Communities of the Future' to meet the needs of an ageing population. This will explore improved physical and digital connectivity to local services and transformation of health and care services.
- Develop Greater Lincolnshire as an international centre for innovation for rural H&C solutions, particularly through the National Centre for Rural Health and Care. This will involve partnering with the East Midlands Academic Health Science Network and the National Centre for Rural Health and Care.
- Develop a pharmaceuticals network based around the science & innovation park to look at digital health – focus on virtual care networks to address spatial inequalities in deployment.
- Address workforce challenges around skills and retention through promoting alternative career pathways and making Lincolnshire an attractive place to work.
- Align activities of LEP Employment & Skills Board with NHS Lincolnshire Workforce Action Board.
- Support actions to address the unsuitability of the current housing stock for an ageing demographic, and work to bring forward an adequate supply of housing which will enable more people to live sustainably at home for longer.
- Transform the Health & Care sector by increasing the capability and involvement of the Voluntary & Community Sector to support deployment of H&C solutions as part of a Business Development Strategy.

Working with HMG

Greater Lincolnshire wants to build on established links with HMG to develop the interventions outlined here. These will allow Greater Lincolnshire to take the lead with government on delivering the transformational change needed in the delivery of the Long Term Plan in the context Health and Care. This will directly benefit Greater Lincolnshire's productivity through reducing health inequalities and helping realise the ambition around longer and better life expectancy linked to the Ageing Society Grand Challenge in the Industrial Strategy.

Greater Lincolnshire is keen to engage with the following government departments and agencies for the Health and Care agenda part of the LIS:

- DHSC with a focus on addressing the workforce challenges (in the context of the Interim People Plan) and realising the opportunities around the digital and technology agenda set out in the Long Term Plan;
- DEFRA, with a focus on the development of a rural health and care rural proofing toolkit which could be piloted in Lincolnshire;

- BEIS, with a focus on teams responsible for Universities around the development of our innovation proposals;
- DfE, with a focus on workforce development;
- MHCLG about support for issues in relation to housing and inequalities.

Draft

Visitor Economy

Ambition: Greater Lincolnshire will grow the tourism sector yearly and promote GL as a leading tourist destination by building on recent investment, focusing on developing the UK's first LEP-wide tourism zone bid.



The sector's economic impact in 2018 was £2.39bn – a 13.4% increase since 2016. Direct expenditure in the sector was up by 6.4% in 2018 to £1.74bn. By area, the largest contributors are East Lindsey (£700m) and North East Lincolnshire (£622m). Greater Lincolnshire is a food destination with high quality restaurants and accommodation, coupled with nature and heritage assets and underpinned by an increasingly vibrant creative and cultural offer. The distinctiveness and variety of Greater Lincolnshire's visitor

economy offer creates value greater than the sum of its parts. Visitors attracted to one aspect of Greater Lincolnshire's offering, such as its coastal resorts, are likely to be attracted to other offers too once they are in the area. A successful strategy for Greater Lincolnshire's visitor economy is one which draws visitors in and then disperses them throughout the area. In addition, that strategy would create an offer which attracts higher spending visitors throughout the year and creates more added value for businesses and their supply chains.

Greater Lincolnshire has a high-quality and varied visitor economy offering across city, coast and countryside. Among other attractions, the area is home to a vibrant heritage city, 50 miles of coastline and coastal towns such as Skegness, Mablethorpe and Cleethorpes, Stamford - England's finest stone town, Rutland water and the Lincolnshire Wolds AONB. There are attractive walking and cycling routes throughout the region. Lincoln city continues to attract record number of tourists, generating over £216m for the local economy in 2018 and providing over 2,500 full time equivalent jobs. Visitor numbers grew by 6% year-on-year whilst economic impact grew by over 30% in five years.

Greater Lincolnshire has a rich and diverse heritage of international, national and local significance, dating from evidence of man's earliest inhabitation of the areas 250,000 years ago through the Stone Age, Iron Age, Roman, medieval, Georgian and Victorian Britain through to the 20th Century. The heritage is evident in historic towns, churches, monuments, airfields, windmills, canals, country houses, parks and ancient woodlands. The value of heritage and the Historic Environment 2019 captures the value, impacts and benefits of the historic environment.

Humberside Airport offers potential to attract more international visitors to the area on top of the strong domestic market which already exists. The international market tends to be made up of higher-spend visitors, meaning more added value for businesses. To attract more international visitors requires developing a cohesive, broader offer with the East Midlands, the Peak District and/or the whole Midlands region. However, for this to be effective better connectivity is required throughout the Midlands – particularly east-west rail links.

A large and growing sector where productivity gains are possible

The visitor economy supports at least 30,000 full time equivalent jobs, with many of these jobs located often in coastal towns with limited other employment prospects. This means that the visitor economy plays a substantial role in alleviating place-based inequalities and providing employment opportunities in otherwise-deprived parts of Greater Lincolnshire.

However, productivity in the sector is low, caused in part by the current 'seasonality' of the tourism offering. A priority is to promote Greater Lincolnshire as a year-round tourist destination, which would help to provide higher-quality and more reliable employment for workers in the sector and would also increase productivity. In addition, Greater Lincolnshire's residents would benefit from a joined up marketing strategy to communicate the benefits of the visitor economy and the valuable employment opportunities it holds.

There are more than 2,600 businesses in the visitor economy, which account for 6.7% of Greater Lincolnshire's business base compared to 5.8% of the East Midlands business base and 6.0% of the UK's. Many businesses are micro 'lifestyle' businesses, which may be less inclined to focus on productivity gains and often are not integrated into Greater Lincolnshire's broader visitor economy, through, for example, coordinated digital marketing. This makes it difficult to showcase to potential visitors the full range of experiences Greater Lincolnshire offers. Businesses need more support and encouragement to adopt digital tools such as booking websites and online marketing. Doing so is likely to attract more visitors to the area and make businesses in the sector more productive.

The visitor economy suffers as a result of Greater Lincolnshire's poor transport networks. It is difficult for visitors to get to Greater Lincolnshire from other parts of the country, and once there it is difficult to travel between places, particularly if relying on public transport. Improvements to the road network, plus enhancements to the quality and frequency of rail services between places in Greater Lincolnshire, will help to boost visitor numbers, increase the visitor economy's productivity and spread its benefits further through the region. The improvements proposed in this Local Industrial Strategy to Greater Lincolnshire's transport infrastructure are vital enablers of productivity growth in the visitor economy.

Building on a good track record of investment and governance

In 2017 the Greater Lincolnshire LEP established the Visitor Economy Board, which supports the sector and shapes and influences the future of the visitor economy in the area. Primary objectives include producing a comprehensive body of information about the market; producing a place marketing toolkit for visitor economy businesses; and identifying a branding hierarchy for Greater Lincolnshire.

Recent investments are helping to raise the profile and quality of the visitor economy, including a £22m investment in Lincoln Castle, development of Lincoln Cathedral, plus improvements at the International Bomber Command Centre and North Sea Observatory. A renewed focus on cultural and heritage offerings seeks to reduce the seasonality of the visitor economy, particularly in the coastal towns which experience a slowdown in visitor numbers during colder parts of the year.

The region as a whole would benefit from a joined up marketing strategy to communicate the benefits of tourism to residents. Digit

CASE STUDY

Lincoln Castle Regeneration – Enhancing Greater Lincolnshire's cultural and heritage offering

Lincoln Castle reopened in April 2015 after a £22m county-led regeneration effort backed by public and private funding to renovate this 11th century landmark. The project enabled the Castle to cement itself as Lincoln's premier visitor economy attraction.

The renovations resulted in new attractions, including the Castle Wall Walk, a high-security underground vault to house an original copy of the 1215 Magna Carta and 1217 Charter of the Forrester, and reopening the Victorian Prison.

Visitor numbers to Lincoln Castle tripled on reopening. The Castle is also a community hub, hosting year-round events ranging from theatre and fashion events to a showcase of local produce.

Delivering the Tourism Sector Deal

The new Tourism Sector deal provides an opportunity to bid for funds through the five approved Tourism Zones and sets out a clear vision on how to raise wages and productivity and address seasonality within the sector.

Tourism Zones will receive Government support for growing their local visitor economy, through initiatives like targeted support for product and promotion development, mentoring support to businesses and digital skills training. Through the Tourism Sector Deal the Government also commits to prepare Britain for an extra nine million visitors per year and to build 130,000 new hotel rooms by 2025, 75% of which will be outside London.

Actions to support the Visitor Economy strategic opportunity

Together, local partners will:

- Produce a refreshed visitor economy strategy that focuses on key assets and offers such as the Romans in Lincoln, active and sustainable tourism, and ensures that Greater Lincolnshire is one of the most accessible tourism areas in the country.
- Develop a strong bid for a tourism zone across Greater Lincolnshire.
- Develop and implement a sector skills plan and ensure that the needs of the Visitor Economy sector are reflected with the curricula.
- Up-skill frontline workers to provide a more high-end hospitality experience to visitors, and enable residents to access higher-skilled, higher-value jobs in the sector.
- Support SMEs to adopt digital technologies and platforms which will enable them to improve their productivity and attract greater numbers of visitors.
- Create a destination marketing offer linking coast, city, countryside: AONB; coast; wolds; Viking way; heritage city.
- Develop a strategy that packages and supports sustainable tourism across Greater Lincolnshire.
- Implement the Hotel Strategy for Greater Lincolnshire.

- Enhance and promote Greater Lincolnshire's place offering (e.g. through improving cultural offer) to draw in not only a greater number of visitors overall but also a greater number of high-spending visitors.

Working with HMG

- Work with DCMS to maximise the opportunities from the Tourism Sector Deal, specifically utilising the new independent Tourism Data Hub and the SME community of Greater Lincolnshire;
- Work with DFE to pilot the 2 new T levels in Cultural Heritage and Visitor Attractions, and Catering, to help deliver the industry workers of the future;
- Work with government and local partners to deliver more apprenticeships per year by 2025 and develop a pilot mentoring programme aimed at supporting employees to enhance their careers and ensure they can progress within the sector;
- Support the Governments International Business Events Action Plan to support the business events industry in attracting, growing and creating international business events to bring even greater numbers of business travellers to UK shores, and Lincolnshire.

Defence

Ambition: Create a cluster of Defence companies, and ensure Greater Lincolnshire is a highly attractive, first-choice destination for Defence-related industries, service leavers and their families

Greater Lincolnshire has a strong aviation heritage. Lincoln was one of the largest aircraft production areas in the world at its peak. Today the Defence sector is a strategically important sector for the UK, contributing to national security and economic prosperity. These high-productivity sectors provide thousands of high-wage jobs and apprenticeships and deliver sustainable growth.

The contemporary defence sector in the region is supported by a supply chain of international companies, such as Thales, Raytheon, AAR, Northrop Grumman, Lockheed Martin, Leonardo, BAE Systems, L3, QinetiQ, Inzpire and 3SDL.

Royal Air Force bases

There are 5 active RAF stations:

- RAF Scampton is home to the Red Arrows Aerobatic Team.
- RAF Waddington hosts the UK Defence's Intelligence, Surveillance, Target Acquisition & Reconnaissance (ISTAR) Force, which encompasses the Force HQ and a large proportion of its aviation assets and assigned to NATO as a lead capability.
- RAF College Cranwell provides 'ab initio' officer and other rank training for the RAF as well as basic flying training for all three of the Armed Forces. It will also host the Defence Aviation Medicine facility in due course.
- RAF Coningsby is also a very large base providing a substantial part of the RAF's air defence capability.
- RAF Digby is another active station in the area with personnel from all three armed services and the MoD Civil Service.

In addition, RAF Wittering and RAF Marham sit close to the Lincolnshire border forming a triangle containing around 40% of the RAF's assets, A4 Logistic Force Headquarters, Air and Defence Colleges (located at Lincoln College, New College Stamford and the College of West Anglia) and the only two formal aerobatic teams in the RAF: the RAF Aerobatics Team (aka the Red Arrows) and the Battle of Britain Memorial Flight.

Approximately 9,000 thousand service personnel, civil servants and contractors work at RAF bases in the area; when combined with their families, this represents a community of around 30,000 people.

Under current plans, there will be significant RAF investment in the Lincolnshire area, with several hundred additional service personnel and their dependants arriving at RAF

Cranwell, RAF Waddington and RAF Coningsby over the next five years. In addition, a number of civil service and contractor posts will be created in order to support the development of these core sites.

Advanced technical capabilities through ISTAR

The Defence, Intelligence, Surveillance, Target Acquisition & Reconnaissance (ISTAR) Force provides a significant opportunity for Greater Lincolnshire. This is a high tech, high value capability, which relies on rapidly exploiting new technologies and integrating them with information and big data to be successful. It is dependent on innovation, research and high-level skills with development funding available from Government (and through the MoD NATO) and industry.

This opportunity is based on the technology growth required by the RAF and associated defence entities to drive the development of intelligence, surveillance, target acquisition and reconnaissance (ISTAR), secure communications, data analytics and cyber (defensive & offensive) capabilities harnessing the RAF's, University's and Defence Industries' capabilities and strengths. These 3 actors are all located within Greater Lincolnshire.

The industrial base supporting ISTAR and its associated capabilities is increasing in and around Lincoln. R&D and innovation in this area will be nationally significant, high value and aligned with the region's strengths in skills and R&D.

Providing training tailored to Defence sector needs

2016 marked the opening of the Air and Defence College (A&DC) at Lincoln College providing employer-led education and technical training for 16-19 year olds. Graduates are also employed in the private sector in companies such as Anglian Water, Mercedes Benz, ITP Engineering and Minebea Engineering. Lincoln A&DC has three streams available to students with sub-streams available within them: Engineering (comprising of specialisations in Mechanical, Avionics, General, and Vehicle Engineering), Computer Science (comprising Cyberspace Communication Specialist and Avionics Technician) and Catering (comprising of Logistics Chef and Hospitality Specialist).

This new model in education has since been expanded to New College Stamford and the College of West Anglia and will in time serve as a feeder for the International Aerospace Academy being formed at RAF Syerston in Nottinghamshire, close to the Lincolnshire border. The BAE Systems Aircraft Maintenance Academy is at Humberside Airport and trains apprentices from around the world to work at air force bases.

Integrating the Defence sector into Greater Lincolnshire

Maintaining and building on strengths in Greater Lincolnshire's defence sector will help boost productivity and enhance the UK's defence sector's reputation as one of the best places in the world to innovate, do business and create jobs. There are opportunities to benefit from the strong military presence in the area and the resulting need for effective and secure digital infrastructure. This infrastructure uses significant amounts of energy and water and is potentially vulnerable to the physical effects of climate change, but defence sites are also situated close to civilian communities, creating social and economic benefits

and impacts such as the creation of jobs, access to facilities, increased noise and traffic and the presence of large numbers of military personnel in towns.

Actions to support the Defence strategic opportunity

Together, local partners will:

- Explore opportunities for a defence cluster business park and workspace units, including building on the existing embryonic cluster emerging at the Lincoln Science and Innovation Park.
- Maximise the support that is offered to RAF Leavers to develop further careers and opportunities within Lincolnshire.
- Develop a business support programme for the defence sector focused on supporting new starts, spin outs and scale ups.
- Work with the defence sector and the academic institution to improve research and innovation capabilities.

Working with HMG

- Explore opportunities with the UK Defence Solutions Centre to boost defence exports through better alignment with UK Government and collaboration within the UK value chain, as well as stimulating innovation and investment from a broad range of sources.
- Work with DIT to encourage inward investment from the MoD related to defence procurement.
- Work with the Defence Infrastructure Organisation to identify and utilise land for defence purposes.
- Further work with the MOD to ensure that the economy and supply chain is future proofed for the defence sector in Greater Lincolnshire.
- Work with the MOD as a partner to utilise land for housing and employment land.

3. Foundations of productivity

Ideas

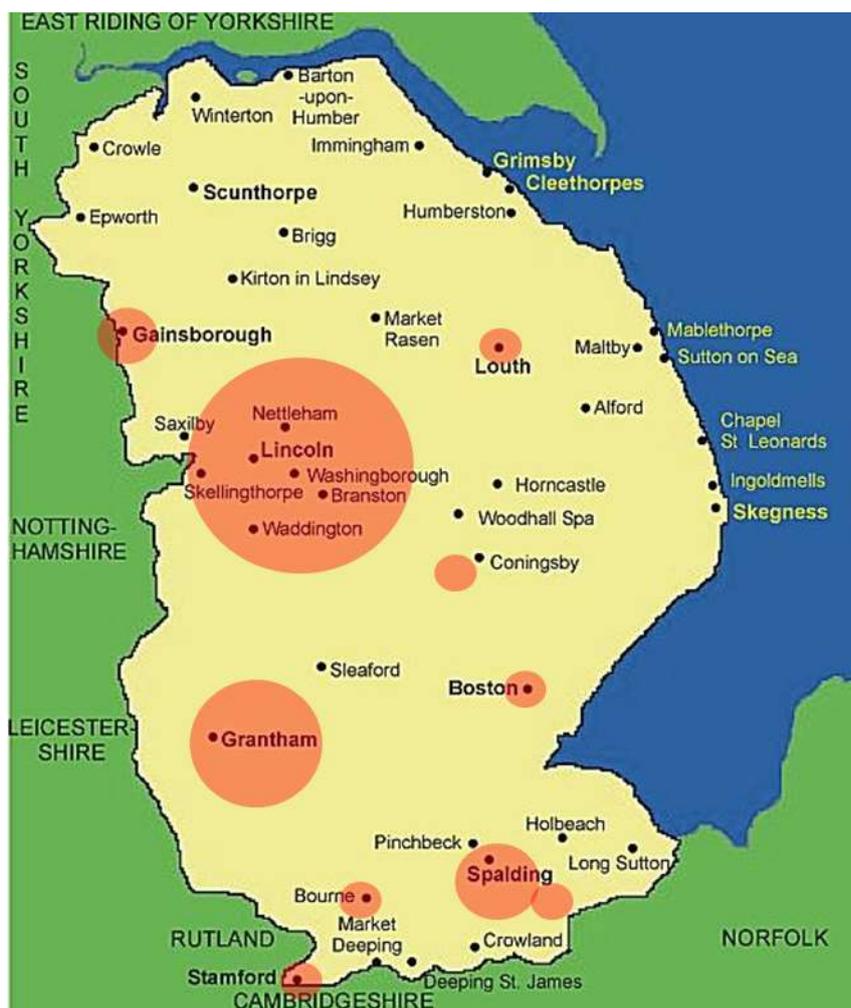
Broaden and deepen the base of innovating firms in Greater Lincolnshire, aligning innovation with strategic opportunities

To contribute to national ambitions for productivity and inclusive growth Greater Lincolnshire must achieve a transformative step-change in this critical foundation. Greater Lincolnshire's ability to innovate – and to drive impact from those innovations – is an historic strength, from Isaac Newton through the World War I tank to industrial power & energy. Greater Lincolnshire is determined to play its part in levelling-up the UK economy and to achieve this it will increase the quantity – at least trebling the level of investment to 0.6% of GVA - and spread of innovation across the whole of the region, ensuring that the economic and social value of these ideas are maximised.

Encouraging more innovative activity

Much of Greater Lincolnshire's innovation occurs in the sectors which underpin the strategic opportunities identified in this Local Industrial Strategy. While Greater Lincolnshire does enjoy pockets of innovation and a core of businesses which lead R&D in their sectors, the overall picture is one of limited innovative activity. The concentration of innovation across Greater Lincolnshire presents a polarised picture. Using Innovate UK grant applications (2014-2018) as a proxy for wider intent and investment (see map) the concentration of activity along the western and southern strips of the region is clear.

Figure 2: Innovate UK grant application location, 2014-18



While it is difficult to measure the amount of innovation occurring in an economy, metrics do suggest Greater Lincolnshire lags and differs from national averages:

- R&D spend per inhabitant in Lincolnshire is 21% of the East Midlands average and 18% of the UK average.
- Greater Lincolnshire ranked as the 3rd lowest LEP for total business expenditure on R&D.
- 79.6% of R&D expenditure per inhabitant is by businesses, which is comparable to the East Midlands (79.8%) significantly higher than the UK value of 67.1%.
- Higher Education providers account for 20.1% of R&D expenditure per inhabitant, compared to 16.6% in the East Midlands and 24.3% across the UK.
- Government Sector R&D expenditure makes up less than 1% of the total for Greater Lincolnshire, compared to 3.5% across the East Midlands and 6.5% for the UK.

CASE STUDY

SAGA Robotics – business-led R&D in agri-food

SAGA is pioneering agri-robotics technology through their autonomous, modular robot dubbed Thorvald. Their mission is to reduce risks to farmers, make farming more environmentally friendly and produce cheaper, higher quality food.

The company was founded by Norwegian University of Life Science alumnus with close collaboration from the University of Lincoln. This partnership is instrumental to their growth, winning the company valuable clientele and national recognition – including being invited to present their work at Westminster.

SAGA currently employs approximately ten employees in their R&D function and are looking to expand this to a further three employees plus further jobs in their operative arm to upscale their business.

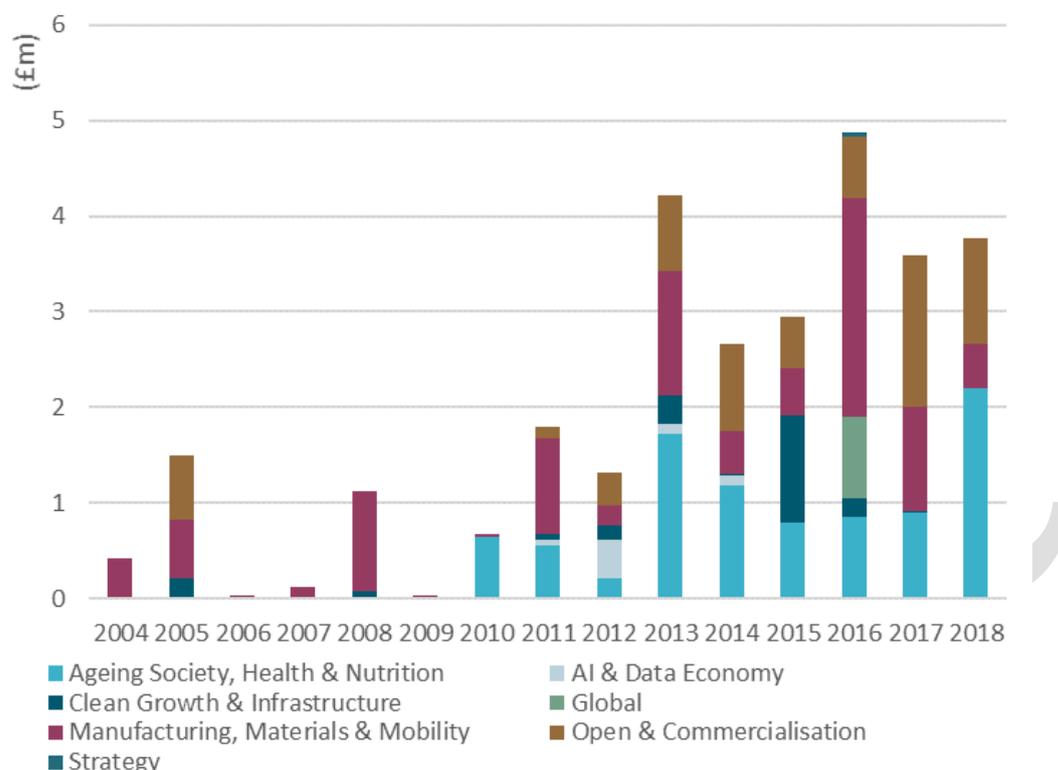
The company tests their robots at the Riseholme Campus to extend its capabilities to a wider variety of farm work. SAGA has won funding from Horizon 20/20 and five Innovate UK programme.

Commercialising innovation

More must be done to ensure Greater Lincolnshire's focused excellence in discovery translates into its application in industrial and commercial practices, and so into increased productivity. To do this, Greater Lincolnshire will focus on critical innovation strands in the sectors that underpin the strategic opportunities identified in this Local Industrial Strategy. This approach will be supplemented by efforts to raise the ambitions of Greater Lincolnshire's broader industrial base, supporting businesses of all shapes and sizes to drive innovation levels, impact and geographic spread.

Substantial progress has been made in recent years as Greater Lincolnshire's businesses and Higher Education Institutions have responded to the need to drive innovative activity. Although starting for a low base, Greater Lincolnshire Innovate UK funding allocations have increased rapidly in recent years, experiencing a five-fold increase in just eight years, from £0.75m in 2010 to almost £4m in 2018.

Figure 3: Innovate UK funding to Greater Lincolnshire by sector, 2004-18



The standout feature of Innovate UK’s funding allocation to Greater Lincolnshire is the proportion going to academic institutions (28.4% of total funding) relative to New Anglia (9.7%) and the UK (18.8%). Of this funding, most goes to the University of Lincoln (£7.8M out of £8.3M).

Greater Lincolnshire has operated a highly successful innovation support programme over the 2016-19 period, with a further three year extension now secured. This ERDF-funded scheme has achieved strong impact beyond the programme interventions and contractual outputs, in driving culture change around innovation.

CASE STUDY - University of Lincoln

By any measure Greater Lincolnshire lags the national economy in ideas and innovation. However, most statistics considered have a significant lag and don’t yet reflect more recent (post 2010) efforts, progress and impact. Central to this progress has been the establishment (2001), development and growth of the University of Lincoln. Whilst the region also includes Bishop Grosseteste University and delivery by other Higher Education providers, the University of Lincoln’s direct and indirect impact on the innovation agenda provides significant opportunities for the region to build form and crystallise.

Indicators of the University’s progress, impact and potential for future impact include:

- * Ranked in the Top 50 in the UK and one of the fastest growing in the UK, with a growing, world-class, research base
- * Opening six new STEM schools (engineering, mathematics & physics, chemistry, pharmacy, geography and life sciences) since 2011 – all based on regional industrial collaboration around skills and innovation needs
- * In partnership with the Lincolnshire Co-operative, establishing the Lincoln Science & Innovation Park which is co-locating industrial partners alongside the knowledge base allowing for greater and quicker collaboration
- * A growing undergraduate and postgraduate (14,500) student base, increasingly connected into the regional labour market
- * Securing funding (2019) to establish the world's largest agri-robotics research centre.
- * Over 120 new start businesses established and sustained in 2018
- * The Greater Lincolnshire LEP and the University share a closely aligned vision for the economic, social and culture development of the Greater Lincolnshire community, with strategic plans fully aligned and the Vice Chancellor (a founding LEP Board Director) chairing both the Growth Hub Board and the Greater Lincolnshire Innovation Council. This interconnectivity of the key innovation stakeholders in the region provides a strong forward comparative advantage.

Driving a step-change in innovation

The world around Greater Lincolnshire is changing rapidly. Greater Lincolnshire is acutely impacted by global trends, particularly demographic change, climate change and a technological revolution. These global challenges need innovative local solutions. 'Business as usual' will not do – Greater Lincolnshire needs to raise ambitions for innovation throughout the community or risk falling behind. Greater Lincolnshire's ability to thrive in the face of change depends on ideas, with innovative companies driving a productive, growing economy and solving the challenges society faces. To achieve this further intervention is required to stimulate and grow activity.

Within this context, Ideas and innovation cannot be considered independently; the connectivity between the different drivers of this foundation is critical. If Greater Lincolnshire is to create a leading innovation ecosystem then it is critical to ensure alignment between people, business environment, infrastructure and place.

Building from McKinsey & Co (April 2015) suggestions on eight essentials of innovation, the basis for Greater Lincolnshire's strategic approach to this foundation is:

1. **Inspire** – ensuring that innovation-led growth is valued and seen as critical across the community

2. **Choose** – ensuring investment in a coherent and balanced portfolio of initiatives (balancing the sector focus against wider support)
3. **Discover** – supporting the community to develop insights into opportunities that translate into impact
4. **Evolution** – supporting the existing industrial base to create new models based on their innovation
5. **Accelerate** – ensuring innovative activity outpaces global competition
6. **Scale** – supporting business to launch innovations at the right scale and in the right markets
7. **Extend** – ensuring that Greater Lincolnshire is incorporated into wider networks and best practice
8. **Mobilise** – ensuring that all assets (particularly people and infrastructure) are organised and aligned

Evidence of Greater Lincolnshire’s commitment to innovation is provided through the leading role it takes through the Midlands Engine. This includes providing leadership on the ‘Future Food Processing’ priority, linking together innovation activity across the region.

Actions to support the Ideas Foundation

Together, local partners will:

1. **Stimulate and support wider innovation activity across all of Greater Lincolnshire**
 - Continue to grow the Greater Lincolnshire Innovation Programme, focused around the ‘eight essentials of innovation’.
 - Continue to be at the forefront of the relevant grand challenges, bringing forward locally led development of new initiatives and continuing to value Greater Lincolnshire as a ‘living laboratory’ and testbed that creates solutions to regional challenges that will have global applications.
 - Ensure strong, connected, leadership between stakeholders through the Greater Lincolnshire Innovation Council, Growth Hub and LEP Board.
 - Create an innovation community with a local hub & spoke model. This will utilise and draw together existing business networks, innovation centres, groups and sectors within the region.
2. **Equip businesses and industry leaders with the skills they need to innovate successfully**

- Develop new programmes to support innovation leadership, recognising that higher level skills are often the quickest way to inject innovation into the industrial base, particularly for SMEs without an existing focus on innovation.
- Develop ‘innovation champions’ to support businesses and ensure Greater Lincolnshire speaks with one voice across the region.

3. Turn focused excellence in innovation and research into commercial opportunities

- Work with local authorities and universities to support the development of new R&D assets and expertise.
- Maximise knowledge exchange between Greater Lincolnshire’s knowledge base (recognising the significance of the University of Lincoln) and industrial partners (particularly worked to ensure an effective link with SMEs).
- Consider opportunities to drive innovation through procurement, particularly with large public sector organisations, e.g. NHS and associated trusts.
- Ensure the ‘Ideas’ and ‘Business Environment’ pillars are closely linked, for example considering the absorptive capacity challenges the micro-SME population faces.

Working with HMG

- Work to ensure innovation programme actions delivered locally are aligned with Government investment and policy;
- Support Greater Lincolnshire to become a testbed and pilot for national innovation initiatives;
- Work with HM Treasury to better understand how investment in innovation is counted, with the specific intention of improving the quality of Greater Lincolnshire’s bids for UK SPF for innovation projects;
- Work with UK Research & Innovation and with Innovate UK to explore ways of driving increasingly efficient engagement;
- Engage with BEIS and other appropriate departments around focused engagement on emerging relevant sector deals, and Made Smarter.

People

Enable all residents to reach their potential in the local labour market and participate in a flourishing and inclusive economy

Greater Lincolnshire is experiencing slightly slower population growth of 3.4% than the UK average of 3.7%. There are variations in this population growth within the dispersed economy. The highest is in Rutland, while Lincolnshire county overall has seen a 4.5% increase in the population. Positively, the area is a net attractor of people and experiences net inflows across all age groups except for those aged 20 – 34.

There are typically a higher proportion of young residents living in towns. The highest proportion of 20-34-year olds reside in Lincoln, which has a student population of around 16,000. North East Lincolnshire has seen little population growth (0.02% from 2012-17), and population decline in Grimsby and Cleethorpes. Large areas of East Lindsey have also experienced population decline (specifically along the coast).

In 2017, there were 468,500 jobs in the area, with job growth of 8.2% slightly below the UK's job growth of 9.6%. Employment is strong in sectors which tend to be labour intensive, relatively lower skilled and lower paid, and produce lower levels of value. 50% of the area's jobs are in retail and hospitality (111,600 jobs) and public services (111,500 jobs). The number of new jobs is rising far faster than the population though, and with unemployment dropping to a low rate of 3% in August 2019 there will potentially not be enough residents to meet employer demand. There was an encouraging 3% increase in the share of residents who are employed as top managers & professions from 23.2% to current levels of 26.4% in 2018, although the same period also saw the share of low skilled service workers rise by 1.2%.

The area provides many quality of life advantages for the people who live and work here (such as good schools, low crime, clean air, low cost of living) but its sheer size can cause barriers to employer-led skills training and development. The area is home to two universities, two university technical colleges and seven colleges of further education. Notable educational and skills facilities include the industry-led CATCH training facility in the north, supporting energy, engineering and renewable industries, the Joseph Banks Laboratories at the Science and Innovation Park in Lincoln, and the National Centre for Food Manufacturing in the south.

CASE STUDY

CATCH Training – a unique training facility supporting the process, energy, engineering and renewables sectors

The CATCH facility was set up via a partnership established in 1999 to support the multi-billion pound Humber Chemical sector, in a collaboration between businesses and the public sector. CATCH offers world leading facilities and works in partnership with multiple

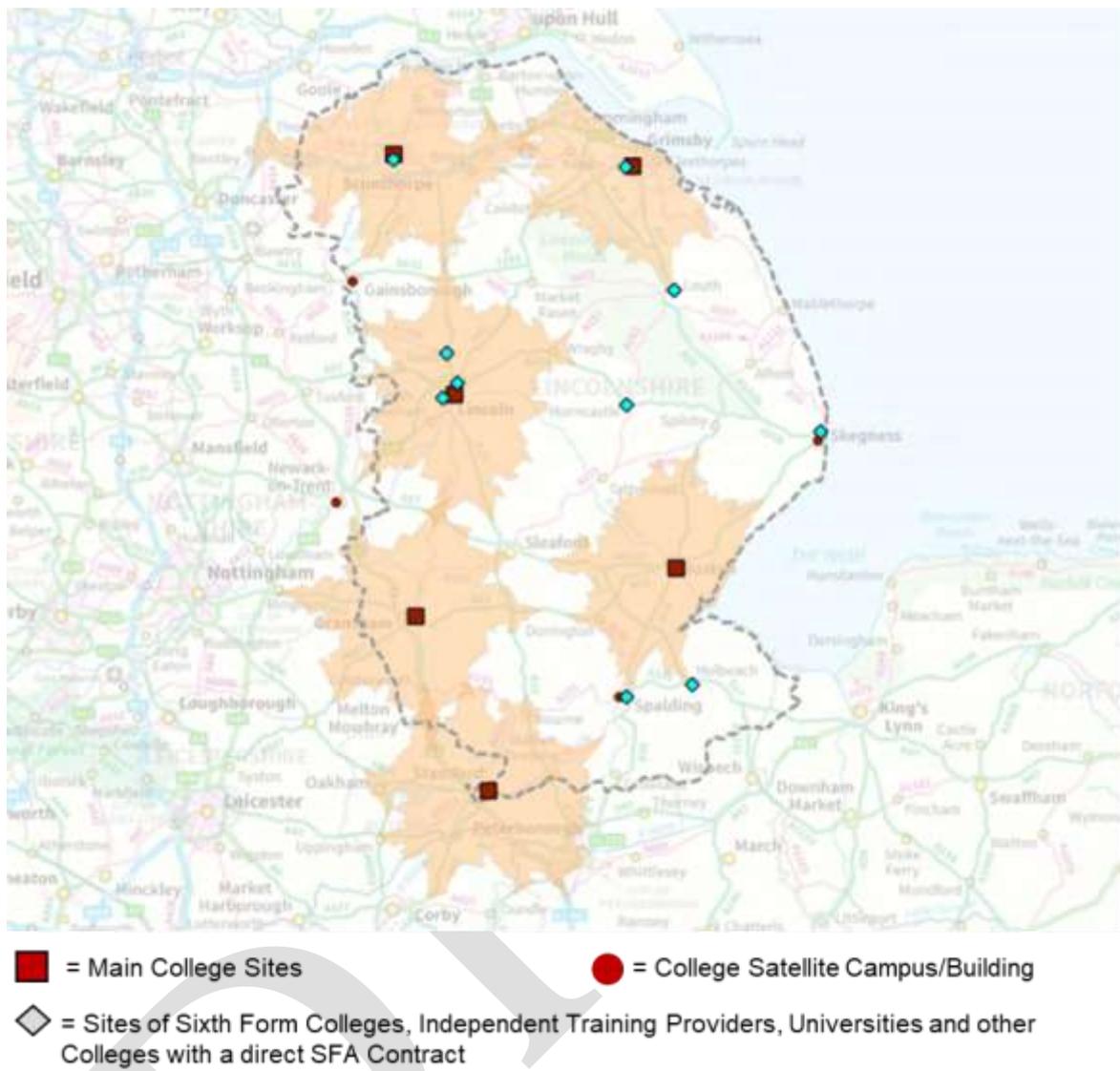
training providers including local further education colleges and private organisations who are recognised as leaders in their field – finding the solutions for businesses.

CATCH's membership is made up of partners from the process, energy and engineering sectors, their associated supply chains, and local authorities, including all four Humber local authorities. CATCH works collaboratively with the local authorities to attract inward and internal investment.

CATCH's latest expansion was completed in 2017, with new training facilities supported by a £1.75m investment through the Humber LEP's Growth Deal with Government.

Distance to these facilities can be a barrier for residents. Residents in four of Greater Lincolnshire's district / unitary authorities are able to access FE colleges via public transport in an amount of time similar to the national average, However, access in East Lindsey, Rutland, South Holland and West Lindsey is well below the national rate, because of a lack of accessible training facilities and because in large rural areas it can be difficult to achieve cohort numbers to make training economically viable.

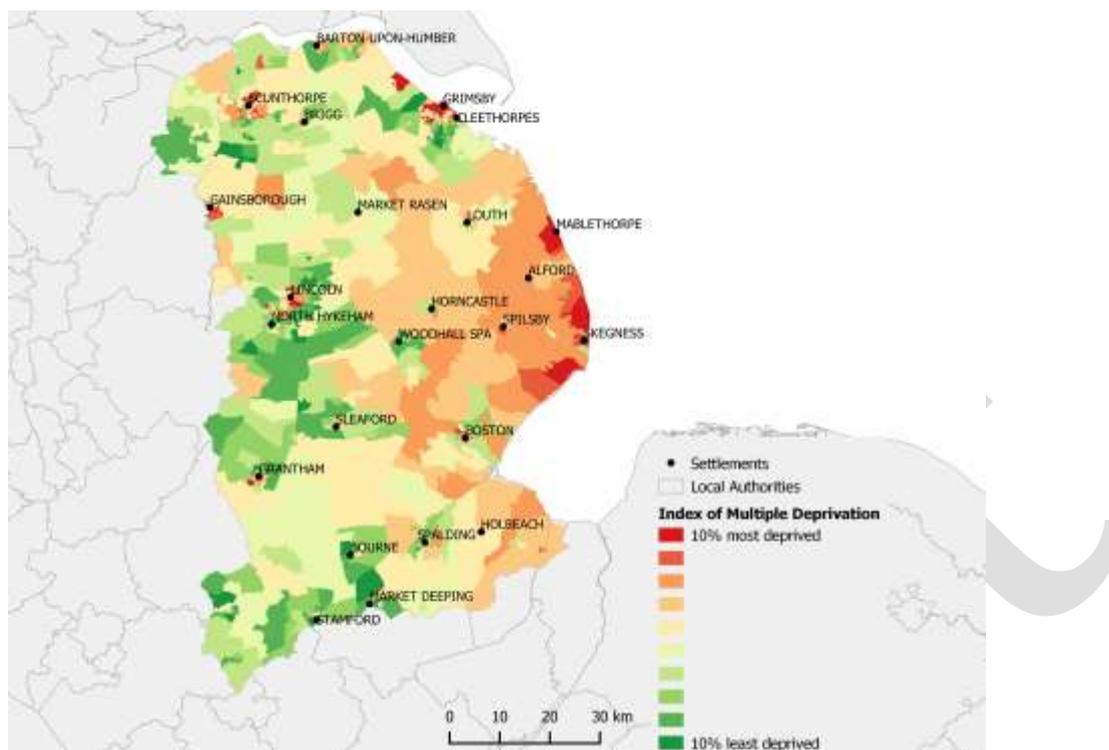
Figure 4: FE colleges within a 30-minute drive, Greater Lincolnshire



A focus on inclusive growth

Some parts of Greater Lincolnshire rank amongst the most deprived areas of England as measured by the Index of Multiple Deprivation. There are pronounced pockets of deprivation along the Eastern coastal towns from Mablethorpe to Skegness. Pockets of Lincoln and Gainsborough are also in the bottom deprivation deciles, while resort towns such as Skegness, Mablethorpe, and Grimsby are among the 10% most deprived. Slow progress on inclusive growth in these most-deprived areas is a substantial challenge which must be addressed.

Figure 5: Index of Multiple Deprivation (2015) - Deciles



Across Greater Lincolnshire 32% of employees are paid below the real living wage. Except for Rutland, the local authorities all have a higher percentage of workers earning below the real living wage than the UK (23%). This is an area of concern given that the real living wage acts as a proxy for in-work poverty, which remains a major issue for achieving inclusive growth.

Potentially this picture is starting to change. In the last year Greater Lincolnshire has seen growth in wages faster than the national average. As of 2018, the median wage for full time workers in Greater Lincolnshire was £25,720, compared to £29,574 across the UK. In North Lincolnshire this figure was as high as £28,727, whilst in Boston it was £22,414. These relatively lower wages do need to be considered alongside the higher quality of life and lower cost of living enjoyed by many, but not all, residents.

The Social Mobility Index identifies the most and the least socially mobile areas of the country by examining, in detail, the chances available to young people from poorer backgrounds in each of the 324 local authority areas in England. Based on this measure, North Kesteven is ranked 29 out of the 324 areas, which means that it is classed as a Hot Spot. Young people from disadvantaged backgrounds who live in these areas are far more likely to achieve good educational outcomes and have more opportunities to do well as adults than those in the rest of the country. Conversely, North East Lincolnshire is ranked 309th and is classed as a Cold Spot for social mobility.

CASE STUDY

Technical, Business Skills and Innovation Hub (TBISH) in North Lincolnshire – supporting Greater Lincolnshire’s industrial communities

Completed in October 2019, the Technical, Business Skills and Innovation Hub (TBISH) channels £6.7m of government and private investment to close the skills gap and support economic growth in Scunthorpe.

TBISH will provide three main services – quality apprenticeships including degree apprenticeships; short training courses; and opportunities for collaboration between the public sector, education institutes and businesses. The presence of TBISH will reposition Scunthorpe’s town centre as a hub for business and learning.

TBISH will support Scunthorpe and the wider community by delivering seamless skills progression from Levels 3-8. Addressing local skills gap will boost confidence for SMEs by providing them well-skilled labour pool and extend career opportunities for Scunthorpe residents. TBISH’s proactive engagement with local businesses will align skills provision more closely with regional priorities – particularly in manufacturing, business management and engineering.

Higher level skills are growing

Between 2008 and 2018 there was an 8% increase in the share of those with NVQ Level 4 and above from 20.5% in 2004 to 28.5% in 2018. This mirrors the decline in those with NVQ level 1 and below over the same period. Lincolnshire is home to two growing universities and it is recognised that graduate retention and nurturing this supply of talent is part of the solution for future economic growth. Across both universities the graduate retention rate is placed the area in the mid quartile nationally. Rutland has a more qualified population with the highest share of those with NVQ 4 and above (43.8%). Whilst higher level skills will be important to the future economy, replacement demand will ensure that there continues to be a large number of job vacancies for people with level 1 to 3 qualifications.

18% of the area’s schools are ranked as outstanding and GCSE results exceed the national average. Despite the proportion of school leavers obtaining a level 2 qualification being amongst the highest in England, Greater Lincolnshire has a higher than average proportion of adults with no qualifications. 27% of those over age 16 have no qualifications compared to 23% nationally. The position is improved at level 2 where 58% of the working age population have a level 2 qualification as their highest qualification compared to 51% nationally. At level 4, however, only 20% of the population are qualified to this level compared to 27% nationally.

Replacement demand and young talent

A major challenge for the area is to find suitably qualified and resilient residents to fill over 207,000 projected job vacancies by 2024. Like many areas in the UK, the population is ageing. Over 22% of Greater Lincolnshire residents are aged 65 and over compared to 18.2% in the UK. The total population is predicted to increase from 1.12m in 2019 to 1.20m

by 2041, however this increase is skewed towards population growth in the 65+ age category. Greater Lincolnshire's working age population is shrinking; upskilling and retraining of existing work force is imperative.

Retaining and retraining workers to maintain and improve productivity and to reflect the pace of technological change, Greater Lincolnshire recognises the need to support people to continue to contribute to the economy into later life through longer and more flexible careers. This includes retention, retraining and progression for local residents aged 50+, armed forces personnel returning to the workforce, and retirees who have a wealth of experience and knowledge to contribute. It also includes supporting people who have returned to work after time away. This will be increasingly important as technologies disrupt the labour market.

Apprenticeships can be one way for businesses to train and employ staff. Apprenticeship start numbers have fallen in Greater Lincolnshire since 2014/15, from just over 10,000 in 2014/15 to 7,870 in 2017/18, in part due to changes in the funding mechanism. This trend can also be seen at the national level. In 2017/18, there were 19,500 apprenticeship starts in the second quarter. This is a 31.5% decrease from 2016-17. A particular challenge is providing industry placements for learners in rural areas.

New models of skills provision are being implemented. The University of Lincoln and its Further Education college partners have been successful in their bid to host one of the country's twelve Institutes of Technology (IoT). The Institute will specialise in Agri-tech, food manufacturing, energy, digital and engineering – training Greater Lincolnshire's next generation of workers. This will be supported by £170m of capital funding from government (for all 12 IoTs). The Institute provides unique collaborations between employers and further and higher education providers, aiming to close skills gaps and improve productivity. IoT's bridge the gap between University and Sixth Form by offering level 4 and 5 qualifications in STEM subjects, for which Greater Lincolnshire has a strong business base.

Matching skills to business need

Given the legacy of lower level qualifications within the population, combined with a history of traditional industries and small businesses, employers might have become accustomed to having a small pool of high-level skills from which to recruit, and they have simply managed without. Local reports have, in the past, noted limited demand from employers, and possibly employees, to grow intermediate and higher skills because they do not recognise the need. One fact which illustrates this point is that Lincoln is the lowest paid area of the UK which contains a university.

However, the landscape has changed. Many employees are starting to retire, and business owners cannot find people to replace them. New sectors have developed, technology has changed, and automation is displacing lower skilled jobs. Developing new business leaders and managers will be important. In addition to increasing the qualification levels of the population, and inspiring young people to remain in the area, smaller businesses may need support to plan their future workforce, consider wages levels and recruit.

The Greater Lincolnshire economy is seeing rising demand for level 2 and above qualifications. Over 20% of Greater Lincolnshire's job vacancies are due to skills shortages. Machine operative vacancies account for nearly one third (29%), and labour-intensive jobs account for 35% of skills shortage. There is an over-supply of lower level and under-supply of higher level skills; 126,000 additional jobs will require NVQ Level 4 or higher by 2022 and currently not enough of the local workforce possess skills to this level. The most common reason for having a hard-to-fill vacancy is a low number of applicants with the required skills followed by low number of applicants with the right attitude and lack of qualifications the company demands.

Automation will impact the jobs market. Skills Advisory Panel analysis calculations show that over the course of the next 15 years, nearly a third of Greater Lincolnshire jobs will be impacted by IR 4.0. The sector predicted to undergo the greatest changes in terms of jobs impacted (wholesale and retail trade) is also the same sector that is projected to have the largest elements of expansion and replacement demand.

CASE STUDY

Digital Skills Centre, Stamford – enhancing digital skills delivery in Greater Lincolnshire

Opened in January 2019, the Digital Skills Centre at New College Stamford is a £1m investment of public and private funding to enhance the delivery of digital skills training and education in Greater Lincolnshire.

Through onsite or flexible and distance learning options, the Digital Skills Centre will deliver industry recognised certifications (awarded by CISCO and Microsoft) from its refurbished and upgraded computer learning facilities. The Centre also supports new technology developments such as cyber security; cloud computing; mobile technologies; and green IT.

The Digital Skills Centre will support all sectors and businesses – particularly strategic opportunity areas such as agrifood and clean energy – to adapt to emerging technologies such as data centric decision making and automation. The Centre's four ambitions by 2022 are to create a digital skills hub in Stamford; double the number of learners accessing high quality education; deliver 10 additional qualifications; and work with at least 150 new employers.

Providing employment support when it is required

Of those who are out of work, there are health barriers to employment for some residents – over one third of workers in North and North East Lincolnshire are economically inactive due to illness. And the overall figure masks large differences at local level - unemployment in Gainsborough South-West ward is as high as 11.3%.

[Hold for additional content – focus should be on encouraging and enabling people to participate in employment]

CASE STUDY

Bishop Grosseteste University – supporting people into learning and employment

With a long and rich history, Bishop Grosseteste University is renowned for its initial teacher education and training, as well as offering undergraduate and postgraduate study in a broad range of other subjects. The university supports people into education and employment through a variety of programmes and interventions.

The university hosts the National Collaborative Outreach Programme, LiNCHigher, which is a consortium of HE and FE providers throughout Lincolnshire which aims to raise the aspiration for post-compulsory education amongst those typically under-represented.

Bishop Grosseteste University is working in collaboration with the University of Lincoln to embed High Level/ Professional skills through a partnership between the universities, employers and local authorities. Through the generation of 30 business challenges, the project will offer 130 students a unique opportunity to work in multi-disciplinary teams and pitch their solutions to medium to large businesses across Greater Lincolnshire.

The university's careers and employability arm, BG Futures, delivers the European Social Fund and Big Lottery funded MOVE project which works with adults in the community to help them get into learning and / or employment. The project completed its third year and achieved an extension to July 2022. The new programme is targeted with supporting 22 participants into work, learning and job search. BG Futures staff have been working one to one with participants who are long term unemployed or who are economically inactive to help them identify goals and barriers, and then support them to put remedies and plans into action.

Actions to support the People Foundation

Together, local partners will:

1. Continue efforts to equip the workforce with high-quality, relevant training

- Successfully launch the new Institute of Technology.
- Develop a digital skills plan for Greater Lincolnshire.
- Promote to businesses the new National Retraining Scheme for adults when it is rolled out across England in 2020

- Develop programmes that support small business owners and the self-employed to retrain or upskill
- Develop local labour market information

2. Develop a programme to support residents to participate in the workforce

- Develop and implement the Lincslife campaign to support residents to participate in the workforce.
- [Hold for interventions focused on health as an enabling factor for employment]
- Ensure that adults are not digitally excluded by working with Government to develop Digital Partnerships in market towns.
- Identify gaps in learning provision across the area and develop a network of learning hubs to fill the gaps.
- Pilot a programme to attract RAF leavers into forms of employment.
- Work with schools to help inspire young people about businesses and careers.

3. Partner with businesses to help them adapt and compete

- Continue to develop links between businesses and schools through the Enterprise Adviser Network and our 'Give an Hour' campaign.
- Champion T-Levels locally so that they map to the strategic opportunity areas and support local employers to deliver industry placements.
- Develop a skills capital programme that reflects Greater Lincolnshire's strategic priorities and the needs of business.
- Develop programmes to support SMEs with recruitment and workforce development.

Working with HMG

- Work with Government to maximise the effectiveness of the Apprenticeship Levy and T Levels
- Work with government to deliver the Lincolnshire IoT
- Work with government to enhance engagement between business and schools
- Work with government to develop a digital strategy and a programme of digital skills partnerships across Greater Lincolnshire
- Work with government to deliver a model of skills for rural areas.

CASE STUDY

Bishop Burton College's Riseholme Campus – promoting innovation in agri-food

Completed in November 2016, Riseholme College's Showground Campus, 2 miles north of Lincoln city is a £24m investment that strengthens Greater Lincolnshire's position as an agrifood leader in innovation and excellence in food production.

The Showground Campus has three education centres which provide three critical services – state-of-the-art food processing facilities and laboratories; a platform for technology transfers; and local community engagement through sports and fitness facilities.

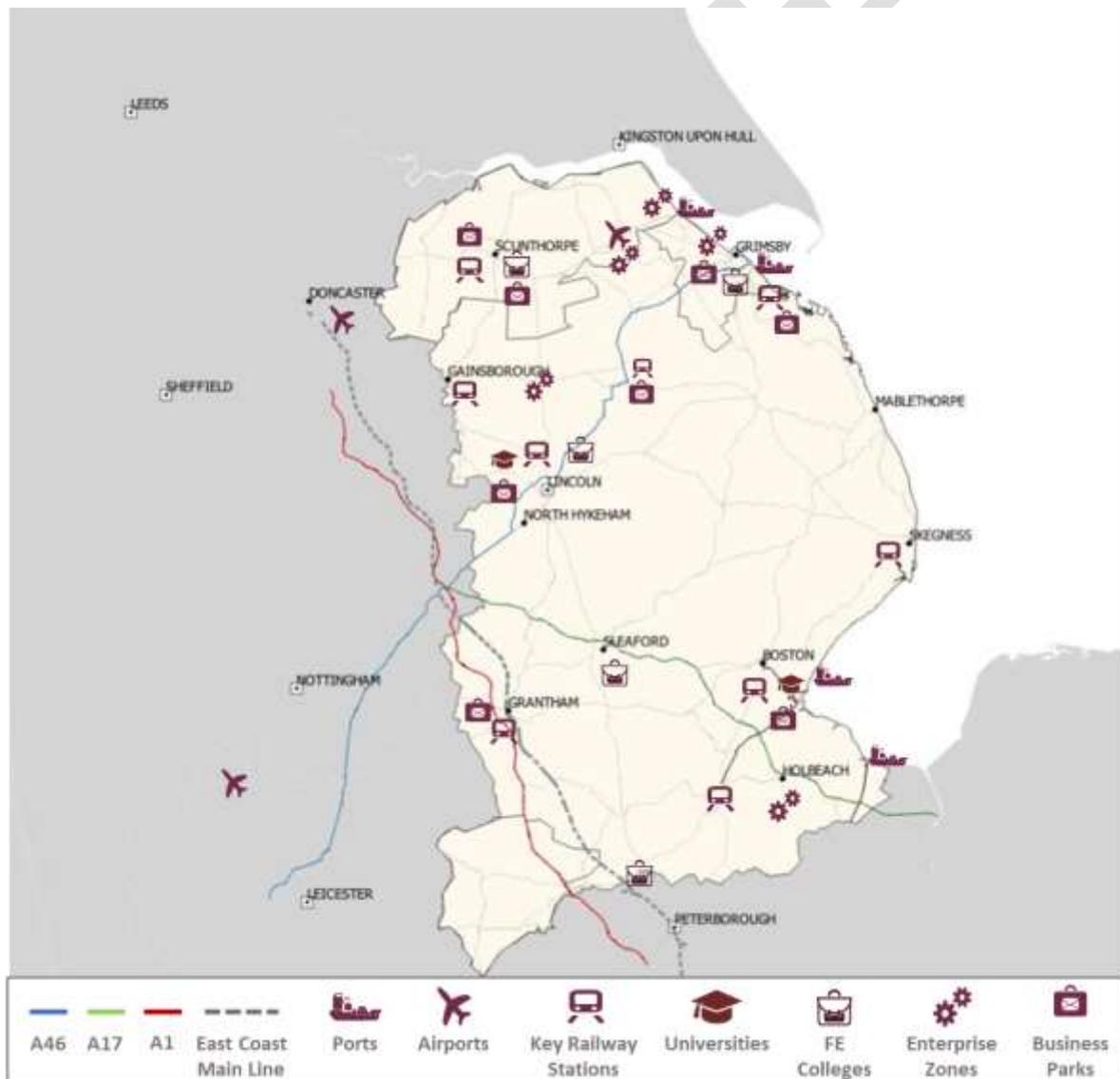
Riseholme College is a focal point for the rural community, hosting public and private sector activities. It has supported over 100 businesses, resulting in a nationally renowned, employer-led Farm Management Development programme developing young agriculturalists to become industry leaders. The college supports over 600 learners per year including Further Education students, apprentices and Higher Education undergraduates.

Infrastructure

Ensure Greater Lincolnshire has the infrastructure it needs to support businesses, connect people, and be prepared for future growth and challenges.

Greater Lincolnshire’s infrastructure requires renewed investment and a strategic approach to overcome three main challenges: providing essential infrastructure in a large, rural area with a dispersed population; increasing connectivity with the rest of the country and the world; and future-proofing the region against significant future changes including climate change, the future of mobility, and digitisation.

Figure 6: Strategic infrastructure assets



*Connecting Greater Lincolnshire’s dispersed people and places
Greater Lincolnshire is reliant on a large but limited road network*

Greater Lincolnshire is poorly connected by internal roads. The road network totals some 11,000km yet includes only 38km of motorway (the M180 and M181), which provides good road access to the northern parts of the area (North and North East Lincolnshire), linking to the M18 and onwards to the M62, A1(M) and M1. There are 1,374 km of A roads but of this just 129 kms (9.4%) are dual carriageway, including the A180 and parts of the A46. Most of the major road network is made up of single carriageway roads, with 9,600km of the network comprising 'B' class roads and below.

Roads help connect residents with jobs, and poor transport networks inhibit residents from accessing jobs which traps them in a low wage, low skill environment. Improving road connections is therefore essential to deliver an increase in average pay levels and overall rise in GVA levels.

Poor road connectivity creates challenges for Greater Lincolnshire's industries. Employer surveys in 2014 showed that 30% of businesses in Greater Lincolnshire stated that poor transport infrastructure was a factor preventing the business from growing, while 12% stated that poor transport infrastructure was the single biggest barrier to growth, more than any other single category, and a key reason why they do not invest in their own sites and businesses.

The A46 is an important east-west route, but it does not cover the south, and so distribution links in the area are particularly difficult. Agrifood businesses operating in the area face high transport costs to reach priority national markets to the south. Rising demand for road travel is placing extra stress on the core highway network. This results in increasing delays and congestion.

More investment is required in the local rail network

Greater Lincolnshire's rail network provides services that connect the area's sparsely populated places with a small number of larger centres, and link Greater Lincolnshire with the rest of the country. A Rail Study carried out in 2016 for the LEP indicated that the wider economic benefits delivered by the rail services in the area are worth around £161m per annum. Improvements to rail can therefore play an important role in strengthening the economy across Greater Lincolnshire, supporting business, tourism and labour markets. However, there is a need for further investment to fulfil its potential.

The improvements needed to services within Greater Lincolnshire are often comparatively minor and may in fact be easier to deliver than some of the more strategic services. Merely bringing existing services up to a level that Network Rail would define as a 'good' standard nationally could bring about a £34 million increase in GDP per year. Improving them to the standard of the best equivalent services in the UK could be worth anywhere between £84m and £167million in extra GDP per year.

There are opportunities to experiment with new public transport methods suitable for rural areas

In Greater Lincolnshire it can be difficult to provide cost-effective public transport across such a large area with a dispersed population, and the market for public transport is relatively small. Bus usage is declining. In 2017/18 Lincolnshire bus operators provided 13.5 million passenger journeys compared to 13.7m in the previous year. Strong public transport infrastructure must be prioritised to deliver inclusive growth and reduce congestion.

Changing this will require innovative responses. In North Lincolnshire, Lincolnshire and to an extent in North East Lincolnshire policy decisions have recast the network as a hub and spoke model of demand-responsive services. The system is designed to provide maximum flexibility against a constrained budget. Artificial intelligence and machine learning will create new forms of mobility as a service. There is an opportunity to look at Future of Mobility Grand Challenge in a rural context and the University of Lincoln are collaborating with Midlands Connect to raise the national profile of the issue.

CASE STUDY

Lincoln Transport Hub – integrated transport solution for Lincoln city centre

Opened in January 2018, the Lincoln Transport Hub is the result of £29m of public and private funding to deliver a decades-awaited integrated transport hub in Lincoln City Centre. The ambitious, mixed-use project was delivered collaboratively in a public-private partnership and took 16 months to complete.

The project was built on a brownfields site in the centre of Lincoln. It comprised a new fit-for-purpose bus station adjacent to the improved train station; public realm improvements; parking space for 200 bicycles and 1,000 cars; 325m² of retail and traffic calming measures to support pedestrians and cyclists.

The development is revitalising Lincoln city centre, benefiting residents and visitors by making the city centre more accessible via all modes of transport. The project has already secured additional private investments in adjacent areas, building momentum for more jobs in the city centre. The Transport Hub will facilitate future investment by unlocking brownfield land, enhancing Greater Lincolnshire's place offer.

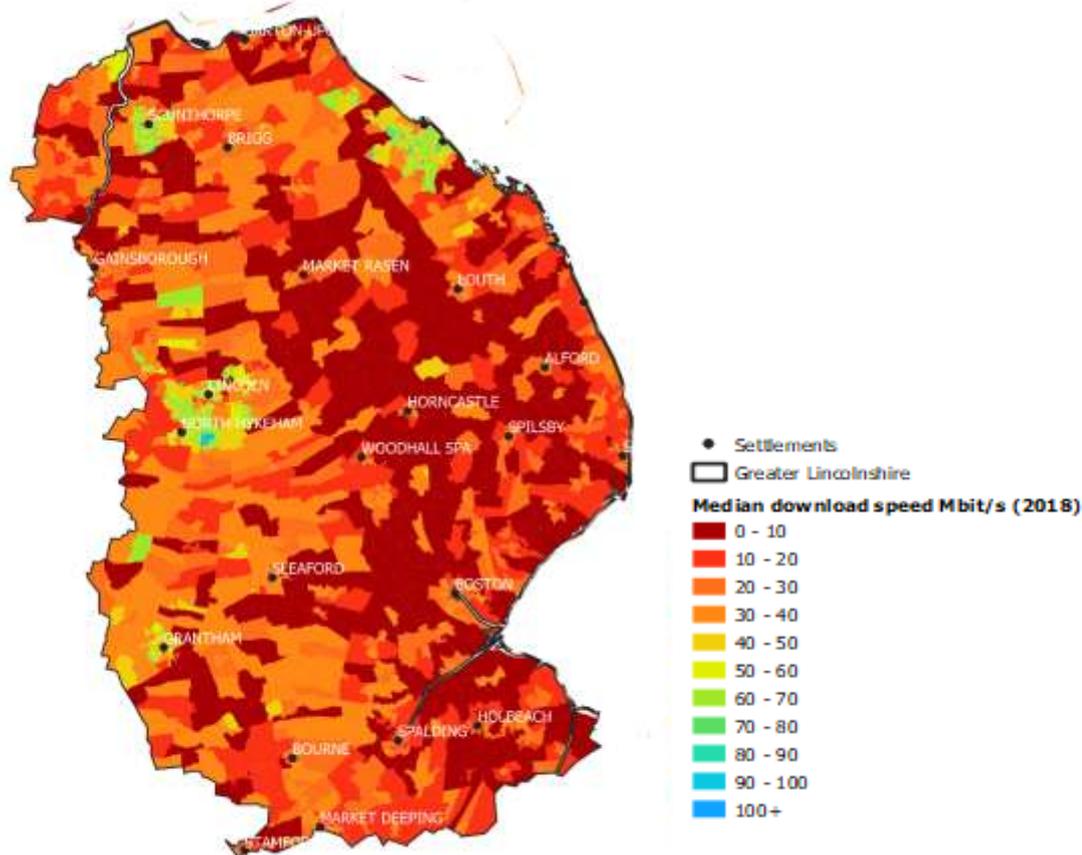
Connecting people and businesses online

The map below shows the median broadband speed across Greater Lincolnshire (Mbit/s). The distribution of good broadband connectivity is poor, particularly in coastal regions. Current levels of both fixed line broadband and mobile connectivity remain well below national averages. Superfast broadband coverage⁸ currently sits at 92.1% against a UK

⁸ Defined as download speeds in excess of 30Mb/s

average of 95.9%. The gap increases further when considering Ultrafast broadband⁹ where current coverage in Lincolnshire county sits at 27.7% against a UK figure of 58.1%¹⁰.

Figure 7: Median download speeds (2018)



Large pockets of the east have access to slower broadband speeds, mainly concentrated in the area between Woodhall Spa, Sleaford and Boston. Many smaller towns have access to superfast broadband, but the median speeds are at the lower end of the scale (30Mbit/s). This is suitable for domestic use but does not provide businesses with the connectivity they need. Larger towns have better connections - areas within Lincoln, Grimsby, Scunthorpe and Grantham have median speeds in excess of 100Mbit/s.

The need for Ultrafast broadband is increasing as industry and business in general move to greater use of online and real-time applications. Areas of the rapidly expanding agrifood industry, for instance, would already use at least symmetrical gigabit connectivity¹¹ in their operations if it were available, but it is not.

Rural mobile coverage has grown significantly to 90% coverage yet there are still too many people without access to this essential part of modern life. Access to 4G mobile coverage varies by location, with some coastal places, smaller towns and rural areas receiving

⁹ Defined as download speeds in excess of 100Mb/s
¹⁰ All figures are taken from 'Thinkbroadband' data
¹¹ Defined as download and upload speeds in excess of 1Gb/s

sporadic coverage or none at all. These places include the Wolds, areas on the East coast and the coastal areas around Boston. On that basis, it is recognised that a stable 4G signal to these more remote areas will improve both mobile and broadband coverage.

Increasing connectivity with the rest of the country and the world

Limited rail infrastructure inhibits national connections for people and freight

Direct trains from Lincoln to London on LNER start in 2019, with local partners developing areas around the station to capitalise on the investment. Longer term line speed improvements between Lincoln and Newark are a priority, as is the introduction of an extension to this to create a direct Cleethorpes to London service. The difficulty of crossing the East Coast Main Line has impeded developing better east – west links, with the City of Lincoln particularly affected by the East Coast Main Line crossing at Newark. An interchange at Nottingham or Sheffield is required for east – west trips, leaving the city isolated from others in the East and West Midlands and Yorkshire.

The importance of the Lincoln-Nottingham rail corridor is recognised by its inclusion in Midlands Connect's recently published 'Midlands Engine Rail' initiative. The aim is to deliver a step-change in rail connectivity which will support jobs growth and housing development across the Midlands region. Specific to the Lincoln-Nottingham corridor is the aspiration to deliver 2 trains per hour (currently 1 train per hour) and line speed improvements.

The rail network, especially in Northern Lincolnshire, plays an important role in the UK rail freight network. Much of the area has benefitted from major investment in infrastructure to improve services such as the recent upgrade to the Great Northern and Great Eastern (GN/GE) Joint Line and improved W12 freight gauge access to the Port of Immingham from the East Coast Main Line. The existing line which links Grimsby to Immingham docks, and runs alongside North East Lincolnshire development sites and Enterprise Zones would, if upgraded, enhance infrastructure links and attract investment onto these sites. Aside from the port-related freight, there is limited rail freight traffic originating elsewhere in the Greater Lincolnshire area. One exception to this is the approximately weekly flow of imported steel that goes from Boston Docks to Washwood Heath (Birmingham).

Connecting to the national road network

Highways England's Assets in Greater Lincolnshire are the M18, the M180 and the A1. The section of the A1 between Peterborough and Blyth needs further improvement to improve safety and to prepare it to meet growing future demand as outlined in the spatial plan for Greater Lincolnshire. Longer term priorities for road investment across Greater Lincolnshire are the North Hykeham Relief road around Lincoln, A46 Trade corridor, upgrading the A1 to smart motorway standard, and enhancement on other strategic routes such as the A15 and the A17.

Airports

Humberside Airport is to the west of Grimsby in North Lincolnshire, and includes an Enterprise Zone with a business park. It provides passenger connections to destinations in the UK and Europe and also offers freight services for business. Two other airports service the broader region – the East Midlands Airport and Doncaster Sheffield Airport.

Draft

Maximising the strategic advantage of Greater Lincolnshire's Ports

The Government's Maritime 2050 strategy recognises that the UK economy is highly dependent on the maritime sector, with 95% of goods exports and imports moved by sea, including nearly half of the country's food supplies and a quarter of its energy supply. The UK's continued success as a global trading nation is dependent on its ability to import and export goods efficiently, and the Humber and Greater Lincolnshire play a vital role in supporting this.

Greater Lincolnshire has many ports, along the coast and further inland on the Humber Estuary, the River Trent and the River Nene. Major ports include Immingham and Grimsby, Boston, New Holland, and Sutton Bridge. Of these, the Ports of Immingham and Grimsby are the largest. 75% of all UK manufacturing and 40 million UK consumers are within a 4-hour drive of the Humber ports, which are strategically important to both the Northern Powerhouse and the Midlands Engine, forming their largest eastern gateway to international markets. The port of Immingham is the UK's largest port by tonnage, handling 46m tonnes of cargo every year, most of which are shipments of bulk products. 12% of all UK cargo is handled in North East Lincolnshire, and Greater Lincolnshire's ports originate over 25% of the UK's rail freight.

In 2013 Immingham handled 68,000 container units; by 2017 this had increased to 183,000 units as cargoes originally destined for southern ports moved north. A 2018 £36m investment in Immingham's container terminal is expected to support a 50% growth in volume by 2020. The ports are integral to Greater Lincolnshire's logistics industry, which employed 25,000 people in the Humber in 2017 – an increase of nearly 50% since 2009. The ports are also important assets for other industries which have grown around them, such as energy (in particular offshore wind), petrochemical refineries, water transport services and warehousing.

Despite growth in the sector there are still productivity challenges to face, with sector productivity levels in the Humber (£74k GVA per FTE) behind the wider Yorkshire and Humber region (£82k per FTE) and England (£111k GVA per FTE).

The Ports of Grimsby and Immingham are in discussions with Government to explore the possibility of becoming classified as 'Free Ports', which are areas inside the UK geographically but legally outside of UK customs territory. They are typically tax free or low tax areas designed to encourage more trade: raw materials can be imported to the free port and value-added or finished goods can be exported without tax being applied. The intention is to attract new investment, boost manufacturing and increase exports, ultimately creating new jobs in the process.

Future-proofing Greater Lincolnshire against future challenges

Flood defence and water management

Greater Lincolnshire's topography places 30,000 homes and 45% of its land mass at risk from flooding. Much of this land mass is in the coastal areas and along the LEP's western border, which follows the River Trent. Its strongest economic performers - the agrifood, tourism, and manufacturing sectors - are highly dependent upon water, yet this is also one of Britain's driest areas.

Greater Lincolnshire's LEP's strategy to water management is to develop an integrated approach which will maximise the services water provides, including drinking water, input for business, crop irrigation, tourism and recreation, and improved biodiversity. This approach recognises that water management priorities vary across places, with, for example, coastal areas focusing on flood mitigation while agricultural areas focus on the provision of clean water and land drainage. This strategy is set out within the Greater Lincolnshire Water Management Plan.

Seven different flood defence projects are listed in Greater Lincolnshire's Strategic Infrastructure Delivery Plan, with these projects ranging in location from North Lincolnshire to Boston, with a combined capital cost in excess of £160m.¹²

An energy strategy for the future

Greater Lincolnshire's Energy Strategy set outs the key drivers and investment opportunities for Energy. Greater Lincolnshire sits within the BEIS Midlands Energy Hub. There are specific challenges across Greater Lincolnshire due to the dispersed geography, isolated rural areas, existing energy infrastructure and high costs and delays in implementation that are a barrier to growth now and in the future. The Energy Strategy has four ambitions:

1. To secure low cost and low carbon energy solution
2. To boost capacity in strategic residential and commercial sites
3. To develop elements of a sustainable transport system
4. To strengthen local energy production

The Better Utilities Study in 2017 examined the utilities constraints for 25 commercial and housing sites, and concluded that the abnormal reinforcement costs to bring the sites forward to market were £125 million. There is a mismatch between real growth and planned growth and the delivery plans for Distribution Network Operators (DNOs) which acts as a break to economic growth in some areas of Greater Lincolnshire.

Conversely, Greater Lincolnshire is home to some of the UK's most vital energy assets, with the Humber estuary developing one of the world's leading hubs for Clean Energy. The decommissioned Gas Terminal at Theddlethorpe on the Lincolnshire Coast offers significant

¹² Greater Lincolnshire Strategic Infrastructure Delivery Plan, 2019.

opportunity for future energy supply. The south bank and the supply chain in Lincolnshire has a vital role to play as the offshore wind industry scales up to deliver the sector deal, and more sustainable new jobs and business opportunities.

Preparing for 5G

The Midlands Engine has made digital connectivity a part of its ambition to make the West Midlands an Ultra-Connected Region, and 5G connectivity is a part of this. The Midlands Engine notes that implementing 5G networks across the region will facilitate advancements in remote monitoring and servicing in the manufacturing and health sectors, plus the use of autonomous vehicles and improved mobile connectivity. At this point, none of the four network operators have advanced plans to deploy 5G into the area. However, recent moves to establish part of the West Midlands as a 5G multi-city test bed area will present opportunities for Greater Lincolnshire to capitalise on strong digital infrastructure in the region.

Planning for Growth

Picture to be added by GLLEP - an updated version of spatial strategy

The headline aims of the area's first Strategic Infrastructure Delivery Plan are to increase the value of the Greater Lincolnshire economy by over £3.2 billion (to 2030), creating more than 29,000 new jobs, and delivering 100,000 new homes. Central to achieving these aims are infrastructure propositions which align with the priorities of this Local Industrial Strategy. Specifically, the Planning for Growth document sets as objectives for infrastructure that by 2050 Greater Lincolnshire's partners will have delivered:

1. Improvement of the strategic road network and improvement of rail services and connections
2. Improvement of Broadband and digital communications for all communities
3. Creation of a resilient area providing coastal protection, sustainable water and energy supply and food security
4. Delivery of a resilient utilities plan – supporting growth and the prospering economy.

Actions to support the Infrastructure Foundation

Together, local partners will:

- 1. Develop and publish a Greater Lincolnshire Strategic Infrastructure Delivery Plan by early 2020**
- 2. Improve inter- and intra- regional transport connectivity**
 - Seek funding to deliver the Greater Lincolnshire rail strategy to improve east-west connectivity for freight and passengers, linking into the East Midlands and Yorkshire and onwards to the North West.

- Seek funding to invest in key transport corridors in Greater Lincolnshire in line with the Greater Lincolnshire Strategic Infrastructure Delivery Plan, removing pinch points and increasing network capacity and resilience.
 - Work with partners to build the economic case to extend direct rail services to from London to Northern Lincolnshire and North East Lincolnshire.
 - Support Midlands Connect with the development of the outline business case and feasibility study for the line speed improvements between Lincoln and Newark.
 - Continue to develop relationships with Midlands Connect to contribute to the creation and implementation of an integrated transport strategy for the Midlands region.
 - Work in partnership with Transport for the North and NP11 LEPs to explore options for improved trans-Pennine freight links, particularly by rail and water, and supporting more of the UK's future international trade through the Northern Powerhouse ports.
 - Work with local partners and the Midlands Engine to develop a Strategic Business Case for the A46 trade corridor, and support neighbouring LEP D2N2 and Highways England to upgrade to the A46 around Newark by 2025.
 - Work with Highways England and Midlands Connect to upgrade the A1 in Lincolnshire to accommodate anticipated growth.
- 3. Provide businesses with the digital infrastructure they require to grow and innovate**
- Fixed line broadband – continue working with Government to meet the target of 100% coverage of Superfast Broadband as a first stage by the end of 2021, and progression towards ultrafast broadband in key strategic locations by 2025.
 - Digital business engagement – explore new ways of stimulating SME investment in digital technology.
- 4. Ensure water is managed effectively as a strategic asset, an industrial input and as part of the area's natural capital**
- Continue to progress Greater Lincolnshire's 2016 Water Management Plan, which incorporates key strategic flood risk management issues and develops an approach to linking effective water management with economic growth and environmental enhancements.
 - Develop a more strategic approach to development and land use planning, including a responsive approach to developers to help them understand the water management requirements of potential investments.

Working with HMG

- Road: Work with Government to incorporate the LIS as a major component of the evidence base supporting road investment strategies.
- Road: Work with Government to establish a new Benefit Cost Ratio mechanism so that the benefits of investing in more rural areas are better reflected in the criteria.
- Rail: Establish an agreement with Government to jointly shape Network Rail and DfT's provision for rail in Greater Lincolnshire.
- Digital: Government support for the 5G rural pilot bid that Greater Lincolnshire intends to make.
- Energy: work with Government and the BEIS Energy Hub across the Midlands to develop local energy models.
- Energy; work with government and the Midlands Engine to secure future investment into the Theddlethorpe Gas Terminal.
- Public transport: Work with DfT to explore areas of legislation which are limiting innovation in public transport. Greater Lincolnshire wants to work with DfT to build a proposal based on innovation that shows a greater awareness of the challenges affecting public transport operators whilst still meeting the objectives of access legislation
- Flood defence: continue work with the Environment Agency to develop infrastructure which manages flood and water management through the Joint Lincolnshire Flood Risk and Water Management Strategy.
- Mobile coverage: seek government support to provide a stable 4G network to the remaining 10% of areas across Greater Lincolnshire.
- Mobile coverage: seek Government support to prepare a bid to the recently announced 5G pilot programme.

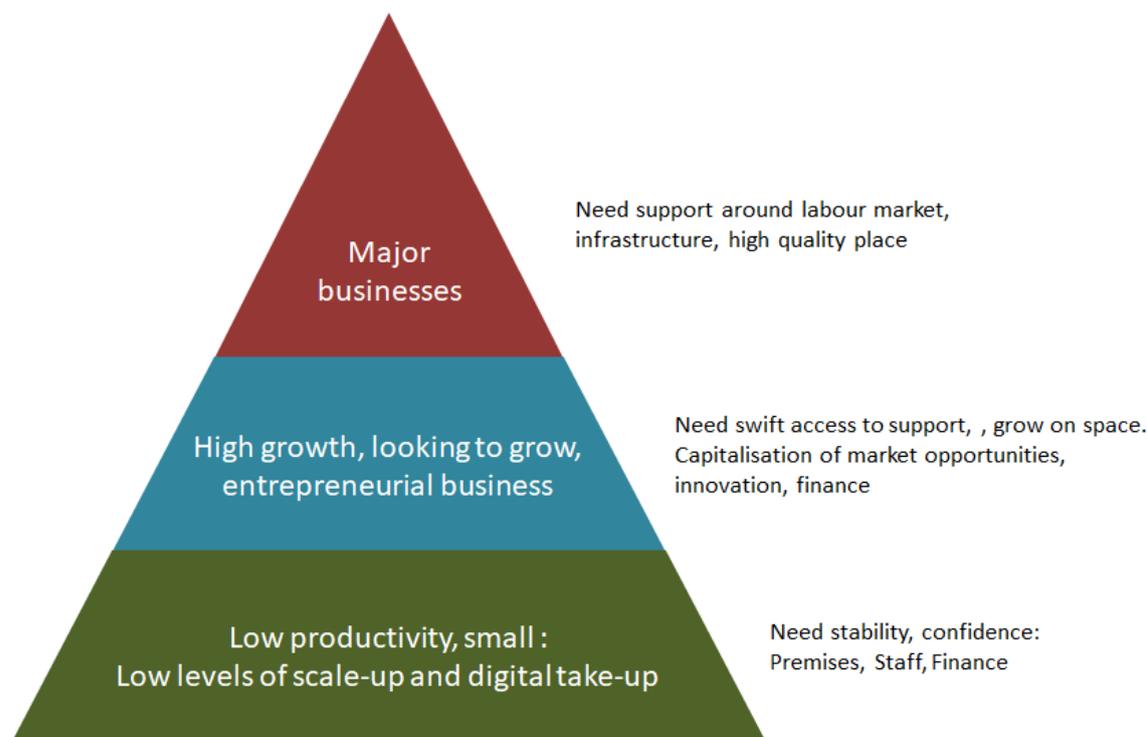
Business environment

Create a supportive business environment for entrepreneurs, micros and SMEs to grow and become more productive and resilient.

SMEs make up the majority of businesses in Greater Lincolnshire in comparison to the national picture and that of other regions, with 64% of employment in micro-enterprises and SMEs. Among all LEP areas, this is the third highest proportion of employment in micro and SME-sized businesses. The business base consists of 39,650 VAT registered businesses – 88% of these are micro and this is complemented by a large number of small businesses that are not VAT registered. In more rural places – such as in parts of West Lindsey - micro businesses account for up to 98% of the business base.

This is a broad and diverse business base, however three sectors account for over half of GVA and employment share (manufacturing, retail and hospitality, public services). Manufacturing comes through in the evidence as a diverse, strong sector, accounting for 20% of GVA. But all these sectors are less productive than the national average. Public Services and retail and hospitality are also less productive than the East Midlands average.

A reduction in the number of major businesses operating in the area may have negative flow on effects on the rest of the business base which are part of their supply chains. The focus will therefore be in part on business resilience alongside productive growth.



Prioritising business start-ups and growth

There are currently 358 VAT registered businesses per 10,000 population. This falls below the UK level of 404 VAT registered businesses per 10,000 people. The region sees positive

business growth rates and fair business survival rates particularly in strategic opportunity areas, however, there was an overall negative net business birth rate (-1.17%) across the area in 2017 compared to positive growth at UK level (+1.9%). Although the contracting business environment is being felt throughout Greater Lincolnshire, in 2017 it was most pronounced in Lincolnshire, where there were 275 fewer businesses in 2017 than 2016, and North East Lincolnshire, where there were 160 fewer businesses in 2017 than 2016. Lower than expected levels of new business start-ups potentially means less opportunity for scale ups and frontier firms and to expand the business base more generally.

Engaging the global economy

The area has benefited from various public and private sector investments in recent years, with anchor institutions playing a major role. Siemens, Northrup Gunman, and the University of Lincoln have all invested in new facilities in the area and, under current plans, there will be significant RAF investment in the Lincolnshire area. Nascent plans for a Free Port in Greater Lincolnshire could allow for an attractive proposition for inward investors. With a good supply of affordable land there is an opportunity to increase investment coming into the region and maximise the local impact of existing investment. To encourage businesses into the area Greater Lincolnshire LEP provides a business toolkit which helps with set-up and relocation plus initiatives and advice to fast-track growth.

In 2017, total imports into Greater Lincolnshire were £8.8bn from a minimum of 3,100 businesses. Total exports were £4.7bn from a minimum of 2,200 business. This is an important trading economy, with 62.9% of exports destined for EU countries, with Belgium (£572m), Netherlands (£336m), France (£191m) and Germany (£179) the main destinations. Greater Lincolnshire export levels (based on 2015 value) per job, per business, and relative to economic size, outperformed many of those of comparator areas and were only slightly below the national average.

Some sectors are potentially exposed to Brexit with 62.9% (£1,831m) of exports are destined for EU countries. Food processing is anticipated to have the largest trade impacts of any sector, while the visitor economy is likely to see implications for the sector's workforce. Ensuring that businesses are supported to continue and expand as new arrangements become clear will be important. This means a focus on post Brexit advice and support, particularly around trade and skills.

Increasing business engagement with technology

Supporting businesses to more readily adopt digital technologies and practices is a priority for Greater Lincolnshire. Uptake of digital technology is low. The 2014 Business Survey showed 1 in 4 businesses do not have a website; 7 in 10 are not using a website for e-commerce. Access to capital is also an issue with Growth Hub grants helping SMEs invests in machinery to boost productivity.

The LEP is home to Lincolnshire's 3 Technology Hubs (Horncastle Hub, MoCap Hub and DesignBlok Hub) which provide an environment where businesses are given the opportunity to use state-of-the-art equipment, as well as having the option to take advantage of workshops and other advice. The 'Award Winning' hubs can help businesses

to create a prototype product, develop a new service or provide a greater level of detail to help improve production lines. Alongside this, Mosaic Digital Hub is a leading-edge community of innovative technology entrepreneurs, creative technology builders, designers, engineers and researchers as 'collaborative solution providers' to attract large corporate clients, investors, media and up-coming talent.

Sites and Premises

The provision of suitable sites and premises for business is an important precondition of economic growth. Across Greater Lincolnshire there is a reasonable supply of land for business development and development opportunities for business premises. However, the property market is relatively weak and very few speculative business premises in the form of new office or industrial units are built without some form of public sector intervention. Therefore businesses are faced with a relatively limited choice of premises. Where the public sector has intervened and brought forward business premises, the occupancy levels are high.

A wide range of employment sites and new land allocations have been identified through the local plans and the Spatial Plan for employment use. Due to the size of Greater Lincolnshire, no comprehensive single assessment of demand and supply of employment land and premises has been undertaken. There are different markets operating in different parts of Greater Lincolnshire and different supply positions, in the city, coast and northern and southern countryside. Greater Lincolnshire has a distinct challenge around the high costs to develop employment sites and premises, with low land value, and significant costs to secure infrastructure and utilities.

North East Lincolnshire has a cluster of six Enterprise zones which form part of the South Humber Industrial Investment Programme (SHIIP), a £42m investment including the creation of mitigation sites, infrastructure to link the ports of Grimsby and Immingham, and serviced sites to encourage and attract further business investment.

A priority for Greater Lincolnshire is to ensure that its three Food Enterprise Zones, and the Humber Enterprise Zone on the South bank are developed and marketed effectively.

Actions to support the Business Environment Foundation

Together local partners will:

1. Support all businesses to grow, build resilience and raise productivity through effective use of technology solutions

- Continue and enhance Growth Hub activity across Greater Lincolnshire, focusing on business resilience and productivity.
- Deliver Digital Business Support programmes covering digital adoption advice and guidance, grants, Industry 4.0 workshops, and Go Digital Conferences. This will include sector specific activity, for example a focus on digital adoption in visitor economy SMEs for marketing and productivity.

- Use the area's Technology Hubs to link traditional businesses with technology businesses to energise an increase in digitisation across all sectors through the Hubs' enterprise outreach programme.
- Continue to develop (with HMG and in partnership with D2N2 LEP) the 'Made Smarter' pilot that will drive industrial digitalisation across Greater Lincolnshire and beyond.
- Seek and identify business and investment opportunities for technology businesses, offering innovative technology solutions to existing challenges faced by traditional industries.
- Develop an enhanced programme to support rapid growth Scale Up businesses
- Grow the Business Lincolnshire Supply Chain Support programme which helps businesses become more competitive by working with them to find new suppliers to improve gross margins and find new customers.
- Work with Be the Business to develop targeted programmes that meet the needs of micro and family owned businesses

2. Maximise the opportunities of the circular economy and energy for all businesses

- Develop a new circular economy business support programme following on from Sustain Lincolnshire Phase 1 and 2.
- Assist businesses to engage in decarbonisation, including harnessing opportunities in high value, renewable energy industries.
- Hold targeted Business Energy Events including the Technology Roadshow Event which will highlight energy technologies that are available to business, and SME Energy Efficiency Event looking at the future business benefits to be gained from transitioning to the circular economy.
- Develop and publicise informative Energy webpages on Business Lincolnshire Website.
- Provide regular updates through Business Lincolnshire on developments that will affect SME., Support will be specialised and backed up by Energy and Circular Economy experts.

3. Develop Greater Lincolnshire's place in the global economy

- Consider developing an internationalisation strategy to support the actions of the Midlands Engine internationalisation strategy.
- Create an investor development programme targeted at businesses in strategic opportunity areas – a soft landing package to include funded managed workspaces, reduced rental periods, supply chain introductions, after care support, facilitated

introductions to membership bodies like the FSB, Chamber, IoD, innovation grants, R&D support, University connections, etc.

- Create a strong, outward facing offer [working with DIT] to promote high potential opportunities to foreign investors around agrifood and clean growth.

4. Focus on tailored interventions to capitalise on our areas of strategic opportunity

- Improve open data availability for energy to support digitisation and adapt to future business models through the Energy and Water strategic opportunity.
- Ensure that three Food Enterprise Zones, and the Humber Enterprise Zone on the South bank is developed and marketed effectively.
- Strengthen the positioning of the Humber ports to attract new value-added manufacturing activity and further grow the share of UK trade they handle.

Working with HMG

- Work with the Department of International Trade to drive investment in our globally competitive sectors of agri-food and clean energy through the High Potential Opportunities Programmes.
- Work with Department of International Trade to drive up the level of inward investment into Greater Lincolnshire.
- Work with BEIS to pilot business support and productivity programmes to support micro and family businesses in Lincolnshire.
- Work with Department of Culture Media and Sport to maximise the opportunities with the Tourism Sector Deal for Lincolnshire, and support the ambition of a visitor economy zone.
- Work with DEFRA to accelerate investment and initiatives that drive investment into the three food enterprise zones.
- Develop proposals for a free trade zone in Immingham.

CASE STUDY

Made Smarter – digitising the manufacturing industry

Made Smarter is a national, government-backed initiative aiming to position the UK as the global leader in the creation, adoption and export of advanced digital technologies by 2030.

The scheme's three-pronged approach targets business leadership; adoption of technologies; and innovation. Successfully adopting industrial digitisation is one way of creating new, high-value jobs throughout the country, helping to rebalance the UK economy.

A £20m Made Smarter pilot currently supports SMEs with under 250 employees in the North West to adopt industrial digital technologies in their production lines. A nationwide rollout is anticipated, making businesses in all regions of the UK eligible for funding.

A 2017 Made Smarter review already highlighted Greater Lincolnshire's work on driving digitisation in the agri-food industry through its work on robotics at the University of Lincoln and at the National Centre for Food Manufacturing in Holbeach. The LEP continues to maintain a strong focus on robotics and automation, particularly in its strategic opportunity areas.

Draft

Place

Capitalise on the dispersed economy to create a leading polycentric, productive economy.

Across every foundation of productivity in Greater Lincolnshire there is a strong place element which must be reflected in implementation. Accounting for approximately 5% of the land mass of England, the area extends from the south bank of the Humber in the north to Stamford in the south (a distance of 140 km by road with a 2 hour drive time). Greater Lincolnshire possesses an attractive quality of place offering, with low population density, plenty of rural space and built up areas.

Larger urban areas provide diverse heritage, industry and living which can and should be supported through the Local Industrial Strategy. The identity of the Rural and Coastal areas in Greater Lincolnshire is strong, although the peripherality and sense of isolation from other parts of the UK in some of these areas – particularly East Lindsey – must be managed carefully. providing high quality of living and a cultural offer and market towns and villages can be an important lifeline for more rural environs.

Natural Capital

There is significant natural capital, including the Lincolnshire Wolds AONB, and six National Trust attractions. Greater Lincolnshire is unique within the Midlands in that it is the only part of the Midlands Engine which has a coastline. The area is dominated by rural and coastal areas, which provide a high standard of living and employment in traditional sectors such as agriculture, visitor economy and energy.

Environmental tourism is increasing in significance, with national nature reserves at Gibraltar Point and Donna Nook combining with the Wolds AONB to draw a national and international audience, which benefits from growing local access and the inclusivity promoted by the development of accessible networks such as the English Coastal Path, the Coastal Observatory and the coastal country park. This also provides connectivity within the coastal area and promotes links through Wolds AONB to the market towns of Louth, Horncastle, Caistor, among others.

With 40% of the area at or below sea level, managing potential risks from coastal, river and surface water flooding is a major factor in sustaining communities. The Lincolnshire Flood Risk and Water Management partnership has developed the Joint Lincolnshire Flood Risk and Water Management Strategy 2019 to 2050, which sets out Lincolnshire's aspiration about managing flood risk, water management and water security in the future.

Housing in Greater Lincolnshire

Greater Lincolnshire has a plentiful supply of land, making it a significant provider of new housing, delivering 12,510 houses between 2013-18. Median house prices remain some of the lowest in England, and in September 2018 ranged from £128,950 in North East Lincolnshire to £177,500 in Lincolnshire, compared with £185,000 for the East Midlands and £232,500 for England as a whole. This reflects relatively low land values and wage levels rather than a lack of developer interest (which is substantial, especially for green field sites). Affordability, measured by the ratio of median house price to median earnings (2018) is 6.8 for the county of Lincolnshire, 5.0 for North East Lincolnshire, and 4.8 for North Lincolnshire, compared to the average for England of 7.8, offering significant potential to develop a more inclusive and equitable economy. Good housing design and appropriate planning will help to further reduce living costs for residents.

Housing delivery has been slower than expected, with developments constrained through viability and local infrastructure. There is strong evidence that without further action the housing delivery targets contained in Greater Lincolnshire's Local Plans will not be delivered. The objectively assessed need as reflected in current local plan figures total 4,805 dwellings per year or approximately 120,000 dwellings to 2036 (the end date of the majority of local plans). Support will be needed to overcome the existing undersupply, and to unlock housing sites that can be delivered by a wide range of suppliers including developers, investors, RSLs and the SME sector.

Flexibility is required to pilot new housing design, delivery and policy solutions which are specific to coastal towns. Under current national policy guidelines, planning authorities must consider a sequential approach to allocating new housing sites. In larger geographic areas, such as East Lindsey, there will always be an opportunity to locate new housing sites away from the rapid inundation zone on the coast. As a result, housing allocations are dispersed across the inland market towns, and few new houses are delivered in coastal towns, adding to the challenges they already face. With challenges come opportunities. To deliver more houses will require more people with construction skills, particularly the skills required to support Modern Methods of Construction (MMC). With access to training, opportunities will exist for Greater Lincolnshire's residents to help construct the houses the region needs.

Prioritising inclusive growth

Greater Lincolnshire's scale and varied area make it challenging to reach businesses and individuals when trying to roll out policy. Networks are more difficult to establish and often recruitment and access to training is a challenge. There is also a large inclusion challenge given the spatial inequalities within the area. This is prevalent not only in rural and coastal locations but also in some of the towns. Providing solutions to promote inclusion is vital in terms of inclusive growth and increasing the prosperity of areas.

The variety of dynamic places in Greater Lincolnshire is outlined earlier in the document. Each has different opportunities and challenges which must be supported and nurtured. Local towns and high streets will require specific support to continue to thrive; the Grimsby Town Deal provides a leading example of the opportunities and interventions which can be taken. The urban areas, in particular Lincoln and Grimsby, are driving innovative and creative industries in the local area and are showing potential for further growth, as is Grantham with its ongoing investment in the Southern Relief Road and strong transport links being on the A1 and East Coast Mainline.

The impacts of having a mix of coastal and rural activity, with vast areas disconnected from major infrastructure and opportunities for learning or employment, has resulted in some places which are more reliant on seasonal, lower paid and lower productivity jobs. If left without intervention, the disparity between these areas and the more prosperous, better connected parts of Greater Lincolnshire will increase.

*** In final draft display information on Spatial Funding Areas in a cut-out box ***

LEADER programme supporting growth

The particular opportunities and challenges in terms facing businesses is exemplified through the LEADER programme. Greater Lincolnshire is split into five EU LEADER funding areas; Coastal Action Zone, Lindsey Action Zone, Wash Fens Local Action Group, Kestevens Local Action Group and Northern Lincolnshire Local Action Group which cover specific places, each with their own unique set of challenges and opportunities.

The Lindsey Action Zone predominantly covers the rural centre of Lincolnshire and has a buoyant business base and take up of funds, particularly around investing in innovative business practices and new technologies that help businesses become more productive and economically sustainable. The over-demand for funding in this area demonstrates the need for this type of funding and the ability of businesses to access it.

The Wash Fens area in the South of the county has also had high demand for the funding, particularly with the inclusion of the farming productivity investment priority that was included in the 2014-2020 programme. This enabled support to the strong agrifood/food production sector within this area and demonstrated how funding aligned to the right investment priorities at the outset had much better impact – processing agricultural products to add value, environmental investments, robotics/automated equipment.

The Kestevens area is a new LEADER area and, covering the rural parts of the westerly North and South Kesteven. Demand for this type of funding from businesses has been high.

The Coastal Action Zone has probably been the most challenging of areas where there are pockets of high rural deprivation and less appetite for business growth and expansion. This is reflected in the lower take-up of funds under the current LEADER programme and similarly under the previous programme.

Actions to support the Place Foundation

Together, local partners will:

1. Work together to make towns stronger, not individually but collectively

- Develop Lincolnshire Vision 2050 and associated delivery plans.
- Enhance the role of town centres, market towns and high streets as hubs using Stronger Towns fund, Future High Street Fund and Local Growth Funds as catalysts.
- Continue to implement the Greater Grimsby Town Deal.
- Develop local place-based responses to spatial focused opportunities and challenges (eg coastal / city / south bank / West) through the Planning for Growth document.
- Develop a new creative hub through the Cultural Development fund.
- Reduce spatial inequalities by utilising Coastal Communities Alliance to develop opportunities in coastal areas.

2. Invest in infrastructure improvements and complement this with reach to pockets of rural isolation

- Explore different funding approaches which could include 100% funding to tackle inequalities in areas where there is genuine need – this could be particularly pertinent to coastal areas.
- Future proof local areas through digital linkages e.g. Connected rural villages.

3. Develop a new local approach to delivering 100,000 homes

- Progress the Housing Infrastructure Fund bids for Grantham and St. George's Barracks.
- Work with Homes England to deliver the housing pipeline – demonstrating best practice in terms of quality, design and environmental standards, developing new approaches to housing & planning to respond to local need around flooding and the different needs of younger and older residents.

- Launch an infrastructure fund to de-risk housing sites and accelerate development by providing upfront funding for infrastructure.
- Work with government to explore freedoms and flexibilities to pilot new housing design, delivery and policy solutions in our coastal towns, using global exemplars from similar regions e.g. Netherlands.

Working with HMG

Content to be developed

Support for manufacturing and engineering supply chain hub - support on major civil engineering contracts.

Working in partnership to deliver the best solutions utilising funding for town centres.

Supporting piloting of 5G in rural areas

Exploring an expansion of the Lincolnshire Wolds AONB

CASE STUDY

Greater Grimsby Town Deal

Once the centre of the Humber fishing industry, today Greater Grimsby lies firmly at the heart of the Energy Estuary. It presents significant opportunities for economic growth and job creation alongside challenges arising from industrial change, including low productivity and wage levels and high levels of unemployment, particularly for 18-21 year olds. North East Lincolnshire lies in the bottom 10% of English local authorities for attainment at both KS2 and KS4.

Greater Grimsby is already home to high-growth, clean energy industries, notably offshore wind, with Orsted's East Coast Hub providing the largest operations and maintenance centre serving the southern North Sea. The Port of Grimsby and Immingham offer global sea freight connectivity for exporters. Local partners want to accelerate export-led growth in port-related logistics and manufacturing, chemicals/petrochemicals and food processing. The South Humber Industrial Investment Programme (SHIIP) is delivering a pipeline of investment-ready Enterprise Zone sites and premises to unlock these opportunities.

Improving Greater Grimsby's quality of place – and in particular the place offer of Grimsby Town Centre - is an essential part of the Council's strategy to attract and retain mobile businesses, people and investment through the Greater Grimsby Town Deal. The Deal brings together £67m of government and local investment to help create 8,800 new jobs and over 9,700 new homes by 2032.

The Greater Grimsby Town Deal will focus on four core themes: drive economic growth; accelerate housing delivery; transform Grimsby's waterfront; and improve skills and educational attainment.

Initial projects are focused on reconnecting the town centre with its under-utilised waterfront through a new multi-activity Youth Zone, to be delivered in partnership with national charity OnSide; and development of a new University Campus with the University of Lincoln and Grimsby Institute. The Town Deal marks the beginning of a stronger relationship between central government and local partners to support the regeneration of Greater Grimsby.

4. Implementation

This strategy sets out the government and Greater Lincolnshire response to opportunities and challenges that need to be addressed to enable increased productivity and inclusive growth.

This Local Industrial Strategy does not include new spending commitments outside of existing budgets. Instead, it will inform the strategic use of local funding streams and, where relevant, spending and decisions at the national level.

To demonstrate progress towards the long-term vision set out by this Local Industrial Strategy, the strategy contains a number of specific actions. Where these actions are locally-led, these will be drawn from local budgets which exist for those purposes; where actions are shared between Greater Lincolnshire and government, they will be funded from existing local and departmental budgets, with funding allocated for those specific purposes.

This strategy does not represent all the priorities and action being developed in Greater Lincolnshire. This strategy sets out long term ambitions and will continue to evolve as the economy changes. Greater Lincolnshire will regularly review the latest evidence to continue designing the most effective approaches and interventions to achieve its objectives.

The actions set out here will be implemented alongside existing plans and broader regional strategies, including the Joint Spatial Plan which is currently being developed.

Successful implementation of this strategy will require the coordinated efforts of a wide range of partners, including local and national government, business, wider public services, universities, and community and voluntary organisations. The Local Industrial Strategy is therefore a further route to strengthening the focus of the strong partnerships in place within the region.

Implementation of this plan will also depend on collaboration with partners beyond the regional boundaries. Greater Lincolnshire will engage with partners in neighbouring regions to ensure the success of this Local Industrial Strategy.

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