



Local Industrial Strategy

Draft

the UK's clean growth region



A globally recognised, technology-driven, creative and inclusive economy which is leading the transition to a post-carbon economy through sustainable food production and sustainable energy generation.

*Cover photos:
Turbines off the All Energy Coast,
researchers at Quadram Institute and
crops at the Norwich Research Park*



Foreword

Building on centuries of innovation, Norfolk and Suffolk is pioneering the technologies and science needed to power, feed and connect a growing national and global population for a cleaner and more sustainable future.

It is the epicentre of the world's largest market for offshore wind energy with expertise in all forms of energy generation. Planned investment will make it the leading supplier of renewable energy to the UK, providing power for more than 58 per cent of UK homes.

It is home to BT's global research and development headquarters at Adastral Park, Ipswich – the UK's leading patent filer for artificial intelligence technologies, where global standards and coding for the internet were pioneered and the single-mode optical fibre was realised.

Norfolk and Suffolk is at the cutting edge of digital innovation, with a globally competitive communications technology and digital creative sector anchored by nationally recognised tech clusters centred on Ipswich and Norwich's fast-growing digital creative hubs.

With specialisms in telecoms, cyber security, quantum technology, artificial intelligence, Internet of Things, user experience design, marine and microbiome research, the area has some of the highest concentrations of knowledge-intensive jobs in the UK.

Home to the largest agri-food sector in the UK, the area boasts world-leading research into plant and soil technology, agricultural systems and health. Norfolk and Suffolk continues to push the boundaries of food and health science, from agriculture pioneers such as Coke of Norfolk and Turnip Townshend to scientists at the John Innes Centre leading the global search to develop new antibiotics discoveries.

There are few places which are so uniquely equipped to make telling contributions to the major challenges facing the world in the 21st century – food and energy security, healthy ageing and living with environmental change in a world where technology is advancing rapidly.

This Local Industrial Strategy has been adopted by local partners. It has been submitted to Government and is awaiting their approval.

*Below: Dudgeon
Offshore Wind Farm*



There are few places which are so uniquely equipped to make telling contributions to the major challenges facing the world in the 21st century

As global, national and local economies adapt to climate change and the transition to a zero-carbon economy, Norfolk and Suffolk is taking action to bring together expertise and emerging technologies across different disciplines and sector boundaries to provide new solutions and clean growth opportunities.

With an economy worth £36bn, Norfolk and Suffolk makes a significant contribution to UK plc and investment here delivers growth. The area strives to be a place with a productive, highly skilled workforce; a place where high-growth businesses aspire to be.

This Local Industrial Strategy is based on strong evidence and sets out the actions local partners are taking and how they are working with government to continue to make this one of the best places in the world to live, work, learn and succeed in business.

The main urban centres of Ipswich and Norwich are dynamic, fast-growing centres with a rich cultural offer and are core to future economy growth. Norfolk and Suffolk market towns are also important and are a significant anchor points for businesses and individuals.

Record numbers of people are engaged in the economy, with 81 per cent of the working age population in Norfolk and Suffolk active, and employment levels exceeding the national average. Skills levels and wages, however, are lower but that gap is closing. Initiatives across Norfolk and Suffolk are improving opportunities for those furthest from the labour market.

Norfolk and Suffolk is strongly connected with the rest of the world. Felixstowe is the UK's largest container port and handles about 42 per cent of its container trade. Norwich Airport, via Schiphol, connects people to over 400 global destinations while other airports like London Stansted are within close reach. The area benefits from important links to London and Cambridge, boasting the UK's most modern fleet of railway rolling stock.

This Local Industrial Strategy reflects the opportunities and needs of Norfolk and Suffolk's growing economy and how it will respond in a fast-changing world. Local partners have put in place a strong partnership that has a track record of delivery. This Local Industrial Strategy shows how Norfolk and Suffolk is going to continue to collaborate across disciplines and boundaries to provide new solutions and the infrastructure that its communities and businesses need.

Norfolk and Suffolk is taking action to bring together expertise and emerging technologies across different disciplines and sector boundaries to provide new solutions and clean growth opportunities.







Executive summary

Norfolk and Suffolk – the UK's clean growth region.

A globally recognised, technology-driven, creative and inclusive economy which is leading the transition to a post-carbon economy through sustainable food production and sustainable energy generation.

With an economy worth £36bn¹, Norfolk and Suffolk makes a significant contribution to UK plc, with globally competitive clusters and growing specialisms from agri-food and clean energy to information and communications technology and digital creative.

Clean growth sits at the heart of this Local Industrial Strategy. Norfolk and Suffolk is at the forefront of tackling the challenges and opportunities of climate change. The area's major strengths in energy generation and usage, and high-tech sustainable agri-food, present major opportunities.

The cross-sector opportunities are particularly exciting, delivering solutions such as energy self-sufficiency in farming, or using older gas platforms for sustainable energy generation, for example, to make a major contribution to the UK's transition to a post-carbon economy.

The Norfolk and Suffolk economy has clear and well-defined potential for growth alongside these major opportunities. This Local Industrial Strategy sets out a series of coherent and specific actions that will drive productivity and growth across the economy as a whole, so that all businesses and communities benefit from sustainable and inclusive growth with clean energy, improved wages and better-quality jobs, innovative transport solutions and support for the ageing population.

The scale of the productivity prize is significant. If Norfolk and Suffolk was operating at the same productivity rate as the UK average, it would contribute an additional £4bn gross value per annum.

As global, national and local economies adapt to climate change and the transition to a zero-carbon economy, Norfolk and Suffolk is taking action to bring together expertise and emerging technologies across different disciplines and sector boundaries to provide new solutions and clean growth opportunities.

This Local Industrial Strategy sets out a series of coherent and specific actions that will drive productivity and growth across the economy as a whole.

Left: Turbines off the All Energy Coast

¹ Norfolk and Suffolk Local Industrial Strategy evidence base – contains all data in this document unless otherwise stated.



Clean Energy: Powering the world

Norfolk and Suffolk is well placed to be a global exemplar for clean, low carbon energy production, exporting services and skills globally, whilst increasing the availability of affordable sustainable energy for local communities and businesses.

Norfolk and Suffolk has expertise in all forms of energy generation and sits at the heart of the world's largest market for offshore wind energy. Planned investment in renewable and nuclear power generation will make it the leading supplier of renewable energy to the UK, providing power for 58 per cent of the UK's homes.

As well as a key role in the production of energy, Norfolk and Suffolk is also playing a leading role in the transition to a zero-carbon economy. Working with the Greater South East Energy Hub to deliver local projects at scale that benefit communities, private investors and businesses operating in the low carbon sector is a priority. Transforming the local energy system and new innovations in wider energy resource use will drive productivity gains across all businesses.

This strategy sets out a range of actions that local partners will take to maximise the clean energy opportunity including:

- Developing an ambitious research and innovation programme that will build on existing clean energy research strengths across the regional universities, Cefas and ORE Catapult, working closely with industry to deliver increased innovation and productivity, new research collaborations and cross-sector translational projects.
- Enhancing the capacity and capability of Norfolk and Suffolk's ports with a series of ambitious projects to attract and capture investment in operations and maintenance, manufacturing and construction to serve the offshore energy market.

- Expanding OrbisEnergy's scope from offshore renewables to 'clean energy', delivering an ambitious innovation and growth programme focussing on supply chain development, new technology solutions, investment in skills and talent, attracting investment, increasing global exports and supporting collaboration across industry to develop a shared all-energy workforce.

Planned investment in renewable and nuclear power generation will make it the leading supplier of renewable energy to the UK, providing power for 58 per cent of the UK's homes.



Agri-food: Feeding the world



Above: Scientists at Quadram Institute

Norfolk and Suffolk has the innovation and expertise to develop, pioneer and apply new approaches to sustainable agriculture, utilising clean energy and innovative water management, and increase value-added processing and exports through the application of new technologies and systems.

Norfolk and Suffolk has the largest agri-food sector in the UK, and world-leading research into plant and soil technology and agricultural systems. Agriculture is changing fast. Opportunities such as automation are transforming agriculture, streamlining crop and livestock production, and informing crop and soil modelling. At the same time, soil degradation, biodiversity loss and climate change alongside a growing global population are driving new challenges and consumer behaviours.

Norfolk and Suffolk is home to an advanced and nationally significant food and drink sector, with globally renowned companies. There are many more quality processing businesses with potential to grow in domestic and international markets.

There is a substantial opportunity to add value to the economy with an increase in processing and high-tech production methods, automation, enhanced use of information technology and other innovations.

This strategy sets out a range of actions that will be taken forward to maximise the clean agri-food opportunity including:

- ❖ Invest in a Food Innovation Hub based at the Honingham Food Enterprise Zone to deliver business growth through innovation, productivity, processing, exports and supporting new start-ups.
- ❖ Collaborate with partners including Lincolnshire, Cambridgeshire and Peterborough leveraging the existing strengths of Agri-Tech East to realise the collective power as the UK centre for high-tech, precision agriculture and food production.
- ❖ Develop a world-leading hub for plant and microbial research at the John Innes Centre.

→ ICT and Digital Creative: Connecting the world

Right: The new STEM Innovation Campus at West Suffolk College will train the next generation of engineers, innovators and manufacturers



Above: Norwich is a hub for digital creative businesses

This strategy will grow and secure the information and communications technology and digital creative clusters at Adastral Park and Norwich as national assets. It will build the integrated networks that businesses need including the UK's first advanced high-speed optical wireless network.

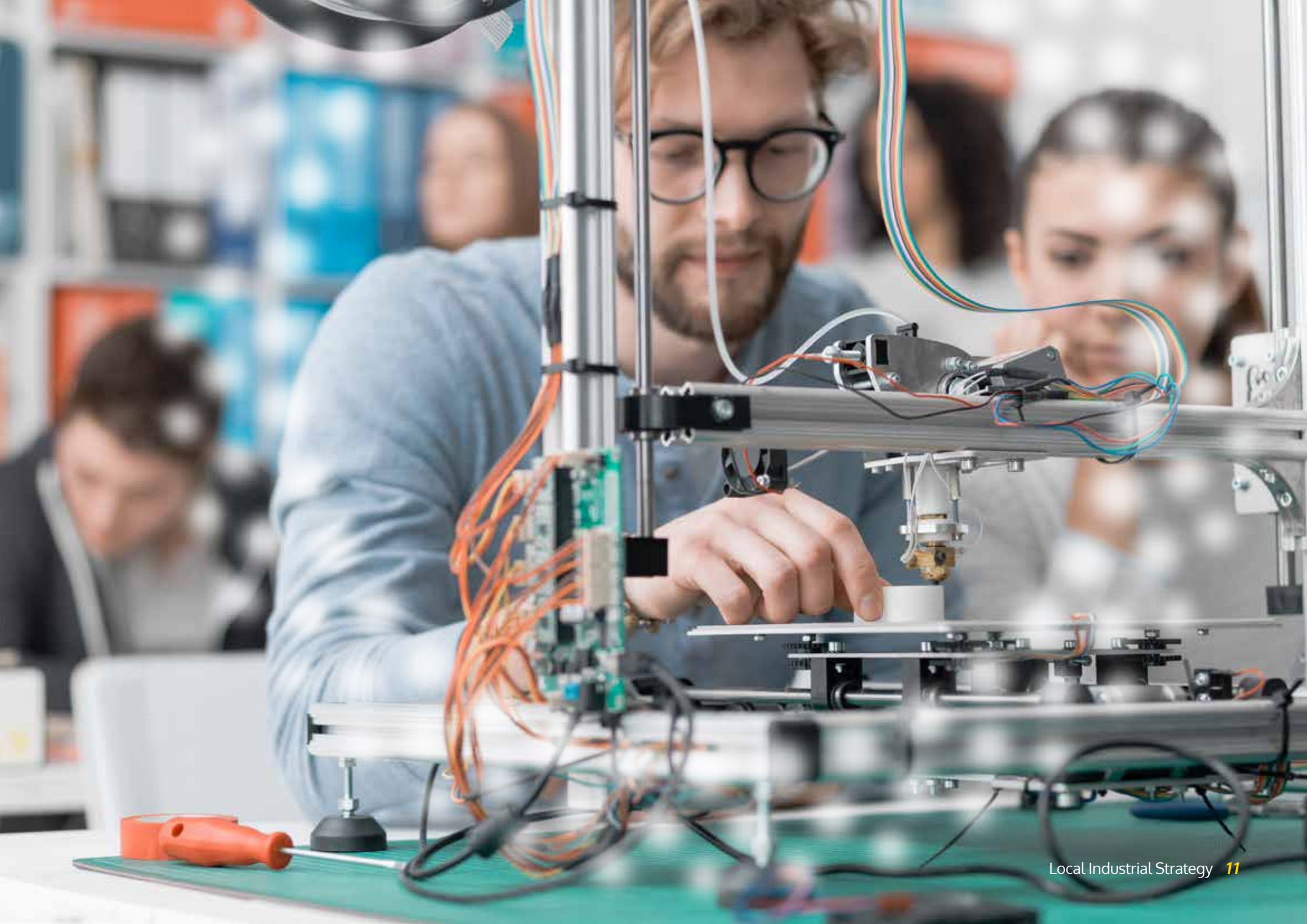
Norfolk and Suffolk's ICT and digital creative opportunity is both fast-growing and high-value. It is at the cutting edge of digital innovation, with distinctive strengths in telecoms, cyber security, quantum technology, artificial intelligence, Internet of Things and user experience design.

It is also imperative in supporting productivity growth and technology-driven innovation across all local sectors, for example through agri-tech and the application of advanced intelligent information technology supporting the low carbon energy transition. It is anchored by nationally recognised tech clusters centred on Norwich's fast-growing digital creative hub, and at Adastral Park near Ipswich.

This strategy sets out a range of actions that will be taken forward to maximise the ICT and digital creative opportunity including:

- Deliver the Adastral Park 2025 vision to take the site to a new level as a major national strategic asset and growth engine for the UK.
- Create a new digital hub in Norwich for the incubation of start-ups and accommodation of scale-up businesses in the digital and creative cluster.
- Develop the economic case for a Smart Emerging Technology Institute (SETI) and testbed – a unique advanced high-speed optical and wireless network (including 5G) which interlinks Internet of Things testbeds to support large-scale experiments and data transfer.

Adastral Park has been identified by Government as one of the UK's High Potential Opportunities for investment.





The foundations of productivity

This Local Industrial Strategy also recognises the strengths and the importance of a number of underpinning sectors in the Norfolk and Suffolk economy – financial services, culture and the visitor economy, ports and logistics, advanced manufacturing and construction. Tackling the productivity challenges in these sectors is a key part of the Local Industrial Strategy.



Ideas: Norfolk and Suffolk has strong innovation assets, but innovation is concentrated in a small number of innovative firms, and world-class research assets, including Norwich Research Park and Adastral Park near Ipswich. There is a long tail of non-innovative businesses.

Together local partners will widen the cross section of businesses innovating and investing by providing the right support and access to the finance needed to increase productivity through innovation, particularly focusing on clean growth and the networks needed. Collaboration, learning and partnership between science, research and business, across different sectors and disciplines, will be strengthened by:

- Introducing a new integrated offer and programme of activity that will stimulate collaboration and innovation. This will include an innovation research and development fund, innovation ambassadors and an innovative projects revenue fund.
- Developing next-generation innovation infrastructure, including an exemplar assisted living community for an ageing society, and exploring the possibility of the Port of Felixstowe becoming an exemplar for blue tech.
- Creating partnerships with other parts of the UK to scope out shared and complementary capabilities to drive forward new innovations and access to new markets.



People: Norfolk and Suffolk has a diverse and growing population. Employment levels are higher than the UK average. The area is a desirable place to live, quality of life is constantly ahead of the national trend with a consistent net inflow of people of all ages, including families and skilled professionals.

Skills levels are increasing in Norfolk and Suffolk faster than in the UK as a whole. But there is more to be done, particularly in digital skills needed by businesses of all sectors.

Local partners will continue to work together to grow an inclusive economy with a highly skilled workforce where skills and employment provision meets business need and the aspirations of individuals by:

- Closing the skills and labour gaps, especially in digital and technical skills, and continuing to build skills across the strategic opportunity areas by delivering sector skills plans, supporting opportunity areas in Ipswich and Norwich and delivering the youth pledge.
- Providing a range of opportunities that enable all residents to upskill throughout their lives, including developing a digital skills programme and working with industries to scale up existing initiatives.
- Improving aspirations and continuing to develop employability and work readiness amongst young people, including developing an apprenticeship levy transfer scheme and enhancing the New Anglia Enterprise Advisor Network and Careers Hub.

**Infrastructure:**

Boosting infrastructure enables success. Places and communities are interconnected, depend on transport links and draw on many of the same labour markets and supply chains. Local partners will work to increase local investment in energy and water efficiency, storage and management infrastructure, alongside existing transport, housing and digital services that will enable all residents to take advantage of economic opportunities by:

- Delivering an integrated approach to infrastructure and inter-regional connectivity to maximise clean growth impacts locally and for UK plc.
- Delivering the right mix of sustainable, energy efficient, intelligent homes, commercial space and communities that are fit for the future.
- Developing exemplar low carbon energy generation, networks and storage which benefit local businesses and communities.

**Business Environment:**

Norfolk and Suffolk has a strong business environment and is a great place to build and grow a business, with stable and resilient firms, strong levels of business support and good business survival rates. The area is home to internationally facing businesses which export £2.9bn of goods and £2.4bn of services. However, there is an

opportunity to encourage a wider cross-section of businesses to engage in exporting, with current levels of exports lower than comparator areas. There is an extensive network of business advice services across Norfolk and Suffolk, centred around the New Anglia Growth Hub, the single point of access for all business support.

Local partners will increase the number of businesses growing and scaling up, and the number of new businesses with high growth potential; and raise sustainability, productivity and wages amongst the wider business base. Businesses will be supported in their efforts to expand market access and attract inward investment by:

- Providing industry leadership that drives actions and takes advantage of the opportunities that exist within and across clean energy, agri-food and ICT and digital creative through establishing industry councils.
- Sharpening the high-quality business support offer to ensure it meets the changing needs of businesses adapting to new ways of working and new technology, including an integrated inward investment and business location offer, expanding Invest East, a free 'investor-led' programme and delivering supply chain programmes.



Norfolk and Suffolk is an outstanding place to live and do business

**Places:**

Norfolk and Suffolk is an outstanding place to live and do business. 140 miles of coastline, three Areas of Outstanding Natural Beauty and a diversity of landscapes, internationally important wildlife reserves and historic sites. The main urban centres of Ipswich and Norwich are dynamic, fast-growing centres with a rich cultural offer and are core to future economy growth.

Norfolk and Suffolk will build on the place-focused approach to improving access to skills and employment agreed in its Economic Strategy, recognising the different requirements of its towns and urban, coastal and rural areas, connecting pockets of deprivation which exist alongside the largest future opportunities. Local partners' actions will include:

- Communicating a clear, ambitious offer to the world central to attracting the people, investors and businesses of the future.
- Accelerating investment on the Enterprise Zones to help drive economic growth.
- Developing a shared investment prospectus with Arts Council and National Lottery Heritage, ensuring that cultural infrastructure is maintained and developed, including specific new development in market towns and places where there is significant new housing.

→ Making it happen



Norfolk and Suffolk partners know that the economy is most successful when they work together for the benefit of the people who live, learn and work here.

This strategy looks to 2036, is based on a robust evidence base and has been developed by a strong local partnership of businesses, local authorities, universities and colleges and the

voluntary, community and social enterprise sectors. It builds on the priorities and targets set by local partners in the Norfolk and Suffolk Economic Strategy, the local blueprint for inclusive growth and productivity gains, with an overall goal to transform the economy into one of the best places in the world to live, learn, work and succeed in business.

A number of tools and systems have been put in place to support delivery:

- Shared evidence base
- Delivery and investment plans
- A common investment prioritisation framework
- A shared inclusive growth toolkit
- An annual stock-take of progress
- An evaluation programme.

Left: Norwich Research Park is home to 3,000 researchers

Technology and Economic Change

Global Change

Demographic and Climate Change

National Industrial Strategy

Strategic Drivers

Norfolk and Suffolk Economic Strategy
'a strategy for growth and opportunity'

Clean Growth: The UK's clean growth region

At the forefront of tackling the challenges and opportunities of climate change. Strengths in energy generation and usage, and high-tech, sustainable agri-food present major opportunities, in particular the cross-sector opportunities which will have a major contribution to the UK's transition to a post-carbon economy.



Clean energy powering the world

The epicentre of the world's largest market for offshore wind energy. The only place in the UK where all forms of energy generation exist together.



Agri-food feeding the world

Advanced and nationally significant agri-food and drink sector, with globally renowned companies. World-leading research base, at the forefront of global food and health research.



ICT and Creative Digital connecting the world

Global centre of research and development and innovation in communications technology. Fast growing digital creative hub, with an international reputation for producing graduates who excel.

Underpinning Sectors *Financial services, culture, the visitor economy, ports and logistics, advanced manufacturing and construction*



Ideas: Improving collaboration across businesses and sectors,

driving up levels of business innovation, whilst increasing the adoption and diffusion of new technologies.



People: Continue to grow an inclusive economy with a highly skilled

workforce where skills and employment provision meet business need and the aspirations of individuals.



Infrastructure: Deliver integrated infrastructure to enable productivity

gains and clean growth and to create places that people want to live and work.



Business Environment: Creating more high growth businesses,

increasing entrepreneurship and helping businesses take the decisions they need to be agile, productive and responsive.







Place: Transforming the Norfolk and Suffolk economy into one of the

best places in the world to live, learn, work and succeed in business.

Economic profile at a glance



A large, diverse economy, but with productivity challenges

	Micro (0 to 9 employees)	88.4 % businesses	30.0 % employment	19.3 % turnover
	Small (10 to 49 employees)	9.7 % businesses	13.5 % employment	13.3 % turnover
	Medium (50 to 249 employees)	1.6 % businesses	10.6 % employment	13.0 % turnover
	Large (250+ employees)	0.4 % businesses	45.8 % employment	54.4 % turnover

62,750	46.8%	£35.8bn	0.7%	2nd
independent enterprises	survival rate of start-ups	contributions to the UK plc	average annual productivity improvement	fastest growing area for high-growth firms



Opportunity for businesses to innovate and export



£2.9bn
of goods exported



£2.4bn
of services exported



50%
growth in
Science and R&D
employment
since 2007
compared with 19% UK average



Inclusive growth

The inclusive growth gap is closing. A faster rate than national average and all comparator areas.

A growing population



31.6%
rate of net
migration of
16-50-year-olds
compared to -14% UK average



3.6%
growth of
residents
compared to 3.7% nationally



23.5%
of residents
aged 65
and over
compared to 18.2% in the UK



9,000
positive net
migration
trend of
residents
per annum



2.8%
growth in
NVQ3+ levels



Housing affordability is
x8.7
times higher than
earnings compared to UK 7.8



Norfolk and
Suffolk lags
behind the
share of pupils
achieving a 9-5
pass in English
and Maths
compared to



76.8%
employment rate of
population aged 16-64
in work compared to 75% across the UK



£487.50 per week
average full-time earnings
compared to £537.50 UK average



40% in 2017/18
43.9% East of
England
43.5% in the UK



7%
apprenticeship uptake
compared to 6% national average



Connectivity and Commuting

Felixstowe is the UK's largest container port



42%
of the UK's
container
trade

29m
tonnes of
imports and
exports

70%
of containers
delivered to
'Golden Triangle'

330
rail
movements
per week



92%
of Norfolk
properties

94%
of Suffolk
properties

**have access to
superfast broadband**



Over **400**
destinations connect
to Norwich, Stansted
& Schiphol airports



90 minutes
by rail to Norwich
from London



60 minutes
by rail to Ipswich
from London



Housing and commercial property



Median property
prices 2017

£218,000
Norfolk

£228,000
UK

£236,000
Suffolk



£80/m²
average commercial
property price
compared to £105/m² average in England



58%
of homes in Norfolk and
Suffolk will be powered
by energy generated in
the region by 2030



Felixstowe Port

Norfolk and Suffolk's Potential



A globally recognised, technology-driven, creative and inclusive economy which is leading the transition to a post-carbon economy through sustainable food production and sustainable energy generation.



Clean growth

A globally recognised, technology-driven and inclusive economy which is leading the transition to a post-carbon economy through sustainable food production and sustainable energy generation.

Clean growth sits at the heart of this Local Industrial Strategy. Norfolk and Suffolk is at the forefront of tackling the challenges and opportunities of climate change – the area will be affected earliest by rising sea levels and changing rainfall patterns, and has major research and business strengths in adapting to the change. The area's major strengths in energy generation and usage, and high-tech, sustainable agri-food present major opportunities. The cross-sector opportunities are particularly exciting, delivering solutions such as energy self-sufficiency in farming, or using older gas platforms for renewable energy generation, for example, to make a major contribution to the UK's transition to a post-carbon economy.

Norfolk and Suffolk has an established, dynamic and growing low carbon economy which is at the cutting edge of the UK's response to the clean growth Grand Challenge. New research commissioned from the world-renowned climate science team at the University of East Anglia highlights the local impacts and mitigation opportunities of climate change in Norfolk and

Suffolk, including agri-food, energy, construction and transport. Coastal flooding, water resourcing and infrastructure resilience are also key considerations.

The results suggest an increase in mean summer temperatures of at least 0.5°C between the two 30-year baseline periods of 1961-90 and 1981-2010. Per capita CO₂ emissions estimates for the UK declined from 8.7 to 5.4 tonnes/person between 2005 and 2016. Norfolk and Suffolk went from having CO₂ emissions per capita below the UK average in 2005 to above average in 2016 (5.7 and 5.6 tonnes/person respectively), reflecting the area's rural character and the importance of road transport.

Norfolk and Suffolk's key strengths and assets make it well placed to be at the forefront of the clean growth revolution:

- ❖ As the UK's leading producer of renewable and low carbon energy and a significant producer of low carbon goods and services.
- ❖ As a testbed for innovation in industries such as farming and food production, transportation and construction which need to reduce their carbon footprint and adapt to a changing climate.

•❖ As an area with an outstanding natural environment and natural resources which are particularly vulnerable to climate change but where innovative new mitigation measures and technologies are being pioneered.

•❖ As an area with a wealth of world-class innovation and thinking, and exportable skills along with many award-winning businesses that are on the leading edge of a low carbon future.

Addressing the challenges of climate change will require actions across society and by many different organisations. Co-ordination of interventions and actions between sectors is critical to achieving future clean inclusive growth.

This local industrial strategy sets out targeted actions against each of the five foundations of productivity, which when taken together will maximise the contribution of our expertise in clean energy, agri-food and ICT, boosting productivity and forging Norfolk and Suffolk's future as the UK's inclusive clean growth region.



THURN Group, based in Acle, received industrial strategy challenge funding for its robot submarines, which enable engineers to see hazards that ice may cause to infrastructure, pipelines and ships around the Arctic.



Strutt and Parker Farms has a significant commitment to renewable energy. Alongside several solar power initiatives, it runs two major anaerobic digesters – the plant at Euston, near Thetford, exports 50,000MWh to the National Grid a year. In a recent project, it took horse muck and straw, processed this through a bio-digester to extract biogas and CO₂. Using advanced membranes, it separated out food-grade CO₂, which is sold to a local brewery for use in beer and lemonade.



The Low Carbon Innovation Fund

operated by the University of East Anglia, provides equity finance for SMEs in the East of England that are contributing to the low carbon economy. This fund provides investments from £25k to £1m to companies from any sector who are seeking investment to grow and develop, reduce their carbon footprint and maximise carbon savings through technologies, products and services. The programme has already invested £20.5m of EU funding matched with nearly £50m of private co-investment from UK and international investors.



Muntions is a leading global player in the supply of malts, malt extracts, flour and flakes to many well-known names in the food and drinks industry and exports 50% of its production. Sustainability is at the heart of everything Muntions does. Liquid waste from its ingredients business at its Stowmarket headquarters is treated at a £5.4m anaerobic digestion plant, producing a fertiliser substitute for spreading on local farms, cutting out the 3,000 tanker movements a year currently required to take sludge from the site – saving around 340 tonnes in CO₂ emissions from the lorries.

Norfolk and Suffolk is well placed to be a global exemplar for clean, low carbon energy production, exporting services and skills globally.

Norfolk and Suffolk has a diverse energy sector with significant generation capacity of solar, wind, nuclear, biomass and gas. It is the only UK region that has such a rich mix of large-scale energy generation technologies, and expertise on local generation, utility networks and energy storage. It has a clear, distinctive and compelling offer around its all-energy sector.





Clean energy



Over 600 businesses

mainly specialising in offshore wind, gas and nuclear



12,000 jobs

with thousands more employed in the wider supply chain



£119,200

GVA per job



Highest

concentration of offshore windfarms in the UK



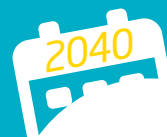
Experts

across nuclear life cycle



£1.4bn

contribution to the economy



£59.4bn
capital investment

in offshore energy and engineering by 2040



£193m

worth of exports



Bacton Gas Terminal

and network of offshore gas platforms supplies over a third of the UK's low carbon transition fuel

Planned investment in offshore wind and nuclear power will produce power for 58% of the UK's homes

58%

Capacity to deliver

50% of sector deal

offshore windfarms in operation and development will meet half the Offshore Wind Sector Deal's 30GW target by 2030



30 GW

with further capacity in the pipeline



Offshore Energy Production

Norfolk and Suffolk is at the epicentre of the world's largest market for offshore wind energy, worth almost £1bn a year. The two counties have the potential to benefit more than any other area in England from growth in offshore wind jobs, with an additional 6,150 full time well-paid skilled jobs by 2032 (+600 per cent growth)².

Norfolk and Suffolk has world-class operations and maintenance facilities. The ports of Great Yarmouth and Lowestoft have benefited from over 50 years of experience supporting the offshore gas industry and have become strategic centres for the offshore wind sector, positioning themselves as England's premier energy ports, with the potential for further growth in operations and maintenance, manufacturing and assembly.

Over the last 15 years, £11bn capital has been invested, with operational turbines generating annual operational and maintenance costs of £253m. Full build-out of projects under construction and in development will require

an additional £22bn in private sector capital expenditure bringing the total operational expenditure to £550m³.

Offshore, the area hosts over 100 gas fields, over 150 gas-related platforms and 4,500km of pipelines. Over the next 30 years there is a potential market of £330bn in decommissioning.⁴ The Southern North Sea is the UK's natural gas basin, with a third of the UK's domestic gas requirements handled at the Bacton Gas Terminal in North Norfolk.

Coastal protection works are currently taking place, including a UK-first innovative sandscaping project to protect Bacton Gas Terminal and the surrounding area for at least a further 25 years.

This strategy recognises the vital role natural gas will play as part of the 'energy transition' as the UK moves towards a net-zero economy, further underpinning the role of Norfolk and Suffolk's offshore energy sectors.

New and innovative energy technology concepts are being investigated in Norfolk and Suffolk, including offshore desalination, leading to hydrogen fuel production; carbon capture and storage; and gas to wire developments linked to the rejuvenation of the Southern North Sea. There is a real opportunity for Norfolk and Suffolk to become a 'test and demonstration zone', highlighting its national and global value. There are opportunities for the reuse or repurposing of gas assets either for use by offshore wind (converting gas platforms in accommodation modules) or for the production of hydrogen with former gas pipelines used to deliver the gas to landfall at the Bacton Gas Terminal.

The area is also an ideal exemplar for energy transition, with oil and gas and offshore wind players co-operating in areas such as offshore training, platform electrification from offshore wind, and shared logistics (accommodation, vessels and helicopter operations for instance).

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² <https://aurawindenergy.com/uploads/publications/Aura-EU-Skills-UK-Offshore-Wind-Skills-Study-Full-Report-October-2018.pdf>

³ 4C Offshore - East of England: Enabling Offshore Wind2018 ⁴ 4C Offshore - East of England: Enabling Offshore Wind2018



Onshore Energy Production

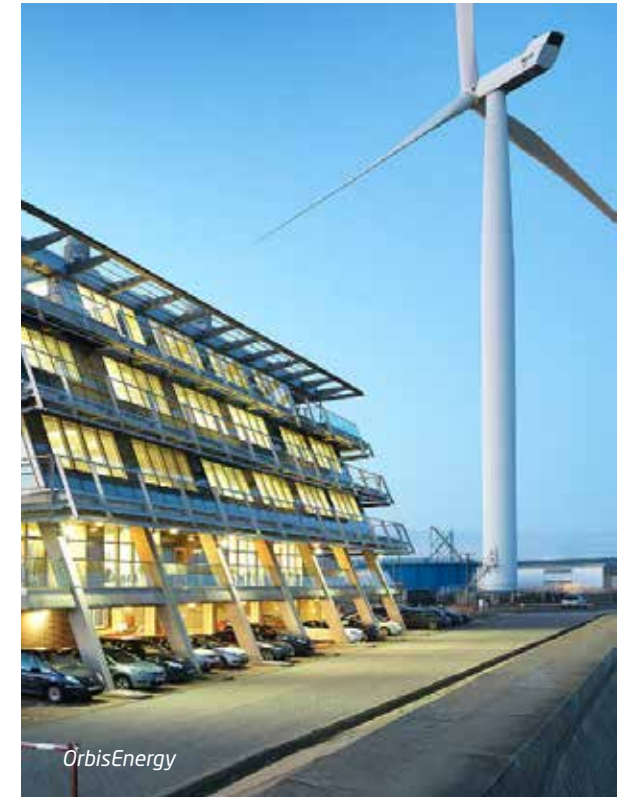
Suffolk is home to three nuclear power stations at different stages of their planning and lifecycles – Sizewell A is in decommissioning; EDF's Sizewell B is the UK's only pressurised water reactor in operation; and the Sizewell C nuclear new build project is expected to seek development consent in 2020.

It is predicted that the Sizewell C power station would inject up to £200m a year into the regional economy during peak construction⁵ and £40m per year during its 60 years of operation. Furthermore, Sizewell C would create 25,000 roles during the construction phase with 900 permanent operational jobs created, plus the need for an 'outage' workforce.

Norfolk and Suffolk is the leading area nationally for animal waste biomass installations with a third of the national capacity in two large plants at Thetford and Eye power stations. One of the UK's newest straw-fed biomass plants has opened at Snetterton, whilst brewer Adnams

operates an anaerobic digester which was the first to export biogas to the grid produced from brewery and food waste.

The bioenergy industry is worth nearly £2bn and is based on the scale of agriculture locally, with 13.7 per cent of England's crop output and 9 per cent of the livestock output. Norfolk and Suffolk is the largest straw-producing area in the UK, with 313,000 hectares of cereals and 60,000 hectares of oilseed crops, with an estimated straw yield of 1.06m tonnes per year.⁶



⁵ <https://www.eastsuffolk.gov.uk/assets/Planning/Sizewell/Economic-Impact/SZC-Economic-Impact-Appendices-v3.0.pdf>

⁶ https://newanglia.co.uk/wp-content/uploads/2019/06/New-Anglia-Clean-Energy-Skills-Plan_FINAL-March-2019.pdf



Clean Energy Generator

Planned investment in new generation projects will result in Norfolk and Suffolk being the largest contributor of clean energy to the UK and central to the UK's successful national transition to a zero-carbon economy.

Despite the area's strengths in clean energy, access to power is limited, holding back housing and industrial development in many parts of the area. Therefore, transforming the local energy system and new innovations in wider energy resource use is also a priority for local partners to deliver productivity gains across all businesses.

Significant investment by National Grid and other partners will be needed alongside local electricity network reinforcement, to support the offshore energy sector and the proposed new

nuclear power station, Sizewell C. It is critical that this is planned and delivered in a strategic and joined-up way to ensure it does not impact on communities and the natural environment, which is a key asset for the area and underpins a highly valuable visitor economy.

There is a clear opportunity for Norfolk and Suffolk to be better recognised as a global exemplar for clean, low carbon energy production through:

- Exporting services and skills globally;
- Expanding the distribution of affordable sustainable energy to local communities and businesses; and
- Improving skills locally.

Transforming the local energy system and new innovations in wider energy resource use is also a priority for local partners to deliver productivity gains across all businesses.

Right: Our region has over 50 years' expertise in the oil and gas sector and the world's largest windfarms in development off the coast



Clean energy



Ambitious Future Plans



Aviva Solar Carport

Local partners will work together to:

- ❖ Develop an ambitious regional research and innovation programme that will build on our existing clean energy research strengths across our regional universities, Cefas and ORE Catapult's new Lowestoft facility, working closely with industry to deliver increased innovation and productivity, new research collaborations and cross-sector translational projects.
- ❖ Enhance the capacity and capability of Norfolk and Suffolk's ports with a series of ambitious projects to attract and capture manufacturing, construction and operations and maintenance investment, to serve the offshore energy market and to facilitate and attract business and supply chain clusters and support business incubation.
- ❖ Expand OrbisEnergy's scope from offshore renewables to 'clean energy', delivering an ambitious innovation and growth programme focussing on supply chain development, new technology solutions, investment in skills and talent, attracting investment, increasing global exports and supporting collaboration across industry to develop a shared all-energy workforce.
- ❖ Explore with central government and regulators developing innovative and locally targeted planning and regulatory pathways for new energy projects, and locally funded infrastructure responsive to environmental and community needs.
- ❖ Support the Greater South East Energy Hub in developing opportunities across the energy and utility networks and enabling more flexible and innovative solutions to the future power generation needs of Norfolk and Suffolk.



3Sun Group, based in Great Yarmouth, led the way in diversifying from a wholly oil and gas business to more than 90 per cent renewables. It has been integral in the installation, servicing and maintenance of offshore wind turbines in the UK and European waters through the supply of skilled technicians and statutory inspection teams. 3Sun has gained a global reputation for expert operational support services specialising in the UK, German and Danish markets.



Energy sector skills – Strong co-ordination of energy skills initiatives is key to ensuring that skills needs are met. Local partners are delivering an energy sector skills plan which focuses on a higher technical engineering offer; mobilises industry leadership; builds workforce transferability; addresses overall energy skills fragility; and delivers inclusive

growth. Local investments will have a major impact on developing the future energy workforce, including the £11.3m energy skills centre at East Coast College in Lowestoft.



Aviva Solar Carport Norwich – One of the largest solar carports in the UK was completed for Aviva by Norfolk-based RenEnergy. More than 542,000 kWh of power, enough to power 138 homes, may be generated by the carport at Aviva's Horizon building in Norwich. During peak hours, the office (accommodating 1,000 employees) will effectively be off-grid and powered 100% by the sun. Annually this system will provide more than 63% of the site's total energy demand – a carbon offset saving of 166.5 tonnes p.a. The carport has futureproofed the Horizon office to allow for the addition of electric vehicle charging infrastructure, enabling employees to charge their low carbon vehicles directly from the sun.



Peake Fruit, owned by Boxford Group and based in Stoke-by-Nayland, were recently awarded Best Green Enterprise BALE Award for their anaerobic digester fed by the pomace from the Konings Copella juice plant and maize. The family business (operating over 80 years) has a number of biomass boilers and solar panels across their agricultural and leisure sites. The energy produced is stored on-site and is used to power their site systems, chiller storage and hotel. This business and many others across Norfolk and Suffolk are working hard to transform traditional agricultural businesses through the use of technology and clean energy.



Agri-food



Largest agri-food output
of any LEP area at **£3.5bn**

LEP
area
accounts
for...



2%

UK's population

4%

UK landmass

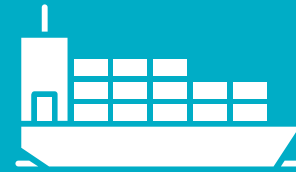
11%

Agri input

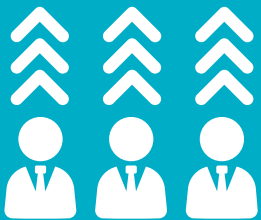


93,300
jobs

8,885
businesses



Exports worth
£569m



Output per job is high
at £38,500
making it a productive sector.



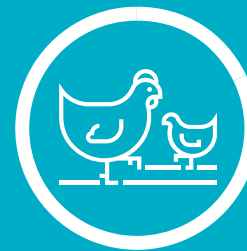
12%
of the
UK's cereals



16.6%
of the UK's fruit
and vegetables



22.7%
of the
UK's pigs



17.6%
of the UK's
poultry production



60%
of the UK's
sugar



A regional focus for agri-food innovation

Norfolk and Suffolk has the innovation and expertise to develop, pioneer and apply new approaches to sustainable agriculture, utilising clean energy and innovative water management, and increase value-added processing and exports through the applications of new technologies and systems.

The world-leading Norwich Research Park is at the forefront of global agri-food research and innovation, employing 3,000 scientists and clinicians.

It is a UK asset equipped to make a leading contribution to the major challenges of food and energy security, healthy ageing and living with environmental change. It is Europe's largest single-site hub of research, training, education and enterprise in food and health. It brings together several research organisations with global reputations:

- the John Innes Centre
- the Earlham Institute
- the Quadram Institute
- The Sainsbury Laboratory
- University of East Anglia
- Norfolk and Norwich University Hospital.

Centre for Fisheries and Aquaculture Science (CEFAS) has been based in Lowestoft since 1902, when it began as a small fisheries laboratory.

The Centre now employs some 600 staff between Lowestoft, Weymouth, English ports, Kuwait and Oman. This is the UK's most diverse centre for applied marine and freshwater science and research, providing innovative solutions for the aquatic environment, biodiversity and food security. A trusted bridge between government, academia and industry, CEFAS provides a multidisciplinary approach to a range of sectors including offshore renewables, fisheries, marine and coastal infrastructure, and shipping.



→ The climate, labour and technology challenge

Alongside this global research expertise, Norfolk and Suffolk has some of the most productive farmland in the UK. However, the impact of climate change is bringing drier summers and wetter winters overall, with the likelihood of extreme rainfall events increasing and extreme weather events becoming more frequent⁷.

The changing pattern of rainfall is already leading to water abstraction restrictions, which is likely to have an impact on growers. Norfolk and Suffolk is at the forefront of the challenge, as well as the research needed to adapt to it.

Machine learning, automation, material science and satellite technology have the potential to increase productivity and improve sustainability across the food supply chain. Adoption of technology is also needed to address challenges created by a lack of labour supply, raising productivity and creating higher skilled, higher paid jobs.

Local agricultural businesses have recognised the need to adapt in response to the climate emergency, biodiversity challenge and technological change. There is a growing appetite to meet the challenge, with the right kind of support.⁸ But across the agri-food sector, innovation is concentrated in a small number of high performing businesses. There is a big opportunity to improve the diffusion of ideas and technology further through the farming base.

Biodiversity and healthy soils are key to a sustainable environment and effective carbon capture, acknowledged by UK leaders in these areas working here – such as the team at the Holkham Estate. But farming more widely faces a major challenge in its capacity and ability to adapt and adopt new techniques and technologies.

Increasing consumer demand for food traceability and sustainability presents an opportunity for growers and processors alike. This could range

from switching more primary production to spelt and other cereals used in gluten-free flours, to developing new plant-based foods informed by the food innovation programme at the Quadram Institute. Supporting businesses to adapt their products to meet the changing demands of the modern consumer will be important.

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Increasing consumer demand for food traceability and sustainability presents an opportunity for growers and processors alike.



Increasing Processing Value

Norfolk and Suffolk is home to an advanced and nationally significant food and drink sector, with globally renowned companies including Kettle Chips, Greene King, Pasta Foods, Muntons, British Sugar, Aspath Cyder, Mars Food, Bernard Matthews and Birds Eye. There are many more quality processing businesses with potential to grow in domestic and international markets.

The area only processes 50 per cent of the food it grows. The opportunity to add value to the economy with an increase in processing and high-tech production methods is substantial. A 50 per cent increase in processing locally grown food could add over £2bn to the economy.

Automation, enhanced use of information technology and other innovations also present opportunities to increase the productivity of these businesses, enhance sustainability and reduce greenhouse gas emissions. There is a commitment locally to help businesses develop the skills and technology needed to take this opportunity.

Norfolk and Suffolk will explore, working with others, the scope for capacity support and new skills development to encourage farmers to adopt new approaches and to better understand the opportunities for innovation. There is significant potential for effective mentoring and sector leadership.

Right: Our region produces 11% of the UK's food and drink





Ambitious Future Plans



Local partners will work together to:

- ❖ Invest in a Food Hub based at the Food Enterprise Zone site at Honingham Thorpe in Norwich, to deliver business growth through innovation, productivity, processing, exports and supporting new start-ups.
- ❖ Explore ways of attracting inward investment to enable higher value food production.
- ❖ Collaborate with partners including Lincolnshire, Cambridgeshire and Peterborough leveraging the existing strengths of Agri-Tech East to realise the collective power as the UK centre for high-tech, precision agriculture and food production.
- ❖ Develop a world-leading hub for plant and microbial research at the John Innes Centre.



Crop Systems in Happisburgh, North Norfolk is an industry-leading innovator in modern crop storage. Its WarmStor product is a revolutionary low-energy system for the automatic conditioning of potatoes for the packing industry. Air source heat pumps are used to bring cold stored potatoes up to the required temperature for packing and also provide rapid cooling of new potatoes. It also produces SmartStor, a system that manages the atmosphere in potato stores with total remote control and management. TaperStor and PosiStor are innovative potato storage facilities which maximise airflow and store conditions to keep the potatoes better for longer.



British Sugar supplies around half of the UK's sugar and supports 9,500 jobs. The advanced manufacturing plant in Bury St Edmunds uses Combined Heat and Power (CHP) which is one of the most

fuel-efficient processes available to turn over two million tonnes of sugar beet into 320,000 tonnes of sugar. In 2016 British Sugar invested £15m in a new Anaerobic Digestion (AD) plant at Bury St Edmunds, producing energy in the form of electricity. While a small proportion is used to power the AD plant, making it self-sufficient, the majority (up to 5MW) is being exported to the National Grid as clean renewable electricity.



Hargreaves Plants, near King's Lynn, is a leading berry fruit, asparagus and rhubarb nursery, with one of the UK's largest micropropagation labs. A £47,000 grant from the Eastern Agri-Tech Growth Initiative enabled it to develop several new varieties of rhubarb to support the growing popularity of rhubarb with consumers.



ICT Digital



Workforce of 23,400



£59,100
GVA per job



£293m
worth of exports

a further 35,000

digital technologists and engineers are active in companies in these and other local sectors, more than doubling the size of the digital tech workforce



£1.4bn
contribution
to the UK PLC



10,000 tech
roles / vacancies
to be filled
by 2024

ICT Digital

The strategy plans to grow and secure the information and communications technology (ICT) and digital creative clusters at Adastral Park and Norwich as national assets, and build the integrated networks that businesses need including the UK's first advanced high-speed optical wireless network.

Norfolk and Suffolk's ICT and digital creative opportunity is both fast-growing and high-value. It is at the cutting edge of digital innovation, with distinctive strengths in telecoms, cyber security, quantum technology, artificial intelligence, Internet of Things and user experience design. It is also imperative in supporting productivity growth and technology-driven innovation across all local sectors and delivering the Artificial Intelligence and Data Grand Challenge, for example through agri-tech and the application of advanced intelligent information technology supporting the low carbon energy transition. It is anchored by recognised tech clusters centred on Norwich's fast-growing digital creative hub, and at Adastral Park near Ipswich. There are opportunities to exploit the area's advantageous proximity to the Cambridge cluster and London Liverpool Street.

Norwich – Digital Creative Cluster

The cluster is characterised by several high-performing home-grown businesses (many of which are global players including Epos Now,

Rainbird, Fountain Partnership and Foolproof) as well as micro start-ups and freelancers. The sector overlaps and interlinks with the financial and insurance services and business services sector. There is real growth potential, but the sector is also a driver for innovation, creativity and productivity across the broader business base.

University of East Anglia (UEA) and Norwich University of the Arts (NUA) are key to the supply of talent for the Norwich area. UEA ranked 15th of the UK's universities⁹, has global pull with students drawn to specialisms that include computing science, computer systems engineering, business information systems, computer graphics, imaging and multimedia, data mining, engineering and environmental science.

NUA is ranked the UK number 1 and in the world's top 10 for games by the gaming industry¹⁰ and has secured an international reputation for producing graduates who excel in a constantly evolving industry and the emerging cluster. It is also gaining national recognition for its user experience and digital design courses. and is home to the Ideas Factory incubation centre for digital creative businesses and user experience lab.

There is major demand for user experience standard skills across both digital creative

primary industries, such as web and software design, and in customer experience in the broader digital economy.

UEA and NUA have developed partnerships with Aviva and Virgin Money to respond to the digital demands of the FinTech finance sector and support SMEs within the local tech networking groups.

SyncNorwich, with over 1,300 members, provides a vibrant networking programme that supports business start-ups, business development and ongoing good practice sharing for the local technology community. Other networking groups include Norfolk Developers and Hot Source.

Adastral Park

Adastral Park, near Ipswich, is home to BT's Global Research and Development headquarters, and a growing cluster of over 120 high-tech companies at Innovation Martlesham, employing almost 4,000 people, generating £515m gross value with a comparatively high productivity rate of £140,000 per job. It is home to the largest test and integration facility in Europe and the world's first 'real-world' demonstration of quantum encryption. Adastral Park is the third largest patent filer in the UK and number one for artificial Intelligence technologies.

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⁹ The Times and The Sunday Times Good University Guide 2019

¹⁰ <https://www.nua.ac.uk/study-at-nua/courses/ba-hons-games-art-design/>

Adastral Park is a BT strategic site, and has set out an ambition to take the site to a new level as a major national strategic asset and growth engine for the UK's ICT sector through the Adastral Park 2025 vision. This initiative will include facilities to underpin the UK's aim to lead in the global ICT sector, accelerate the growth of the UK's emerging telecoms software manufacturing sector, and grow the Innovation Martlesham cluster to over 200 ICT companies and academic partners.

The main aspects of the Adastral Park 2025 vision are:

- ❖ The Tommy Flowers Institute for post-graduate ICT industrial research, creating future research leaders through an academic and industry network;
- ❖ The world's largest converged networks research facility;
- ❖ Maximising the opportunities for the world's first commercial-grade quantum test network link between the BT Labs and the Cambridge node of the UK's new Quantum Network;
- ❖ Exploiting the opportunities of the UK's Centre for Internet of Things operations development;

- ❖ Working with Department for International Trade to promote the Adastral Park High Potential Opportunity offer to foreign investors;
- ❖ Aiming to work specifically with the strategic opportunities, Grand Challenges, the Internet of Things and key sectors including FinTech and Life Science as they adapt to new demands and technology availability.

The tech cluster in Ipswich has a growing tech and digital creative community and innovative start-up scene. SyncIpswich, SIMS and Suffolk Developers bring Ipswich and Suffolk technologies communities together to form new ideas and start-ups, and to push local business growth. Its proximity to Adastral Park and London Liverpool Street presents excellent opportunities for it to continue to grow and thrive and support the wider growth of the economy.

ICT Digital



Ambitious Future Plans

Local partners will work together to:

- ❖ Deliver the Adastral Park 2025 vision to take the site to a new level as a major national strategic asset and growth engine for the UK.
- ❖ Create a new digital hub in Norwich for the incubation of start-ups and accommodation of scale-up businesses in the digital and creative cluster.
- ❖ Develop the economic case for a Smart Emerging Technology Institute (SETI) and testbed – a unique advanced high-speed optical and wireless network (including 5G) which interlinks Internet of Things testbeds to support large-scale experiments and data transfer.

The actions identified under the five foundations of productivity will also help to deliver the ICT and digital creative ambition.



Quantum Network Link – A key component in Adastral Park's array of assets is the commercial-grade quantum network link between BT at Adastral Park, Ipswich and Cambridge University. Launched in 2018, supported by £2m of government funding, the link is the UK's first ultra-secure quantum network link, marking a significant milestone in the UK's ability to develop and test quantum computing technologies. The link uses BT exchanges along the route to act as trusted nodes, and forms part of the UKQN, which is a result of a collaboration between research and industry run by the Quantum Communications Hub.



Thyngs – Bridging the gap between the digital and physical world, Norwich-based Thyngs transforms any product packaging or advertisement into an instant point of transaction. Using any smartphone, consumers can receive personalised content and promotions without having to download an app. Thyngs tracks customers' engagement level in real time and reports back to them on the impact of their experiences. The company was conceived to tackle the growing challenges faced by the charity sector because of the switch to contactless and the need to better engage with donors digitally. Initially working with local charities, Thyngs now supports many national and international charities.



Inawisdom – How we consume data is rapidly changing and Ipswich tech company Inawisdom helps businesses globally to exploit its value through the latest artificial intelligence and machine learning techniques. Optimising this information allows organisations to increase sales margins and maximise operational efficiency, and detect potential fraud, security concerns and other business risk exposure, as well as proactive maintenance of any physical assets. Founded in 2016 with just two members of staff, the company has been consistent and strong in recruiting the best talent and now employs over 70 staff members based at its Ipswich HQ and London office.



NUA is working with Marsh on an innovative programme to enhance productivity through creative development and problem solving techniques. Marsh identified an issue with work cases which could not be completed by their processing teams in Norwich and India due to missing/incomplete information. Recognising the importance of diverse thinking in developing a solution, Marsh contacted NUA to explore a different way of approaching the challenge. Using techniques such as illustration, visualisation, creative persona-building and gameplay, a solution was identified and Marsh has since implemented a number of changes to engage colleagues involved in driving a positive outcome and overcoming cultural barriers. Marsh is now introducing new roles to integrate creative problem solving into its Operations team.



Underpinning sectors

This Local Industrial Strategy also recognises the strengths and the importance of a number of underpinning sectors in the Norfolk and Suffolk economy.



Life Science and Biotech – International expertise in the fields of food, health and microbiome – advanced cluster of animal health and emerging pharmaceutical manufacture.



Transport, Freight and Logistics – The UK's largest container port at Felixstowe on the premier EU-Asia route and the UK's largest exporter of grain at Ipswich.



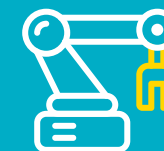
Construction and Development – Large and diverse sector, with emerging specialisation in Passivhaus and sustainable design.



Financial Services and Insurance – One of the largest general insurance and financial services clusters in Europe, with growing start-up financial services businesses.



Visitor Economy – A varied and significant tourist offer, from coast and countryside to postcard market towns, underpinned by a dynamic and pioneering cultural sector. Home to important heritage sites and the home of horseracing at Newmarket.



Advanced Manufacturing and Engineering – National expertise in automotive, civil aviation, composites and pharmaceuticals.

Tackling the productivity challenges in these sectors and maximising their growth opportunities are key parts of this Local Industrial Strategy.



The five foundations of productivity

Ideas

Enhance collaboration across businesses and sectors, driving up levels of business innovation, whilst increasing the adoption and diffusion of new technologies in clean growth, energy and food production.

The ability to innovate – to develop new ideas and deploy them – is one of Britain's great historic strengths¹¹. Norfolk and Suffolk has played a significant role with technological breakthroughs from the hovercraft to the metal framed aircraft, pioneering the coding for the internet at BT Adastral Park to the realisation of the single-mode optical fibre, with scientists at the John Innes Centre leading the global search to develop new antibiotics discoveries that put Norfolk and Suffolk at the forefront of science and innovation.

Innovation Ecosystem – Strong science, research and innovation assets

Today, Norfolk and Suffolk has one of the highest concentrations of knowledge-intensive activity in the country and the components of a strong innovation ecosystem such as a robust research base, vibrant business networks and innovation infrastructure.

Around 8,000 people work across science, innovation and research centres covering specialisms from user experience design, artificial intelligence and advanced engineering to clean energy, marine and microbiome research including:

- Norwich Research Park
- Centre for Fisheries and Aquaculture Science
- Adastral Park
- University of East Anglia
- Norwich University of the Arts
- University of Suffolk

The network of specialist innovation and enterprise centres also extends to King's Lynn Innovation Centre, Hethel Engineering Centre, Ipswich Waterfront Innovation Centre, the Animal Health Trust at Kentford, Newmarket Equine Hospital and OrbisEnergy. These are dispersed across a wide geographic area with specialisms clustered at different locations. Innovation is concentrated in and around these assets and a number of (predominantly larger) companies.

The amount businesses spend on research and development is higher than in most other parts of the UK, however this is concentrated in a small number

of firms. Though only 12 per cent of firms reported undertaking research and development, their spend amounted to £641m, or 1.9 per cent of gross value added, compared with 1.2 per cent nationally.

Norfolk and Suffolk's businesses are amongst the top performing for the adoption of new organisational processes. However, levels of collaborative innovation are amongst the lowest in England, with only 29.2 per cent of firms in Norfolk and Suffolk reporting collaborating for innovation purposes.

Innovation Opportunity – building new networks

There is more to do, building on Norfolk and Suffolk's very strong innovation and research assets, to help foster the partnerships and collaborations that are increasingly driving the take-up of new technology and ideas. Local partners have a clear ambition to further connect up Norfolk and Suffolk's innovation assets, getting more businesses involved and stimulating more cross-sector innovation. Well-connected networks where people can easily and informally access the right expertise, and collaborate and share knowledge, are essential. Strengthening the connections between entrepreneurs, researchers and existing businesses is a core priority of this Local Industrial Strategy.

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¹¹ <https://www.gov.uk/government/publications/industrial-strategy-the-foundations/industrial-strategy-the-5-foundations#ideas>



Together local partners will:

Investing in Innovation

By stimulating more investment in innovation and improving the connection between businesses and the research base, Norfolk and Suffolk's businesses will help to ensure the UK continues to be at the forefront of shaping the businesses and markets of the future.

Public investment in research and development has an important role in stimulating private spending¹². The evidence shows that Norfolk and Suffolk's businesses are less likely to apply for Innovate UK funding than firms elsewhere. There is a significant opportunity to increase research and development spending and increase the area's contribution towards the government's 2.4 per cent target.

The ability to innovate – to develop new ideas and deploy them – is one of Britain's great historic strengths.

¹² Industrial Strategy White Paper p.61 In the UK every £1 of public investment on R&D attracts around £1.40 of private investment

Widen the cross section of businesses innovating and investing by providing the right support and access to finance needed to increase productivity through innovation, particularly focusing on clean growth and the networks needed. They will strengthen collaboration, learning and partnership between science, research and business, across different sectors and disciplines, by:

- ❖ Introducing a new integrated offer and programme of activity that will stimulate collaboration and innovation. This will include:
 - Connecting up innovation centres and assets, opening up access which encourages cross-sector collaborations.
 - Innovation Ambassadors linking entrepreneurs and innovators with businesses seeking to collaborate on projects.
 - a voucher scheme for access to credible and high-quality expert support.
 - an Innovation Research and Development fund with grants ranging from £1k to £25k.
 - Innovative Projects revenue fund, seeking projects that cover ideas and innovation, skills, and the business environment.

- Joining up existing innovation portals to direct entrepreneurs and businesses to the wide range of support services.
- Innovation hackathons providing opportunities for large businesses to work with SMEs to answer commercial challenges.

- ❖ Developing next-generation innovation infrastructure including:
 - an exemplar assisted-living community (living laboratory) for an ageing society, linking up researchers and clinicians to trial and test new technologies.
 - exploring the Port of Felixstowe becoming an exemplar for blue tech (driving sustainable innovation across the maritime and logistics sectors) working with the Connected Places Catapult.
- ❖ Creating partnerships with other parts of the UK to scope out shared and complementary capabilities to drive forward new innovations and access to new markets including:
 - Jointly appointing, with the Offshore Renewable Energy Catapult, a regional manager to support local companies to innovate and develop new technologies for offshore wind.

- Identifying mechanisms to leverage greater value and productivity from enhanced commercialisation opportunities between Norwich Research Park and the existing business base to attract inward investment.
- Working with leading UK universities which specialise in complementary areas of strength in sectors such as agri-food, clean energy and ICT Digital.

Government is working in partnership with Norfolk and Suffolk to support the delivery of this foundation through:

- ❖ £45.9m of competitive funding through Innovate UK to businesses in the local area. Innovate UK is also helping businesses to better understand funding opportunities, further building on the New Anglia Growth Hub workshops and collaboration with local universities.
- ❖ Investing £290m of Local Growth Fund, including the new Ipswich Waterfront Innovation Centre and the new headquarters for the Centre for Environment, Fisheries and Aquaculture Science in Lowestoft.



Quadram Institute – this multi-million-pound innovation asset in Norwich is at the forefront of a new interface between food science, gut biology and health, developing solutions to worldwide challenges in food-related disease and human health. The institute adds to the already global impact of research and development at Norwich Research Park. It hosts fundamental and translational research into food, human health, gut biology and disease, and features a clinical research facility for human trials and a new gastrointestinal endoscopy unit for the Norfolk and Norwich University Hospital. The co-location of these elements will drive new collaborations between fundamental and clinical researchers and is one of the features that makes the Quadram Institute a ground-breaking partnership.



Digital Skills & Innovation Academy–

The project aims to boost innovation skills and productivity across Norfolk and Suffolk by leveraging the capabilities of the University of Suffolk, BT and Adastral Park’s tech cluster Innovation Martlesham. It’s hoped the centre will welcome 520 new students plus 145 new apprentices, and create 36 new jobs in the local area.



The Animal Health Trust (AHT) in Newmarket is the leading veterinary and scientific research charity dedicated to the health and welfare of animals. The veterinary service provides care for sick and injured animals and scientific research discoveries help improve the lives of animals all around the world. AHT’s expertise in preventing disease, from providing specialist advice to developing new vaccines, ensures they lead the way in stopping diseases and conditions from occurring in the first place. Through education and training programmes AHT is developing and supporting the next generation of veterinary and scientific specialists.



People

Growing an inclusive economy with a highly skilled workforce where skills and employment provision meets business need and the aspirations of individuals and communities.

Norfolk and Suffolk has a diverse and growing population. Employment levels are higher than the UK average. The area is a desirable place to live, quality of life is constantly ahead of the national trend with a growing population and a consistent net inflow of people of all ages, including families and skilled professionals. Three universities attract talented and ambitious people each year. Norfolk and Suffolk is a large area, with many residents commuting within the two counties to its urban centres, as well as to Cambridge, London and Essex, particularly from West Suffolk.

Overall, the two counties have a growing ageing population that is economically active with a huge contribution to make. 23.5 per cent of the population are over 65 compared to 18.2 per cent in the UK. This is an economically active, if older, population with the potential to make a huge contribution. The area's strengths in clean energy, agri-food and ICT and digital support a growing population and present opportunities to help address the health and social care challenges.

Skills and aspirations

Historically, Norfolk and Suffolk has had lower skills levels than average, but this trend has been reversed in recent years and skills levels are rising fast but need to continue to do so to meet rising demand for new skills from a growing business base.

Apprenticeships take-up is higher than both the national and wider East of England average. Apprenticeship starts for all ages in Norfolk and Suffolk has more than doubled over the last decade. Most of these apprenticeships are either intermediate or at an advanced level. 7 per cent of all school leavers entered into an apprenticeship compared with 6 per cent nationally, highlighting their slightly higher appeal and density locally.

Key Stage 5 students in Norfolk and Suffolk sustaining an education or employment destination has increased from 63.7 per cent in 2009/10 to 89 per cent in 2016/17. Much of this is driven by an increase in students moving into sustained employment, up from 7.9 per cent in 2009/10 to 29 per cent in 2016/17.

Workforce

Median full-time weekly wages for residents and those working in the area are £516 compared to £569 nationally, and 26.8 per cent of jobs are below the Real Living Wage compared to 22.8 per cent nationally.

There are pockets of deprivation across urban, rural and coastal communities within Norfolk and Suffolk, with quite different needs. Improving transport infrastructure in many rural and coastal areas is an important priority to reduce isolated deprivation coupled with low aspirations and low-skilled employment.

The voluntary, community and social enterprise sector has an important role to play in supporting those furthest from the labour market by reintegrating and re-skilling through training, volunteering or employment. Many of the initiatives undertaken by the sector are delivering locally through actions such as the National Lottery's BIG Local programme.

Norfolk and Suffolk has secured significant funding to develop integrated work and health programmes addressing a rising proportion of long-term unemployed in the area and unlocking their potential to enhance productivity levels. Significant evidence exists supporting the link between wellbeing at work and productivity – with wellbeing including physical health and mental wellbeing. Quality of life is constantly ahead of the national trend, affirming that Norfolk and Suffolk is a desirable place to live. There is opportunity for business to utilise this to enhance productivity and for the area to attract and secure additional business investment.



Above: The new Energy Skills Centre at East Coast College

Far right: Students from Framingham Earl high school working with the Enterprise Adviser Network to learn about business networking

Meeting future skills needs

The large majority of the 'future workforce' is already working. Rapidly emerging technologies and methods are changing the nature of many jobs at all levels, leading to increased demand for technical and digital skills, where there are already clearly defined skills gaps, and the opportunity for higher-value roles in all sectors. This strategy aims to ensure that retraining is available, accessible and fits the needs of individuals and businesses.

The Norfolk and Suffolk Skills Advisory Panel brings together employers, skills providers and local government to pool knowledge on skills and labour market needs and to maximise opportunities such as the large concentration of upcoming nationally significant infrastructure projects across the area. This provides the opportunity to tackle low social mobility levels and areas of high deprivation where they exist. The aim is to ensure that universities and other providers have the information they need to deliver the skills required by employers, now and in the future.

Connecting business and education

Inspiring and preparing young people for the fast-changing world of work is critical to driving the supply of the future workforce. For young people, the New Anglia Enterprise Adviser Network is working with education institutions and wider work inspiration programmes, including 'icanbea', to meet the eight Gatsby benchmarks at a consistently significant rate above the national average.

It is facilitating collaboration between schools and businesses across Norfolk and Suffolk to deliver inspiring careers strategies that will prepare the next generation of workers. Businesses in Norfolk and Suffolk engage with their young people, with 21 per cent of employers locally having offered some kind of work inspiration, which is in the top performing areas in the UK.

Norfolk and Suffolk will continue to promote collaboration between business, Higher Education, Further Education, schools and the public sector to provide the training opportunities and industry placements that enable businesses and people to fulfil their full potential. Further developing the number of graduate vacancies locally and graduate entry routes is also a clear priority.



Together local partners will:

Close the skills and labour gaps, especially in digital and technical skills, and continue to build skills across the strategic opportunity areas by:

- ❖ Supporting Opportunity Areas in Ipswich and Norwich. The local ambition is to maintain the partnerships to continue support social mobility.
- ❖ Delivering an 'Eastern Institute of Technology' to address technical skills shortfalls and social mobility for the young, plus the existing workforce. The curriculum needs to give employers what they need to drive their businesses forward.
- ❖ Fifteen sector skills plans are being delivered locally for each of Norfolk and Suffolk key growth and employment areas, including clean energy, agri-food and digital tech, which identify skills needs and set out the actions to ensure these needs are met.
- ❖ Continuing to deliver the Youth Pledge for all our young people, providing an integrated offer that shows and inspires young people about the opportunities that exist and provides support to enable them to access them, including support into employment.

Provide a range of opportunities that enable all residents to upskill throughout their lives, including:

- ❖ Developing a Digital Skills Programme building on the work of the New Anglia Digital Skills Taskforce and sector skills plan.
- ❖ Supporting the delivery of a disability-confidence scheme for employers.
- ❖ Working with industry and communities to support and scale up existing initiatives that provide career support and wider awareness of the opportunities for working with an older labour force to provide them with fulfilling roles and enable them to contribute to their full potential; and educational programmes that support the development of digital skills right from primary school to postgraduate research and from the workforce to those that are hardest to reach.



Improve aspirations and continue to develop employability and work readiness amongst young people, including:

- ❖ Developing a cost-effective model to support the transfer of apprenticeship levy to businesses by creating a virtual pot where unspent levy is 'transferred' and used to match up businesses with apprentices of all ages (not for those fully funded), new entrants and existing staff at different levels, and providers supporting new skills, reskilling and upskilling.
- ❖ Enhancing New Anglia Enterprise Advisor Network and Careers Hub to ensure all secondary schools and colleges are equipped to achieve all eight of the Gatsby benchmarks.
- ❖ Promoting the work of local colleges to provide 'Farm Ready Students' in conjunction with large farming estates such as Honingham Thorpe Farm, Stody Estate and The Morley Agricultural Foundation.
- ❖ Prioritising leadership support for our entrepreneurs and those in new high-growth businesses, through further accelerator support and business mentorship, providing the ecosystem that new entrepreneurs need to succeed.

Government is working in partnership with Norfolk and Suffolk to support the delivery of this foundation through:

- ❖ Working with the Department for Education to promote the opportunities that qualifications such as T levels bring, encouraging businesses to provide industrial placements enabling students to gain employability skills.
- ❖ Working with the Department for Education to ensure a smooth transition from the existing Skills Board to the new Skills Advisory Panel.
- ❖ Delivering the Department for Education-funded National Centre for Computing Excellence based at West Suffolk College supporting the growth of digital skills in teachers.
- ❖ The £290m investment of Local Growth Fund:
 - Digital Skills & Innovation Academy – a new, nationally significant ICT research and training centre delivered by University of Suffolk, BT and the Adastral Park tech cluster.

- Digi-Tech Factory at City College Norwich – enabling several interconnected Digital Technology, Engineering and Design courses to come together in a purpose-designed building.
- Digital & Technology Skills Hub at Suffolk New College – offering a range of courses which provide the building blocks for individuals to progress into Higher Education and Higher-Level Apprenticeships.
- The STEM innovation campus at West Suffolk College will provide first-class science, engineering and digital education and training for the young people of Norfolk and Suffolk. This campus is next to the site of a proposed £100m+ regeneration project to create and integrate new public facilities and education, skills and enterprise space.
- A £7.4m Institute of Productivity at the University of East Anglia, helping to educate the next generation of digitally aware engineers and business leaders within modern engineering facilities. It will deliver a new regional hub for engineering, technology and management.



The New Anglia Enterprise Adviser

Network matches senior business leaders with secondary schools and colleges across Norfolk and Suffolk to increase student encounters with the world of work and support the development of employer engagement plans. 100 Volunteer Enterprise Advisers from local businesses across Norfolk and Suffolk are supporting schools with delivering inspiring careers strategies. New Anglia Local Enterprise Partnership (LEP) aims to have an adviser in every education establishment in Norfolk and Suffolk by 2020.



New Anglia Skills Deals Programme – a programme of projects across Norfolk and Suffolk, involving many of the area's employers working alongside local providers to find new ways of meeting skills requirements. This includes the new employer-led skills centre at the East

Coast College Great Yarmouth campus supported by almost £500k of Skills Deal funding. The centre is designed to train the next generation of offshore energy sector workers in Norfolk and Suffolk with developers, operators and supply chain companies supporting the cost of training and more than £500k worth of equipment, including wind turbine generators and blades, donated by businesses.



Norwich Inclusive Economy Project

UEA is working in collaboration with Norwich City Council to deliver the Norwich Inclusive Economy Commission project which is exploring the economic issues that the city is facing, the impact of potential future trends, and how the Council might intervene in the economy in new ways in the future. The project seeks to provide new insights into the local economy by moving beyond conventional economic indicators. It will explore the

different forms of economic inclusion and exclusion that exist, as well as often ignored 'hidden' economies.



Award winning Creative Computing Club

– Matthew Applegate, founder of Creative Computing Club, which operates in Ipswich and across Suffolk, won the 2019 BAFTA Young Game Designers Mentor Award. Matthew set up the Creative Computing Club in 2012 and it now works with more than 300 young people every week across Suffolk helping them to engage in technology-based sessions. The club offers short courses on everything from robotics to artificial intelligence to game design. Matthew also works with nine Suffolk schools to help young people learn about creating games.



Infrastructure

Enabling productivity gains and clean growth through the delivery of integrated infrastructure to create places that people want to live and work.

Improvements in infrastructure help to drive business growth and productivity, provide confidence to investors and help support the sharing of innovative thinking. Infrastructure also connects people to a wider breadth of employment and skills development opportunities and offers the potential for a significant shift towards a net zero carbon future. It is the essential underpinning of our lives and work¹³. Places and communities are interconnected, depend on transport links and draw on many of the same labour market and supply chains.

Transport connectivity

Norfolk and Suffolk is strongly connected with the rest of the world and core to the UK's freight and logistics system through the Felixstowe to Nuneaton rail freight corridor and A14. The area is well served by ports (Felixstowe, Ipswich,

Great Yarmouth, Lowestoft and King's Lynn) and airports (Norwich and Stansted) and connectivity to each of these key hubs is critical to ensure their ongoing success to UK plc. The area benefits from important links to London and Cambridge, with recent investments in both the road and rail networks making journey times quicker, with greater seating capacity as well as boasting the UK's most modern fleet of rolling stock.

Committed improvements to date through the Roads Investment Strategy will deliver significant benefits, but additional investment on the A14, A47, A11 and A12 could further drive growth opportunities for Norfolk and Suffolk^{14 15}.

Improving accessibility between our economic centres is essential to the realisation of our future aspirations. It will provide better access to jobs, education and healthcare, encourage the clustering benefits of development and services, and attract inward investment.

The electrification of transport, including last mile connectivity, and wider innovation in

engineering, technology and business models are critical to meeting the ambitions set out in the future of mobility Grand Challenge and supporting the government's ambition for all new cars to be electric by 2040. Almost 40 per cent of all carbon dioxide emissions in Norfolk and Suffolk come from transport¹⁶.

Pursuing opportunities for modal shift and active travel, broader network efficiency and flexibility, as well as reducing the need to travel through initiatives such as improved digital connectivity, will be critical in delivering clean growth across Norfolk and Suffolk.

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¹³ <https://www.gov.uk/government/publications/industrial-strategy-the-foundations/industrial-strategy-the-foundations#infrastructure>

¹⁴ *Britain's Premier Trade Route*, Suffolk Chamber of Commerce, 2019

¹⁵ *Investing in East-West Success*, A47 Alliance 2019

¹⁶ *Climate Change Adaptation and Carbon Reduction Action Plan Scoping Report*, UEA, 2019

Digital connectivity

The Better Broadband for Norfolk and Suffolk programmes¹⁷ have made a significant impact on digital connectivity with 92 per cent of Norfolk and 94 per cent of Suffolk properties having access to superfast broadband.

Although higher than the national average – take-up of superfast broadband is 67 per cent with levels relatively high in rural areas – there is still work to be done to improve take-up, applying readily available technology and connecting the rural communities and businesses that are still unable to access superfast broadband.

We will work with government to fulfil its pledge to bring ultrafast broadband to all homes and businesses by 2025.

Housing and Commercial Space

Housing affordability is diverse across Norfolk and Suffolk. Median house prices of £225,000 are similar to the UK average of £228,500. However, this is about 8.7 times higher than earnings, making them less affordable than the UK average of 7.8. House prices vary throughout the two counties with higher prices in parts of Suffolk and the north Norfolk coastline. Like most places across the UK, delivering against ambitious targets to build new homes has been challenging. However, Local Plan allocations and

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¹⁷ Better Broadband for Norfolk: <https://www.norfolk.gov.uk/what-we-do-and-how-we-work/campaigns/digital-connectivity/better-broadband-for-norfolk> and Suffolk: <https://www.betterbroadbandsuffolk.com>

¹⁸ <https://newanglia.co.uk/wp-content/uploads/2019/03/LEE-Strategy-LOW-RES.pdf>

permissions data do indicate that there will be a substantial upswing in housing completions to 2021.

Norfolk and Suffolk has a dynamic commercial property market, with pockets of relatively low-value properties close to the major growth opportunities. Although existing commercial development site allocation is on trend to meet projected demand, many of these sites need further infrastructure to open up the site for development, which is difficult to forward fund. Local partners are committed to building the right housing and commercial space where it is needed, with quality design and integrated infrastructure, with aim to build sustainable communities and places where people want to live and work, and can thrive.

Energy

Norfolk and Suffolk's all-energy production is a significant asset to UK plc but there are clear challenges ahead when it comes to the electrification of transport and heat and the move towards a more digital society.

Although domestic and commercial energy consumption across the two counties is decreasing, the number of customers and meters is rising. Grid and substation constraints across the two counties are a challenge to growth in many locations.

Norfolk and Suffolk is working through the BEIS (Business, Energy and Industrial Strategy) supported Greater South East Energy Hub to help provide support in thinking innovatively about local and sustainable energy solutions. The Local Energy East strategy¹⁸, developed in partnership with neighbouring LEPs, sets out collective local energy ambitions to 2030 and is underpinned by a range of activities which are being take forward.

The decarbonisation of heat offers significant opportunity for the infrastructure around Bacton Gas Terminal from the introduction of hydrogen.

In 'off-gas' areas across Norfolk and Suffolk, the key priority will be providing future low carbon options other than hydrogen.

Water

Norfolk and Suffolk is amongst the driest areas in the UK with low rainfall, but is also at high risk of flooding due to the combination of low-lying land and its 140-mile-long coastline. With increasing pressures on energy and water through growth and climate change, the area must consider how it manages energy and water demand. In particular it must consider the impact of climate change for the most vulnerable infrastructure, communities and sectors.



Together local partners will:

Deliver an integrated approach to infrastructure and inter-regional connectivity to maximise clean growth impacts locally and for UK plc by:

- ❖ Delivering integrated transport priorities that reduce the need to travel and encourage modal shift as well as support a growing and thriving economy including:
 - Taking an active role in Transport East, the sub-national transport forum for the East of England.
 - Continue to work with Network Rail and other partners, such as the Cambridgeshire and Peterborough Combined Authority, to deliver the improvements at Ely, Haughley and Trowse rail junctions.
 - Promoting the eastern section of the East-West rail project.
 - Develop options for integrated ticketing and pioneer the sharing economy alongside other initiatives to encourage modal shift and network efficiency.
 - Develop an Electric Vehicle plan which covers take-up, the necessary supporting infrastructure and electrification of freight, and sets out the support needed for demand-led EV roll-out.
 - Work with the Connected Places Catapult to maximise future of mobility opportunities locally.

❖ Delivering the right mix of sustainable, energy efficient, intelligent homes, commercial space and communities that are fit for the future including:

- Enhancing digital infrastructure both fixed and mobile through delivering initiatives such as the Norfolk & Suffolk Innovation Network.
- Working with Homes England and the construction industry to explore and implement innovative approaches to building homes.
- Encouraging new housing entrants into the market to improve diversification, driving innovative and sustainable delivery.
- Identifying and addressing specific pockets of under-supply of suitable commercial space to accommodate business growth.
- Taking an active role in Water Resource East to develop a single multi-sector regional approach to water resources.
- Working with local communities to promote and support them to access Defra's Rural Community Energy Fund.
- Enhance digital connectivity, with a particular focus on super-fast broadband in rural areas, gigabit connectivity to support our growing ICT and digital clusters and reliable mobile phone coverage for those travelling around the region.

❖ Developing exemplar low carbon energy generation, networks and storage which benefit local businesses and communities including:

- Increasing the number, quality and scale of local energy projects delivered working with the Greater South East Energy Hub.
- Next generation technologies focussed on reducing demand and carbon emissions including generation of hydrogen from hydrolysis to produce clean fuel; carbon capture storage; and a new resilient, flexible transmission network.
- Developing a local energy investment prospectus to demonstrate opportunities for innovative funding and delivery methods.
- Actively working with UKPN to address grid constraint for existing and new demand and generation, moving away from the business-as-usual connection model to managing demand, using smart technologies, and developing local power storage and generation to alleviate network constraint on the distribution network to the benefit of growth and future housing.

Government is working in partnership with Norfolk and Suffolk to support the delivery of this foundation through:

- ❖ Local Full Fibre Networks Challenge Fund with Norfolk and Suffolk receiving £8m and £5.9m respectively.
- ❖ Transforming Cities Fund with Norwich already securing £6.1m of government funding.
- ❖ Future High Streets Fund with Great Yarmouth and King's Lynn securing £150,000 each to develop plans to revive their high streets.
- ❖ Stronger Towns Fund with Great Yarmouth, Lowestoft, King's Lynn, North Walsham and Swaffham receiving funds.
- ❖ Allocating funding for the Third River Crossing in Great Yarmouth (£98m) and the Lake Lothing Crossing in Lowestoft (£73.4m) for which both schemes are currently progressing through the planning system.



West Suffolk Solar – Toggam Solar Farm near Lakenheath is one of the largest local authority-owned solar farms in the UK and has generated more than £1.5m of income in its third year. West Suffolk Council owns the 12.4MW solar farm in Lakenheath and the income generated is helping to fund council services for residents and businesses, while also making a significant carbon reduction. The council has over 60 roof mounted solar PV installations on its main buildings and leisure centres and through its “Solar for Business” programme – supporting local businesses in reducing energy costs and carbon emissions – a total of 1,289,844kWh of electricity has been generated and saved 396 tCO₂e – equivalent to taking 147 cars off the road.



Equipmake – an innovative company based at Hethel Engineering Centre near Norwich is amongst those leading the way in electric vehicle (EV) technology.

Not only a leader in ultra-high-performance electric motors, it also specialises in complete EV drivetrains and ultra-fast power electronic systems. Experienced at collaborative R&D projects, Equipmake has developed a range of products including the High-Performance Carbon Reduction (HIPERCAR) performance range-extended electric sports car, co-developed with Ariel and Delta Motorsport. Equipmake is due to move to a new facility near Snetterton motor racing circuit this year and aims to begin commercial-scale production there in 2020.



Norfolk and Suffolk Innovation Network

– The project will deliver the largest free public sector Long Range Wide Area Network in the UK enabling all organisations and the public to explore, trial and implement Internet of Things technology across Norfolk and Suffolk. This infrastructure will provide the foundation for a whole ecosystem to help transform the local economy, engaging the creation of new innovative businesses; educating schoolchildren and students about the technology and increasing interest in coding careers; enabling alternative solutions where mobile phone networks are inadequate; and allowing for entrepreneurs to trial and demonstrate their ideas.



Business Environment

Creating more high-growth businesses, increasing entrepreneurship and helping businesses take the decisions they need to be agile, productive and responsive.

Business base

Norfolk and Suffolk has a strong business environment and is a great place to build and grow a business, with stable and resilient firms, strong levels of business support and good business survival rates.

There is a large and diverse business population of 62,750 independent enterprises growing by 13.9 per cent since 2013, which is below the UK average of 23.2 per cent.

SMEs account for 99.7 per cent of businesses, which is in line with the UK average. Despite accounting for the overwhelming majority of businesses, micro-firms (0-9 employees, 88 per cent) represent only 19 per cent of turnover and 30 per cent of all employees. In contrast, large businesses (250+ employees) account for about half of all employment and turnover.

The area has a business birth rate of 11.1 per cent, which is lower than for the UK, at 13.1 per cent.

However, businesses that start here, stay here with good business survival rates – almost 47 per cent of firms are still in business five years after starting up, which is higher than the UK average of 43 per cent.

High-growth firms form and flourish here, with 43 per cent growth since 2012 significantly outpacing both the eastern region, 23 per cent, and the UK, 12 per cent. Ipswich and Norwich are in the top 10 fastest growing locations in the UK with vibrant, diverse economies.

Opportunity for businesses to export and secure inward investment

Norfolk and Suffolk is home to internationally facing businesses which export £2.9bn of goods, over 55 per cent to the EU, and £2.4bn of services. With the current level of exports lower than comparator areas, there is an opportunity to encourage a wider cross-section of businesses to engage in exporting.

Supporting businesses to grow and scale up

There is an extensive network of business advice services across Norfolk and Suffolk, centred around the New Anglia Growth Hub, the single point of access for all business support.

The wider business support network includes start-up agencies MENTA and NWES as well as business intermediaries such as the Chamber of Commerce, the Federation of Small Businesses, the Confederation of British Industry, and the Institute of Directors, National Farmers Union, Country and Land Association and strong levels of support from the financial and professional services sectors.

The Space to Innovate Enterprise Zone comprises 10 sites across Norfolk and Suffolk, with each site focusing on the area's key innovation sectors and supply chains where it has specialist expertise and knowledge.

The voluntary, community and social enterprise sector has an important role in Norfolk and Suffolk in encouraging and supporting enterprise and business growth, particularly in hard-to-reach communities.

Norfolk and Suffolk has a strong business environment and is a great place to build and grow a business.



Together local partners will:

Increase the number of businesses growing and scaling up, and the number of new high-growth-potential businesses; and raise sustainability, productivity and wages amongst the wider business base. They will support businesses to expand market access and attract inward investment by:

- ❖ Providing industry leadership that drives actions and takes advantage of the opportunities that exist within and across clean energy, agri-food and information and communications technology and digital creative, including:
 - Building on the recent launch of the All-Energy Industry Council, establishing an Agri-Food Industry Council and Digital Tech Council.
 - Working with the Department for International Trade to promote high-potential opportunities to foreign investors.
- ❖ Sharpening the high-quality business support offer to ensure it meets the changing needs of businesses adapting to new ways of working and new technology, including:
 - Ensuring that hard-to-reach rural businesses have access to funding through the DRIVE Programme, providing small grants to rural SMEs.
- Expanding business-led initiatives to boost productivity and technology adoption, such as Be the Business for the visitor economy.
- Delivering an integrated inward investment and business location offer.
- Expanding Invest East, a free 'investor-led' programme that supports businesses to understand and prepare to raise equity and other forms of finance.
- Expanding funding and support for spinouts, widening accessibility and building on initiatives such as university enterprise funds.
- A mentoring support scheme, supported by local large businesses, which will further enhance the New Anglia Scale Up programme.
- Enhanced targeted support for high-potential businesses, including supply chain support programmes, with peer-to-peer and collaborative support for businesses.
- Enhancing support for SMEs and start-ups in the digital and creative sector, including co-working space.
- Targeted export support for firms working with the Department for International Trade and those below the threshold.
- Delivering supply chain programmes that support local SMEs and the wider business

base through initiatives such as:

- Increasing UK content in the offshore wind supply chain, working with developers and local businesses to make best use of the Offshore Wind Growth Partnership.
- Delivering local supply chain opportunities linked to Sizewell C work packages for businesses to bid for and access.



Government is working in partnership with Norfolk and Suffolk to support the delivery of this foundation by:

- ❖ Investing in a £290m Local Growth Fund in the area, which has delivered, for example:
 - the Eastern Agri-Tech Growth Initiative which is supporting the development of new and innovative ideas within this growing sector.
 - £31.8m of Growing Places Funding, providing loan funding to help kick-start and support development projects.
 - £2m to New Anglia Capital to support to stimulate entrepreneurship and support job creation in early-stage businesses with high potential
 - £25m to Growing Business Fund to support local businesses which want to grow and create new jobs.
- ❖ Continuing to support New Anglia's Growth Hub to provide a gateway to high-quality business support across both counties, as well as targeted support to businesses with high growth potential.
- ❖ Supporting the development of the Enterprise Zone.



New Anglia Business Growth

Programme – providing £47m worth of business support across Norfolk and Suffolk between April 2013 and March 2022, including:

- New Anglia Growth Hub
- Small Grant Scheme (£1k-25k)
- Growing Business Fund (£25k-500k)
- Support for start-ups



Business Energy Efficiency (BEE) Anglia

has offered free energy efficiency advice and grants to over 800 SMEs across

Norfolk and Suffolk. Since 2016, BEE Anglia has awarded over £1m to 160 organisations¹⁹, supporting a wide range of projects, and helping businesses of all sectors to cut their energy costs and carbon footprint.



Local Productivity Club, King's Lynn –

Free training and support is being offered to SMEs in West Norfolk through a new productivity club launched thanks to a grant of nearly £60k from Innovate UK, the government's innovation agency. The successful bid for funding was made through a collaboration between Anglia Business Growth Consultants Limited, the College of West Anglia and West Norfolk Council, and the project aims to demonstrate that forming a group of small, low-productivity companies from the same local area, together with support, can deliver significant productivity gains within four months.

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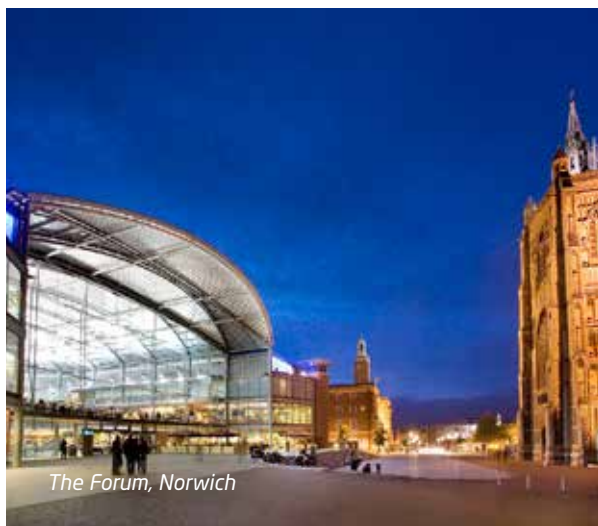
¹⁹ <http://www.beeanglia.org/news-and-events/small-grant-pot-launched/>



Places

Transforming the Norfolk and Suffolk economy into one of the best places in the world to live, learn, work and succeed in business.

Norfolk and Suffolk is an outstanding place to live and do business. 140 miles of coastline, three Areas of Outstanding Natural Beauty – the Norfolk Coast and the Suffolk Coast and Heaths; Dedham Vale/Stour Valley; and the Broads National Park – and a diversity of landscapes, internationally important wildlife reserves and historic sites.



The Forum, Norwich

The main urban centres of Ipswich and Norwich are dynamic, fast-growing centres with a rich cultural offer and are core to future economy growth. Both are well connected to London, and are nationally significant centres of ICT, energy, business services and creative businesses. The area's market towns are important and are a significant anchor point for businesses and individuals.

The Norfolk and Suffolk Economic Strategy sets out major growth locations and growth corridors in more detail, underpinned with a robust evidence base. Detailed understanding of what is needed to continue to drive and unlock each location is set out in local economic strategies and plans. This Local Industrial Strategy shows how the major opportunities identified locally can benefit the different parts of Norfolk and Suffolk.

Norfolk and Suffolk will build on the place-focused approach to improving access to skills and employment agreed in its Economic Strategy, recognising the different requirements of its market towns, urban, coastal and rural areas, connecting pockets of deprivation which exist alongside the largest future opportunities.

The two counties will look to capitalise on the potential economic opportunity afforded to the

eastern section of the Oxford-Cambridge arc through links with East West Rail. Furthermore, the Cambridge-Norwich Tech Corridor comprises the UK's most established tech cluster in Cambridge, and clusters of business and research excellence across advanced manufacturing, engineering, agri-tech, life sciences, robotics and digital creative towards Norwich. It contains over 12,000 knowledge-intensive businesses and is well placed to develop synergies with businesses in both Cambridge and Norwich. The tech corridor is seeking to attract investment in these areas.

The culture sector ensures that places are distinctive, with rich history and a sense of purpose and identity, attracting new businesses and investment. 'Place' nurtures and supports thriving economies that are creative, tolerant, enterprising and entrepreneurial. Norfolk and Suffolk's museums, theatres, festivals, concert halls, dance houses and creative spaces play a key role in bringing people together, generating opportunities for community celebration, reflection and learning, whilst also supporting tourism and related small businesses. Truly successful places are always underpinned by a sense of creative vibrancy, a manifestly strong quality of life, and a clear sense of cultural identity.

Clean Energy

There is notable clustering of the energy sector along the coast in Suffolk (particularly around the nuclear cluster servicing Sizewell), Great Yarmouth and Lowestoft (servicing the offshore wind and oil and gas industry) and North Norfolk (around Bacton Gas Terminal).

Beyond the all-energy coast, the sector also has a visible representation in Ipswich and Greater Norwich – servicing the respective clusters in nuclear and offshore – as well as King's Lynn and West Norfolk, alongside parts of mid and west Suffolk.

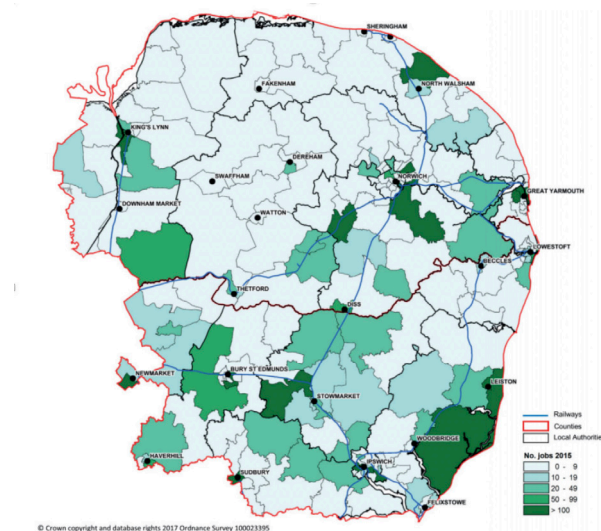


Figure 10.7 – Energy sector clusters in Norfolk and Suffolk, 2015

The Great Yarmouth and Lowestoft Enterprise Zone comprises of six sites across the coastal towns, supporting the clustering of energy businesses and creation of high-skilled jobs. The zone has the potential to create 18,500 new jobs over the next 25 years.

The ports of Great Yarmouth and Lowestoft are strategic centres for the offshore wind sector. Significant investment has been made in port infrastructure to support pre-assembly, construction, installation and operations and maintenance, with land available for further expansion.

Norfolk and Suffolk has the closest ports to the four high-growth export markets of Belgium, Denmark, Germany and the Netherlands.²⁰ Beyond Europe, Norfolk and Suffolk companies are already exporting their expertise to Asia, North and South America and the Middle East, with the potential to increase this further.

Norfolk and Suffolk is the leading area nationally for animal waste biomass installations, with a third of the national capacity in two large plants at Thetford and Eye power stations.

Suffolk is home to three nuclear power stations at the different stages – Sizewell A is in decommissioning; EDF's Sizewell B is the UK's

only pressurised water reactor in operation; and the Sizewell C nuclear new build project will be submitted for development consent in 2020.

Agri-food

Agri-food is significant in almost every part of Norfolk and Suffolk. Despite an evident and valued presence in rural and semi-rural areas, the sector also has notable concentrations in and around urban areas, particularly market towns such as Bury St Edmunds, Stowmarket, Thetford, Sudbury, King's Lynn and Diss.

Growth corridors are also evident, reflecting their role in food and drink production. The Stowmarket, Orwell and Greater Norwich food and drink clusters are particularly evident, which in part contributed to these areas being amongst the first three Food Enterprise Zones (FEZs) in the country.

- ❖ The renowned Suffolk Food Hall and Jimmy's Farm outside Ipswich.
- ❖ Stowmarket Gateway 14 site – which has ambitious plans to produce its own heat and power through a dedicated heat network and on-site power production and capture.
- ❖ The Food Enterprise Park in Norwich, where an innovative mustard and mint milling facility, Condimentum, is currently being built.

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²⁰ 4C Offshore – East of England: Enabling Offshore Wind 2018

Top: Agri-food
Bottom: ICT and Digital Creative

Norfolk and Suffolk's ports also play a key role in the import and export of agricultural products and food, whether the UK's leading grain port at Ipswich, the UK's biggest container port at Felixstowe, or King's Lynn port, which specialises in handling agribulks and aggregates.

ICT and Digital Creative

Spatially, ICT and digital businesses are dispersed across Norfolk and Suffolk, though most densely concentrated in urban areas. Recognised in the Tech Nation Report as nationally significant tech clusters, Ipswich and Norwich have a growing tech community and innovative start-up scene.

Norwich has specialisms in tech and digital creative and Ipswich in ICT and tech-related research and consultancy.

In the west of the two counties, particularly in Newmarket, Bury St Edmunds and King's Lynn, there are also notable concentrations of digital tech businesses, many exploiting the advantageous proximity to the Cambridge cluster.

Stowmarket and Diss are both on the mainline to London and have a noticeable clustering of activity.

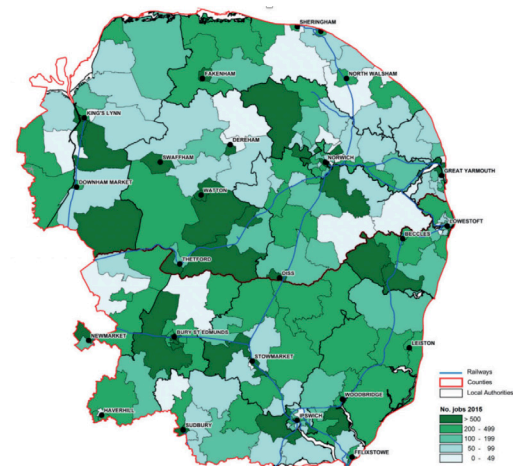


Figure 11.3 – Advanced agriculture, food and drink sector clusters in Norfolk and Suffolk, 2015

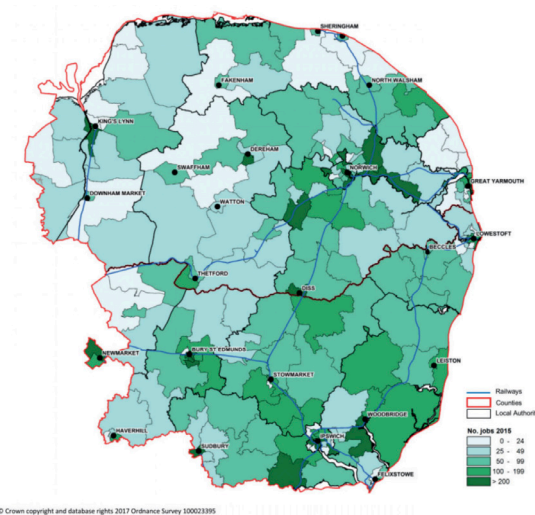


Figure 11.1 – ICT, tech and digital creative sector clusters in Norfolk and Suffolk, 2015



Together local partners will:

- Communicate a clear, ambitious offer to the world central to attracting the people, investors and businesses of the future.
- Accelerate investment on the Enterprise Zones to help drive economic growth.
- Work with Anglian Water and other partners to establish Natural Capital East to protect and enhance the natural resource base, while increasing productivity and adding value with targeted investment.
- Develop a collaborative maritime cluster with the view of having a stronger Coastal Powerhouse narrative with government, ensuring that the opportunities of Maritime 2050 are maximised for the Norfolk and Suffolk area.
- Develop a shared investment prospectus with Arts Council and National Lottery Heritage, ensuring that cultural infrastructure is maintained and developed, including specific new development in market towns and places where there is significant new housing.



Making it Happen: Collaboration, Implementation and Evaluation

Norfolk and Suffolk partners know that the economy is most successful when they work together for the benefit of the people who live, learn and work here.

This Local Industrial Strategy will not be delivered by one partner alone or by one strand of investment or actions. It is the next stage in the evolution and implementation of the Norfolk and Suffolk Economic Strategy.

Local partners have a strong track record of delivery. Businesses, New Anglia LEP, local authorities, third sector organisations, colleges and universities collaborate to deliver shared ambitions rather than focusing on organisational, sectoral or geographic boundaries. Local partners have come together to agree this strategy and are all committed to aligning relevant actions and investment to the agreed priorities.

A number of tools and systems have been put in place to support this way of working:

❖ **Shared evidence base**, which continues to evolve and stay live, providing partners with a reliable and consistent source of quantitative and qualitative evidence to inform action and investment decisions.

❖ **Delivery and investment plans**, which set out how projects and priorities will be delivered and funded, their outcomes and how partners will be mobilised to achieve them.

❖ **A common investment prioritisation framework**, which is used to assess projects, provide transparency and ensure that all investment is focused on projects that deliver maximum impact and value for money.

❖ **A shared inclusive growth toolkit**, which provides assurance that projects are also judged consistently by their capacity to deliver positive impacts for local residents.

❖ **An annual stock-take of progress**, which will review progress and identify where changes are needed to reflect new economic or policy circumstances.

❖ **An evaluation programme**, which sets out the approach to evaluating actions and projects.

This Local Industrial Strategy does not include any 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. It will also help

Norfolk and Suffolk decide on its approach to maximising the long-term impact of the new UK Shared Prosperity Fund once its details and priorities are announced in the Spending Review.

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 Norfolk and Suffolk 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 Norfolk and Suffolk. As detailed in this Strategy, Norfolk and Suffolk will regularly review the latest evidence to continue designing the most effective approaches and interventions to be at the forefront of the future UK economy. This Strategy sets out long-term ambitions and will continue to evolve as the economy changes.

Norfolk and Suffolk local partners are committed to working with government to build more relationships and successful collaborations to create productive growth, enterprise and jobs that benefit all communities across the two counties.



Sector deals



Life Sciences: Norwich Research Park is a world-leading research base, at the forefront of global food and health research. The Quadram Institute is supporting the Sector Deal's delivery through its research creating new interfaces between food science, gut biology, human health and disease. Its clinical research facility is home to a host of research initiatives to aid the development of new treatments and improve patient care.



Automotive: Lotus recently announced the first British all-electric hypercar (Lotus Evija) will be manufactured in Hethel, Norfolk marking the start of c.£100m of investment for R&D and manufacturing. To further support the Sector Deal's delivery, Stowmarket-based EO Charging, Suffolk County Council and Bulb launched the UK's first fully open electric vehicle charging network and plans to expand across the UK and international markets are well underway.



Creative Industries: The New Anglia Creative Industries Group published a sector skills plan in February 2019 focusing on improving local career pathways, smoothing transitions to work and lifelong learning of cutting-edge local businesses and employees. Norwich University of the Arts is ranked in the world's top ten courses for games development, providing the supply and diversity of skills and talent.



Artificial Intelligence (AI): BT's global R&D headquarters at Adastral Park, Suffolk is the UK's leading patent filer for AI technologies. BT is driving AI into the global telecommunications infrastructure through the national future networks research centre and working with academia to deliver a highly skilled workforce through initiatives such as the Tommy Flowers Institute, and its new partnership with the University of Suffolk at Adastral Park.



Nuclear: Norfolk and Suffolk is using its expertise across the nuclear fuel lifecycle to reduce costs of decommissioning and the proposed costs for Sizewell C. New Anglia LEP is working closely with EDF, Nuclear AMRC and fellow nuclear clusters to submit a business case for the supply chain and productivity improvement programme. Local partners are delivering the Energy Sector Skills Plan across all forms of energy.



Construction: The Building Growth Group brings together a wide range of committed businesses and organisations to drive the delivery of sustainable economic growth in the sector, collaborate and support innovation and deliver the Construction Sector Skills Plan, working with other relevant sector groups to support a highly skilled workforce.



Aerospace: The International Aviation Academy – Norwich is supporting the provision of a highly skilled workforce and enhancing the partnership between industry, education providers and key local partners. It is addressing skills shortages across all areas of aviation in the UK and its flagship Professional Aircraft Engineering Practice degree course at City

College Norwich, validated by UEA and delivered in partnership with KLM UK Engineering, has continued to grow and built strong ties with airlines and operators providing a path to employment.



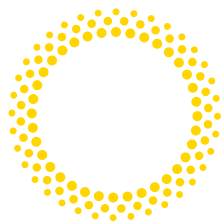
Rail: The passenger experience is being improved in Norfolk and Suffolk as a result of the significant investment awarded through the complete replacement of the region's train fleet and the introduction of faster services, as part of the £1.5bn investment made by Greater Anglia, and the £2.2bn investment awarded to Network Rail to operate, maintain and renew existing rail infrastructure.



Offshore Wind (launched in Great Yarmouth and Lowestoft): Roughly half of the Sector Deal's 30GW by 2030 ambition will be delivered off the coast of Norfolk and Suffolk, with 14.5GW in the existing pipeline. Local partners are working to support the supply chain, deliver the Sector Skills Plan to realise the forecasted 600 per cent growth in well-paid skilled work (6,150 FTEs) and meet the projected operations and maintenance opportunity worth £1.3bn per annum by 2025 in the East of England.



Tourism: Visit East of England delivers the visitor economy sector skills plan for Norfolk and Suffolk with the ambition to boost apprenticeships, grow overall value and productivity of the sector, and encourage job creation and increase skills levels, salaries and career potential. Local partners will develop a plan to attract, grow and create international business events. Given its importance to the local economy, Norfolk and Suffolk will bid to become a pilot Tourism Zone.



Norfolk
& Suffolk
Unlimited



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