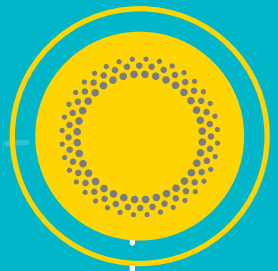
Connecting Innovation in the UK's Clean Growth Region

Norfolk & Suffolk Unlimited

46.8%
survival rate of start-ups

Planned investment
in **renewable and nuclear** power generations will make region the leading support of renewable energy to the UK, enough to power **58%** of homes

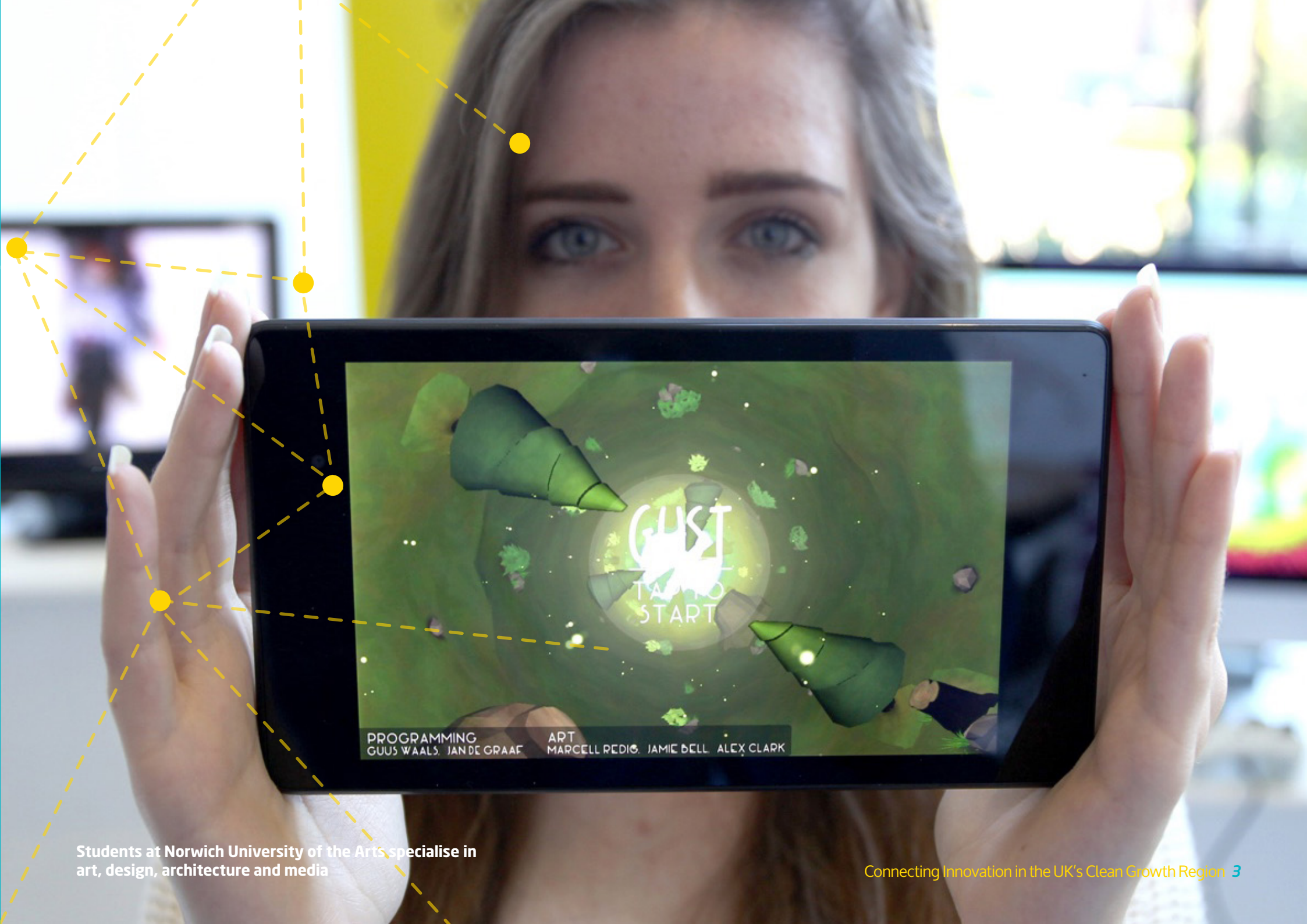


10
Space to Innovate Enterprise Zone sites

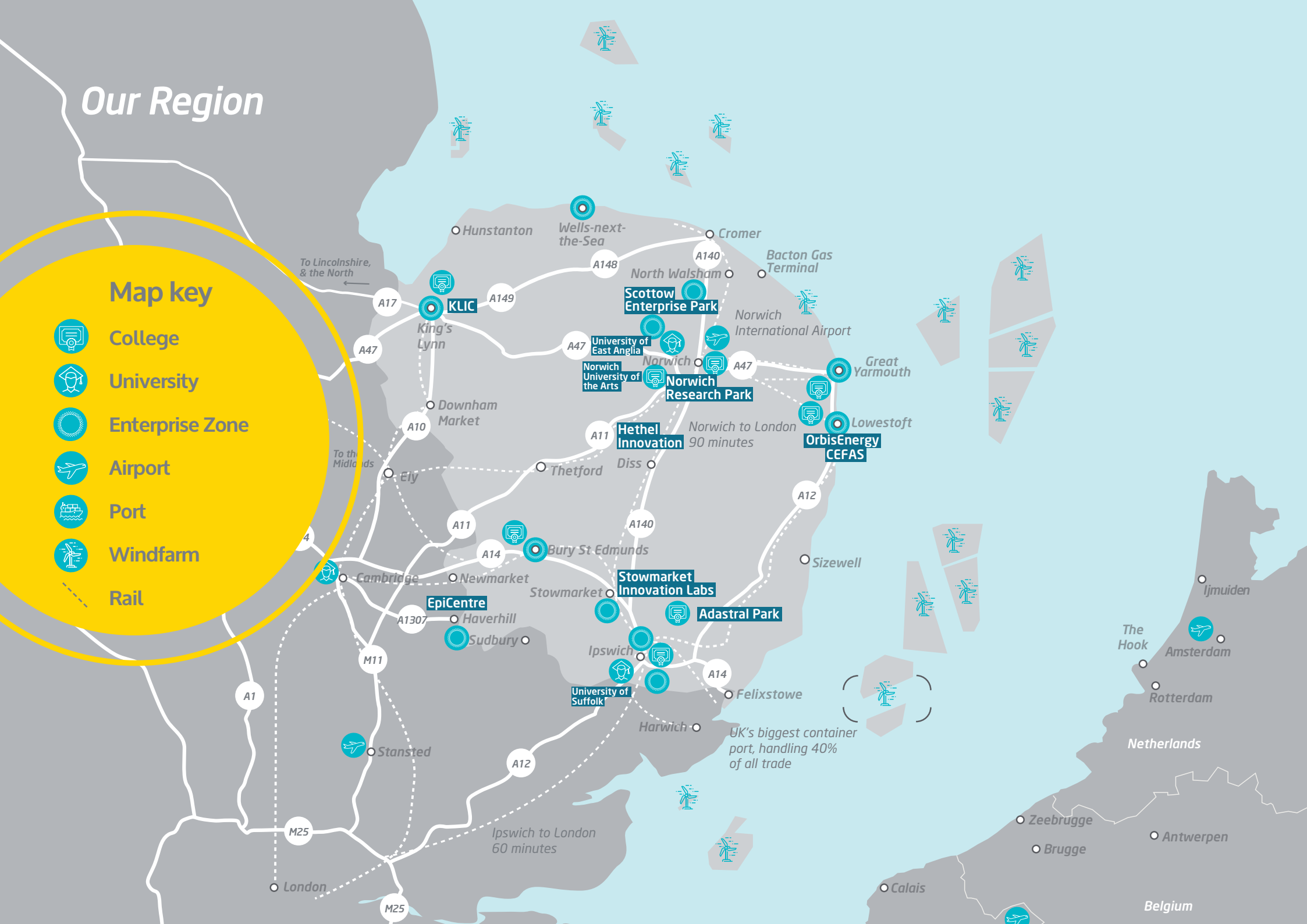
Second fastest
growth area for **high growth firms**

50% growth
in science and R&D employment since 2007, compared to **19% UK average**

£138bn capital
billion capital investment in energy and low carbon projects across East Anglia by **2050**



Students at Norwich University of the Arts specialise in art, design, architecture and media


Our Region
Map key
College
University
Enterprise Zone
Airport
Port
Windfarm
Rail
Hunstanton
Wells-next-the-Sea
Cromer
To Lincolnshire, & the North
A148
A140
North Walsham
Bacton Gas Terminal
A17
KLIC
A149
Scottow Enterprise Park
Norwich International Airport
King's Lynn
A47
University of East Anglia
Norwich
Norwich University of the Arts
Norwich Research Park
Great Yarmouth
Downham Market
A10
A11
Hethel Innovation
Norwich to London 90 minutes
Lowestoft
OrbisEnergy
CEFAS
Ely
Thetford
Diss
A12
A14
Bury St Edmunds
Sizewell
Cambridge
Newmarket
Stowmarket
Stowmarket Innovation Labs
EpiCentre
A1307
Haverhill
Adastral Park
Sudbury
Ipswich
M11
A1
University of Suffolk
Felixstowe
Harwich
UK's biggest container port, handling 40% of all trade
Stansted
Ijmuiden
The Hook
Amsterdam
Rotterdam
Netherlands
Zeebrugge
Antwerpen
Brugge
Ipswich to London 60 minutes
London
Calais
Belgium
M25

Foreword

Innovation is embedded in so many of our sectors. Science and research centres, universities and dynamic business communities are working together to deliver game-changing projects that will put us at the forefront of the drive to Net Zero. The foundations are in place here in the UK's Clean Growth Region. The challenge now being laid down to all business leaders across Norfolk & Suffolk is 'What role can you play?'

The Innovation Board aims to help tackle the four grand challenges identified in the Government's Industrial Strategy. We will do this by focusing on three high-value sectors: ICT and digital creativity, agri-food, including life sciences (particularly human, soil and plant health), clean energy production and distribution (particularly renewable supplies such as offshore wind and hydrogen). In the process, we will support associated sectors such as agri-tech, which will help to improve farming's productivity while reducing its carbon footprint.

We share the Government's ambition to spend 2.4% of GDP on R&D by 2027. Through the New Anglia Growth Hub and other partners, including our three universities, we are encouraging businesses to apply for innovation grants as well as Restart and Recovery funding.

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We are also working to support the development of innovation hubs across the region that will incubate start-ups, accelerate scale-ups and grow our innovation ecosystem.

Here you will find scientists, researchers and clinicians pushing our understanding of genetics, whether that is developing drought and disease-resistant crops or analysing viruses that threaten human health, like COVID-19. You will also find technologists developing the latest connected systems and Internet of Things applications that will support independent living, autonomous vehicles and precision farming robots. Meanwhile, in our coastal waters, we have world-leading companies building and maintaining some of the largest wind turbine arrays in the world.

Along with industry and academic partners, we are supporting projects that will deliver a better, healthier, more productive future for millions of people. They include helping people remain healthy into old age, adding life to years, not just years to life.

They are looking at how to make businesses more productive through digitisation, while improving the well-being of workers.

We are particularly keen to break down barriers between sectors and silo thinking within them. Every sector shares common challenges around things like attracting and nurturing talent, delivering clean growth, embracing digitisation, developing new markets and accessing finance. Our approach is to provide enabling infrastructure, support multi-disciplinary cooperation, encourage diversity and foster the creativity needed to solve these challenges together.

We hope you will be inspired to join us and share your ideas for using innovation to drive real change.

Johnathan Reynolds, Chair, New Anglia LEP Innovation Board

C-J Green, Chair, New Anglia LEP

"Our business and innovation ecosystem is diverse and supportive, with world-leading clusters collaborating to create a sustainable future."

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BT Adastral Park

Discover our Unlimited ambition

The roots of our region's innovation culture run deep; you could say it is in our DNA. Norfolk and Suffolk has been a source of wealth and power for centuries, with strong cultural and trading links to Europe. This made it a home for merchants and thinkers, makers and inventors – and it remains so today.

We are attracting and retaining a new generation of talented people with a passion for science, innovation and business. Our business and innovation ecosystem is diverse and supportive, with world-leading clusters collaborating to create a sustainable future.

We have strong connections with the Cambridge cluster through our Cambridge Norwich Tech Corridor initiative creating new opportunities for wider collaboration and talent attraction.

Tropic Biosciences, based on the Norwich Research Park, develop high-performing commercial varieties of tropical crops which promote cultivation efficiencies, enhance consumer health, and improve sustainable environmental practices, using cutting edge genetic editing technologies

Feeding a healthier world

Founded on decades of expertise, the Norwich Research Park is a world-leading life sciences research and development cluster. Alongside four of the UK's strategic research institutes and the University of East Anglia, there is the Norfolk and Norwich University Hospital and around 150 fast growing, high potential biotech businesses. Together they employ around 15,000 people, including more than 3,000 scientists, researchers and clinicians specialising in improving soil, plant and human health.

This community works with partners locally, nationally and globally to tackle real world problems, such as how to prevent disease wiping out vital crop species, how to help people stay healthy into old age and, increasingly, how to combat climate change.

In 2000, the UK government chose the UEA as the site for the Tyndall Centre for Climate Change Research, which brings together scientists, economists, engineers and social scientists from partner institutions. Along with our region's burgeoning renewable energy sector and expertise in technologies such as AI and machine learning, they are helping us achieve our goal of being the clean growth centre of the UK.

Connecting the world

Technological innovation comes to the fore at the globally-significant science and technology campus at **Adastral Park**, just outside Ipswich. A centre for technological research and innovation for 100 years, and at the heart of the UK's digital ecosystem for the last 45 years, it is now home to around 140 companies, 4,000 people, two research organisations and the headquarters of BT Labs, the global Research and Innovation division of BT Plc.

Applied research at BT Labs has led to the development of vital communications infrastructure, such as single mode fibre, VDSL technology and ultra-high capacity networks, including 5G.

The park's high tech business cluster – called **Innovation Martlesham** – now has around 140 companies that work either in or with the ICT/Digital sector. They range from global organisations like Cisco, Huawei and Nokia to a diverse collection of dynamic SMEs and innovative start-ups serving a multitude of sectors. In early 2021, the University of Suffolk and BT opened a **£9.6m DigiTech centre** on the park to train students, graduates, and apprentices.

Powering the world

Norfolk and Suffolk is the UK's clean growth region - the **East of England Energy Zone** has been critical to the nation's energy mix for over 50 years and is now leading the drive to Net Zero.

Our region has more installed offshore wind capacity in our coastal waters than anywhere in the UK. With plans awaiting approval for a new nuclear power station at Sizewell and Bacton gas terminal delivering 30% of the UK's gas supply, and providing vital interconnections to European markets, our energy sector has transformed Great Yarmouth and Lowestoft into a major logistics and support centre that is now serving clients in the North Sea and worldwide.

Profiles of success

Over the next 30 years, humanity must tackle the greatest challenge we have ever faced: rapid climate change, with all its consequences. It's a challenge of our own making and only we can solve it or adapt to it. We are ready to play our part in delivering Net Zero by 2050.

We have the people, the networks, the infrastructure and the ability to attract the investment needed to transform ideas into action. Meet the people and places which drive our innovation ecosystem.

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Meet our innovators

Lotus

Supercar brand Lotus calls Norfolk home. The firm's headquarters and sports car manufacturing takes place at Hethel and it has recently started production at its new plant in Norwich, where it will produce around 1,500 chassis units per year for the Lotus Elise, Exige and Evora. The Norwich site also houses the welding and fabrication of sub-frames, suspension components and other key parts for Lotus cars.

The Lotus Evija is the fastest production car in the world and exemplifies Lotus' world-class expertise in lightweight, styling, aerodynamics and handling as well as introducing new technologies that will be key to Lotus' future, such as electrification and connectivity. The pioneering BEV Hypercar will be manufactured at Lotus' Hethel facility.

Thyngs

The Thyngs technology offers cashless payments and touch-free commerce available anywhere in the world using nothing more than a mobile phone.

The firm, which has a base in Norwich, uses technology to connect any physical object to engaging digital experiences. It offers connected payments to make shopping easy and frustration-free.

Thyngs use the technologies in every smartphone to connect consumers to mobile-optimised content and commerce through fresh, exciting engagements.

Thyngs use the technologies in every smartphone to connect consumers to mobile-optimised content

Thyngs

Rainbird AI

Rainbird uses AI to support business decision-making. Rainbird's eponymous platform has been used to power chatbots, programmes which answer questions for customers online, to help people find the best bank account. The multi award-winning firm has recently created blueprints for Covid risk assessments for the NHS as well as universities and educational institutions.

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SparkEV

Data will have a key role to play in the future of mobility as the development of autonomous vehicles and other new forms of transport change the way we travel. SparkEV believes it is on the highway to success with its journey prediction system for electric vehicles, designed to address a global market that could be worth £500m by 2022. Its software uses machine learning to accurately map routes to maximise time between charges for electric vehicles, reducing anxiety for fleet managers and adding an extra 20 per cent to vehicle usage. The Newmarket company's system is already attracting plenty of interest, particularly in Scandinavian markets.

Image : SparkEV

"Data will have a key role to play in the future of mobility as the development of autonomous vehicles and other new forms of transport change the way we travel."

Cluster profiles

Norwich Research Park

On Norwich Research Park's 230ha campus, you'll find an exceptional combination of four internationally important research institutes, a major teaching hospital, a leading university and a globally–renowned centre of climate change research. They have helped attract a rapidly growing cluster of around 150 pioneering biotech, agritech and other life sciences related businesses. The Park leads the world in plant and microbial sciences and in interdisciplinary environmental science through the internationally-renowned research at the John Innes Centre and The Sainsbury Laboratory and at the University of East Anglia. It has strengths in food, diet and health at Quadram Institute and Norwich Medical School, and distinctive research expertise and facilities at the Earlham Institute and Norfolk and Norwich University Hospital.

Centre of Excellence - Norwich Research Park

David Parfrey, Executive Chair

"Our scientists and clinicians are tackling some of the greatest challenges known to humankind. Not least how do we feed a growing global population with nutritious food that enables them to lead long healthy lives, while minimising the impact of agriculture on the environment and creating a clean growth future.

"What really sets us apart as a scientific community is the breadth and depth of our research and a shared commitment to applied knowledge. We work together across disciplines to translate early stage research into social and economic benefits with real impact."

Adastral Park

Adastral Park started as BT's research and innovation campus and is now a globally-significant centre of fundamental and applied research for Information and Communications Technology (ICT). It is now home to around 140 companies, 4,000 people and two research organisations, as well as BT's global R&D laboratories. As a result, the UK government has identified the cluster as a High Potential Opportunity area for investment.

Lisa Perkins, BT's Director of Research and Applied Innovation

"Everything we now do for BT on the Park focuses on turning world-leading fundamental research into technology that serves an economic or social purpose and solves real world challenges.

"Even when we don't invent a new technology on the Park, our scientists have the skills to embrace an initial idea – such as fibre optics – and develop innovative purposes for the science – such as single mode fibre systems. We have become adept at this over the last 20 years as we leverage the fantastic range of facilities, including Europe's largest test and integration facility, to further our research and collaborations. Our situational experience labs enable us to demonstrate the art of the possible to corporate leaders and thinkers by providing an immersive experience of new technologies from across our innovation ecosystem."

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Adastral Park

OrbisEnergy

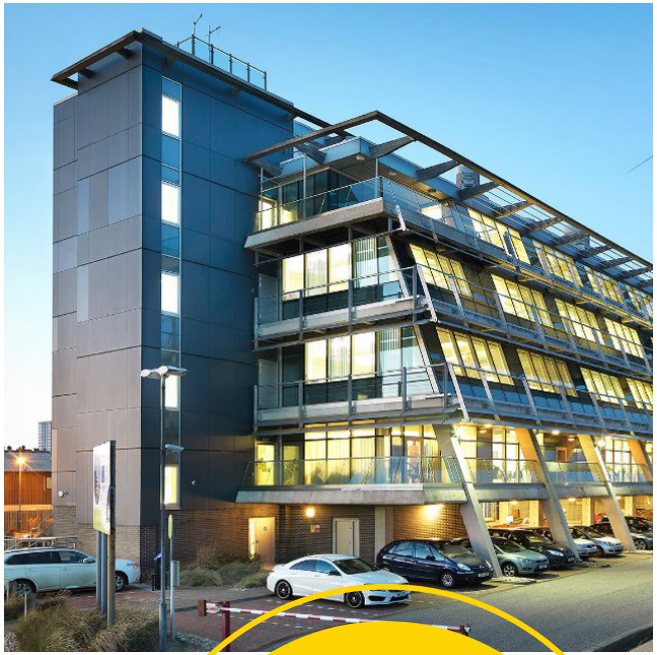
OrbisEnergy is a clean energy business hub at PowerPark in Lowestoft, on our all energy coast.

Manager Ian Pease

"The strength of our region's energy sector stems from its supply mix, generation to distribution, and the talented businesses that service it.

"OrbisEnergy stands at the heart of our clean growth community and is committed to supporting its development. Our tenants (physical and virtual) include leading energy-related companies as well as the UK's Offshore Renewable Energy Catapult (ORE) regional innovation office. Together with ORE Catapult and industry leaders, including the East of England Energy Group, we are looking to accelerate the adoption of new technologies, such as battery storage, energy integration, and carbon capture and storage.

"We are also working with local colleges to strengthen the region's engineering skills and knowledge base across energy production, conservation and efficiency. Decarbonising industry, electrifying transport, and building supporting infrastructure, could create hundreds of thousands of well-paid jobs across the UK. Our ambition is for the workforce in the East of England to fill many of them."



OrbisEnergy

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CEFAS

The UK's Centre for Environment, Fisheries and Aquaculture Science (CEFAS) employs some 400 scientists at its headquarters in Lowestoft. CEFAS conducts world-leading research into the global problems of climate change, marine litter, over-fishing and pollution. It then provides data and expert advice to policy makers in the UK government and overseas partners who are working to secure a sustainable blue future for all. CEFAS is working with local partners, including Universities, to develop a science and research campus around its base in Lowestoft.

Science Director David Carlin

"The East of England is an excellent location because of its high concentration of biotech scientists. There are nationally important clusters not just here in Lowestoft but also on the Norwich Research Park, in our successful agri-food businesses and, of course, in Cambridge. Combine that with world-leading data scientists and developers of cutting-edge digital technologies at Adastral Park, engineering at Hethel Innovation and you have an ecosystem capable of tackling global challenges, particularly the causes and effects of climate change. This clustering is vital for innovation because it enables multi-disciplinary collaborations that can turn scientific research into beneficial outcomes."

Hethel Innovation

Hethel Innovation

Hethel Innovation, based at the Hethel Engineering Centre in south Norfolk, helps SMEs across our region become more innovative, productive and competitive. An award-winning innovation hub, it has been home to more than 320 groundbreaking businesses and incubated more than 200 start-ups, creating more than 1,500 high-skilled jobs.

Executive Chair David Taitt

"Hethel Innovation's approach centres on building innovation platforms to catalyse the development of new ideas. This stems from the belief that innovation doesn't just happen but needs to be proactively driven. The team starts by identifying specific industry challenges or needs and then seeks out companies in the regional business community with the technological capabilities to create marketable solutions.

This approach involves nurturing clusters of like-minded people and leveraging knowledge and expertise to support business growth. The team actively cultivates a collaborative ecosystem of companies with a positive attitude towards working together, sharing ideas and co-creating new products and services. It is important for people joining this agile, fast-moving community to feel that the culture is a good fit for their business, adds value and will help them embrace new technologies."

Developing centres of excellence

Space to Innovate Enterprise Zones

The Space to Innovate Enterprise Zone comprises ten sites across Norfolk and Suffolk. Offering simplified planning with potential incentives available, this network of innovation hubs is generating new businesses, new jobs and exciting connections for the firms who call our Zones home. The sites are home to innovative businesses, state-of-the-art facilities and form part of our Inward Investment offer for new firms looking to expand or move to the area. Our Great Yarmouth and Lowestoft Enterprise Zone also supports the region's flourishing energy sector.

Stowmarket Innovation Labs

Conveniently situated between the Cambridge science parks and the ICT/Digital research community at Adastral Park near Ipswich, the Stowmarket Innovation Labs have rapidly become a centre for entrepreneurs interested in applied AI, gamification, virtual and augmented reality.

The Innovation Labs ecosystem now includes a number of support businesses, such as usability experts, graphic designers, coders and other industry specialists.

The EpiCentre

Conveniently located at the intersection of Cambridge, Suffolk and Essex, EpiCentre is fast becoming a destination for dynamic early-stage businesses looking for offices and lab space. The new innovation centre has quickly become home to companies in science, tech and digital space. The attraction of flexible facilities, business support and a hub that brings together like-minded individuals, is helping drive economic growth and contributing to the East of England ecosystem.

Towards a collaborative clean growth future

Businesses in Norfolk and Suffolk value professional networks such Tech East, NAAME, Agri-Tech E and EEEGR, as well as the Norfolk and Suffolk Chambers of Commerce, and encourages partnership projects that support different sectors. New Anglia Local Enterprise Partnership also works with local councils to secure government funding for economic development projects, such as the recent City and Town deals for Norwich, Ipswich, Great Yarmouth, Lowestoft and King's Lynn. These initiatives demonstrate our region's commitment to encouraging sustainable economic growth and supporting public and private sector innovation.

King's Lynn Innovation Centre

The Centre is based on one of our region's Space to Innovate Enterprise Zone sites in the Nar Ouse regeneration area. It offers state-of-the-art commercial workspace, designed to support the needs of ambitious, innovative businesses looking to grow in the local area.

Leading in public sector innovation

The recent launch of the largest public sector LoRaWAN® network in the UK, backed by Norfolk and Suffolk County Councils and New Anglia LEP, shows how local partners work together to innovate.

LoRaWAN is an enabling technology for the Internet of Things. It is free for anyone in the region to use and numerous businesses are already using it to test digital applications and getting real business benefits.


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The innovators of our success

From fundamental research, to applied thinking and skills development, our region's universities and colleges inspire each new generation.

The University of East Anglia

The University of East Anglia (UEA) has been at the heart of the region's innovation community for more than 50 years. In 2021 UEA was ranked in the Top 200 universities in the world and in the Top 25 in UK. It is also in the World Top 50 for research citations.

Professor Fiona Lettice, UEA's Pro Vice-Chancellor for Research and Innovation

> ***"We have an extraordinary depth of academic expertise across the full breadth of disciplines. This gives us the ability to bring together multi-disciplinary teams to address regional, national and international challenges, from developing agri-foods and digital technologies to creating a clean growth economy and tackling climate change.***
>
> ***"As a leading academic institution, it's vital that we conduct fundamental 'blue sky' research into ideas that don't yet have an obvious application. You have to push the boundaries of knowledge before you can understand what might even be possible. However, it is also important that we look at how we can apply that learning, the intellectual capital we are creating, to solving real-world problems and improving society."***

Students on campus at the University of East Anglia

Norwich University of the Arts

Norwich University of the Arts (NUA) has helped businesses implement design thinking for 175 years. It offers 19 undergraduate and 9 postgraduate courses specialising in art, design, architecture and media. In 2020, NUA ranked in the Top 50 Creative Media & Entertainment Schools and Colleges in the World.

Sarah Steed, NUA's Director of Innovation and Engagement

> ***"Our students learn the principles of structured design thinking and how to apply them to industrial processes and innovation. They and our lecturers work with businesses across the region, ranging from life sciences and technology to manufacturing and financial services. We not only help clients to improve their thinking around the physical design of new products, but also to develop effective communications that bring the 'how and why' of the innovation story to life.***
>
> ***"Public resistance to new ideas is often the biggest obstacle to developing and commercialising innovative products and services. It's not enough simply to have great science or clever technology; you need to be able to communicate the benefits to your public to bring them on board. By applying design principles, we can help start-ups and established organisations explore the potential pitfalls, as well as the opportunities."***

The University of Suffolk

University of Suffolk (UOS) is the region's newest university. It ranked in the top 10 for Courses and Lecturers in the WhatUni Student Choice Awards (2019).

Deputy Vice-Chancellor Professor Mohammad Dastbaz

"Education is a fundamental driver of economic and social wellbeing. We don't just equip students with knowledge; we also give them the confidence to live fulfilling lives. We aim to empower them as both professionals and individuals to make a positive impact in their work and in their community.

"As a community impact institution, it's important that we support not only the region's clean growth ambitions but also wider health and social wellbeing goals. We are proud of the fact that our courses and our governance support the UN's Sustainable Development Goals. We are also committed to using our fundamental research to support businesses in the East through an active programme of engagement."

Scientists at Quadram on the Norwich Research Park

Our region attracts world-leading scientists, groundbreaking researchers, and market-shaping entrepreneurs. Here you will find people developing collaborative ventures that translate fundamental research into commercial opportunities and use disruptive technologies to tackle some of the world's greatest challenges.

Our partners will continue to promote our region to the world, support its growing network of innovation hubs, and foster collaboration.

One way we are doing this is through our Connected Innovation initiative that will provide innovators and entrepreneurs across our region with a single online portal that enables them to engage with organisations, such as Innovate UK, the Knowledge Transfer Network and industrial Catapults. By providing businesses with timely information on funding competitions and other support programmes, we aim to accelerate the development of new products and services.

Find out more at

To find out more about locating your business in our region, please email ***inwardinvestment@newanglia.co.uk***

Norfolk & Suffolk Unlimited

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