TOGETHER,
FOR OUR FUTURE

Norfolk County Council

FURTHER AFIELD
TECHNICAL REPORT

Foreword

We are the fifth largest shire county in England, with a population of nearly 900,000; forecast to grow to more than a million by 2036. Alongside our growing population, we have a buoyant job market and high levels of employment. We're one of the largest county economies with more than 37,000 businesses, 348,000 jobs worth £18 billion – and a net contributor to the UK economy.

Growing populations and economies mean our County's city, towns and villages are increasing in size to create new communities for the future. There are plans to build more than 80,000 homes over the next 20 years, and Norfolk is fortunate to have enough space to accommodate both new housing and commercial growth.

We are all proud of our unique environment, identity, heritage and assets. And we all share that same ambition to see Norfolk succeed. We see it as our responsibility to create a plan that matches our collective ambition to ensure our communities grow, thrive and prosper for the future. There are challenges ahead, not just for the County Council, but for all of us. More than ever, we need to work better together for the greater good. We need vision and leadership to strive to improve, otherwise we risk falling behind the rest of the country.

Norfolk's success in the future is predicated on our infrastructure needs while protecting our special environment. We need to build an inclusive society, with engaged citizens, so we are ready to be tomorrow's economy.

We need to act today to create a successful county for now and the future.

Andrew Proctor
Executive Leader of Norfolk County Council

Preface

Norfolk's economy today is extremely diverse ranging from tourism, modern agriculture, research as well as host to the largest offshore wind turbine array in the world.

To understand what we collectively need to do to sustain a successful County for the future we have carried out an extensive review of the trends and drivers that might impact upon Norfolk over the next 20 years. We undertook this work using well tested foresight approaches, best evidence and engagement with experts such as the Royal Society of Arts, Aviva and the UK Government Foresight teams.

Our County has experienced a great deal of change and our work, highlighted in this report, shows that ever more radical change is coming. The way our economy functions will change. A rapidly ageing population, technologies that bridge the rural productivity gap, a more varied climate with hotter summers and wetter winters will all require careful planning. We must embrace these changes to ensure Norfolk is a place of success, for all of us.

These changes will be as profound as drainage ditches, tractors, or mobile phones were to our forebears. This work affirms that we need to be ever more strategic, work together to common goals and act now for future generations.

Fiona McDiarmid
Executive Director Strategy & Governance

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TOGETHER,
FOR OUR FUTURE

Executive Summary

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Norfolk faces rapid change over the next 20 years, from the way we work, the changing climate, or where and how we build new homes. We need to work together now, to ensure a prosperous and sustainable future.

Norfolk County Council has carried out research into a range of issues that are likely to affect the County in the future and this is the executive summary of our findings to help stakeholders plan. There are four key themes to address:

01 Environment and Infrastructure

02 Future of Society

03 Jobs, Industry and Technology

04 Community Empowerment

Summary

OUR STATEMENT OF INTENT
Norfolk is a brilliant place to live and work. There is a beautiful coast and countryside, a wealth of history, vibrant communities and culture and cutting-edge research and industries.

We all want to create a sustainable, prosperous future, with a more inclusive economy that creates opportunities for all.

The future brings challenges as well as opportunities. Issues like an ageing population, climate change and increased automation mean that we cannot afford to stand still. By looking ahead and understanding these issues, we can work collaboratively on a bold and collective response.

This report shows us some key areas to work on. We will agree some early actions at our summit and pledge to work together, for our future.

To embed the findings of this work into Norfolk County Council working practice and strategy development, we have looked at work that is already happening under each theme, and where we could potentially boost this further this to future proof council services.

01 ENVIRONMENT AND INFRASTRUCTURE
Climate change and poor infrastructure are key risks to sustaining and growing the Norfolk economy over the next 20 years.

In April 2019, Norfolk County Council passed a motion recognising the serious impact around climate change and environmental degradation, and the need for urgent action. The Council committed to respond to the challenges presented in DEFRA's 'A Green Future: Our 25 Year Plan to improve the Environment', in addition to the responding the emerging views on global warming presented by the United Nations.

This resulted in the formal adoption of a new Environmental Policy at Full Council in November 2019, which committed the Council to achieving net zero carbon emissions on its estates by 2030 and working towards 'carbon neutrality' across the county by the same date.

Opportunities exist for greater partnership working to address climate change, within the local authority family and the wider public sector. This could build on existing structures such as the Norfolk Resilience Forum and Norfolk Waste Partnership. The Economic Strategy for Norfolk and Suffolk provides a whole-County view of required infrastructure. Future iterations of the strategy need to ensure it is aligned to future needs.

WHAT WE NEED TO DO, TOGETHER...
We need to pursue a County wide approach to our environmental resilience and agree a combined position for infrastructure investment. If, done in isolation, this will lead to poor outcomes for the most vulnerable members of our society.

02 FUTURE OF SOCIETY

In Norfolk, key risks affecting societal cohesion in the future are: changing demographics, the rural/urban divide and inequality of opportunities for its residents. To mitigate for this, the Council is aiming to put social inclusion at the heart of everything it does.

Norfolk County Council's 6 year-business plan, Together, for Norfolk, and the local authority coalition on inclusive growth focuses on opening up opportunity for all.

Together, for Norfolk, sets out a clear ambition; for our County to be a place where we all have the chance to contribute to and benefit from economic growth and regeneration and where any of us can access the education we want, develop the skills we need and gain the employment we seek.

The focus on Inclusive Growth brings together our wish to strengthen and grow the economy, taking into account not only economic prosperity, but also a wider set of objectives that benefit society as a whole – such as health and wellbeing, inclusion and equality, environmental resilience and affordable and connected places.

By working closely together with the Chief Executives and Leaders of all of Norfolk's Councils, and other key partners, we will ensure a more joined up agenda across councils, communities, employers and professions with a shared vision to improve social mobility.

Emerging Inclusive Growth themes and priorities have included improving educational attainment, employment opportunities and career pathways, adult skills, widening participation in higher education, affordable housing, social value procurement, and connectivity. Norfolk's prioritisation of inclusive growth and the collaborative approach to address the issues, puts it in the vanguard of shire counties, as most work is currently being conducted in metropolitan areas.

We also need to engage more proactively with other areas with similar challenges. This will strengthen our voice in central government through mechanisms such as the fair funding review and through organisations like the Local Government Association, the County Council Network and the Rural Services Network.

WHAT WE NEED TO DO, TOGETHER...

Collectively, we need to act on the most pressing challenges and aim to **increase the life chances of our residents** so that all may enjoy equality of opportunity.

We need to create a **new 'rural deal'**, or large parts of the County may become unproductive and unliveable except to the richest in our society.

03 JOBS, INDUSTRY AND TECHNOLOGY

The County needs a joint effort on how to respond to future technology and how our residents and workforces upskill to meet the future need. Norfolk County Council's Information Management Team is leading the development of a 10-year technology roadmap for the Council. We face big challenges and potential opportunities from advances in technology, such as increased automation and digitisation of services, the rise of artificial intelligence and the Internet of Things (IoT). A technology roadmap offers Norfolk a chance to embrace the opportunities that digital, data and technology bring and will act as an enabler to doing things differently, delivering more efficient services and improving outcomes for citizens.

A technology roadmap is a document that outlines how an organisation plans to reach short-term and long-term goals through technological solutions. It maps out the technology that an organisation currently has and what they will need in the future. A technology roadmap will help Norfolk County Council understand how technology will support its corporate strategy. It will document the strategic direction we wish to take and coherently describe the technology required to deliver our services. It will allow us to align better with our strategic partners, to the benefit of Norfolk citizens. And, finally, it allows us to be prepared for the speed at which the emerging technology landscape changes by continually refreshing and reviewing the roadmap, in collaboration with our strategic partners.

WHAT WE NEED TO DO, TOGETHER...

Investment in technology such as IoT, autonomous vehicles and ubiquitous high speed broadband will enable people to live in our villages and towns but still contribute to the emerging economies, and encourage our young people to stay.

Investment in our workforce will mean people have the right skills for emerging jobs. Technology can automate repetitive and dangerous jobs and boost productivity, but learning new skills is key if people are to adapt. The education sector will need to work closely with business to provide the skills of the future.

04 COMMUNITY EMPOWERMENT

Norfolk County Council needs to continue to invest in community cohesion and empowerment to ensure that the fabric of communities is strengthened, reducing demand for council services. Building on existing work the Council has set up a capital fund to invest in social infrastructure and will be inviting applications from the voluntary sector.

In addition, Norfolk County Council is developing a Prevention and a Communities Strategy. Both will set out innovations as to how to strengthen and empower communities to help keep older people at home for longer, enjoying a greater quality of life.

Lastly, Norfolk County Council is co-investing with partners in developing a single information, advice and guidance service to ensure that people find community activities easy to find and access.

Norfolk County Council will examine the best way to work with, engage and consult the people of Norfolk.

WHAT WE NEED TO DO, TOGETHER...

With increasing interest in local decision making by residents, there are actions we can take together to empower communities, and actions local communities can take to empower themselves.

What is Further Afield?

Norfolk is changing in rapid and profound ways. The County stands on the brink of an economic future dominated by new technologies and exciting new industries. We will be working in new ways and will need to develop different skills. Many of us will be working into older age and we want to find new ways to live healthily and happily for longer than previous generations.

Norfolk in the future will alter the demand and type of services provided by Norfolk County Council, as well as how these will be delivered. It is therefore vital for us to understand these changes so that we can ensure the Council is fit for purpose in the future.

To prepare for what the County will be like in the future, the council has undertaken a strategic foresight project called Further Afield, looking at the likely trends and issues affecting Norfolk over the next 20 years.

This will help identify the long-term issues and challenges shaping the future of the County, and the potential implications for policy development and service transformation.

In the last few decades, foresight techniques have increasingly been used to develop public policy and business strategy. For example, the UK's Ministry of Defence has successfully used foresight techniques for some time, and this has now been rolled out across the UK Government with the development of a Futures Toolkit.[19]

Commercial companies also use foresight to support strategic management and identify new profitable business areas. Corporates such as BT and Aviva use their foresight expertise in their long-term planning as standard.

Further Afield set out to answer two central questions: how can the Council plan better for residents and how can we ensure that the Council is sustainable now and in the future. The work aimed to create a tool for the Council's senior leaders to use when making strategic decisions on the biggest challenges for the Council to 2040 to ensure robust, future-proofed decision making.

Strategic Foresight is a range of practices, methods, tools and techniques that help organisations actively explore, shape and manage the future. This includes understanding key drivers of change, possible projections into the future, and the implications of change on specific businesses, projects or contexts.

Foresight activities are not intended to predict the future with complete accuracy. Rather, they enable practitioners to explore plausible futures (plural), informed by current trends and trajectories as well as emergent signals of change.

Arup, 2019[18]

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[18] https://www.arup.com/perspectives/publications/research/section/an-introduction-to-corporate-foresight
[19] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/674209/futures-toolkit-edition-1.pdf

Our Approach

Norfolk County Council is taking a new approach to developing its strategic plans and frameworks. The Council is looking further ahead at the trends and patterns that will shape lives in the long term, driven by the need to ensure services are fit for purpose in the future and are efficiently delivered. Norfolk County Council is pioneering the use of futures studies in local government to analyse the sources, patterns and causes of change and stability in an attempt to develop a strategic foresight.

The Council has, of course, previously considered long term trends affecting its services, finances and delivery, but it has not done this in a systemic fashion or examined how future trends intersect.

As this is new territory for the County Council, the process has been carried out in an open way, engaging broadly with stakeholders, experts and those who currently use foresight in their planning processes.

In developing this project, Norfolk County Council used the best practice **UK Government's Futures Toolkit**, which was developed by The Government Office-for Science. This toolkit presents a number of methods that can be used to think in an evidenced based, systematic way about the future. A small project team from the Strategy and Governance Department was commissioned to undertake this work.
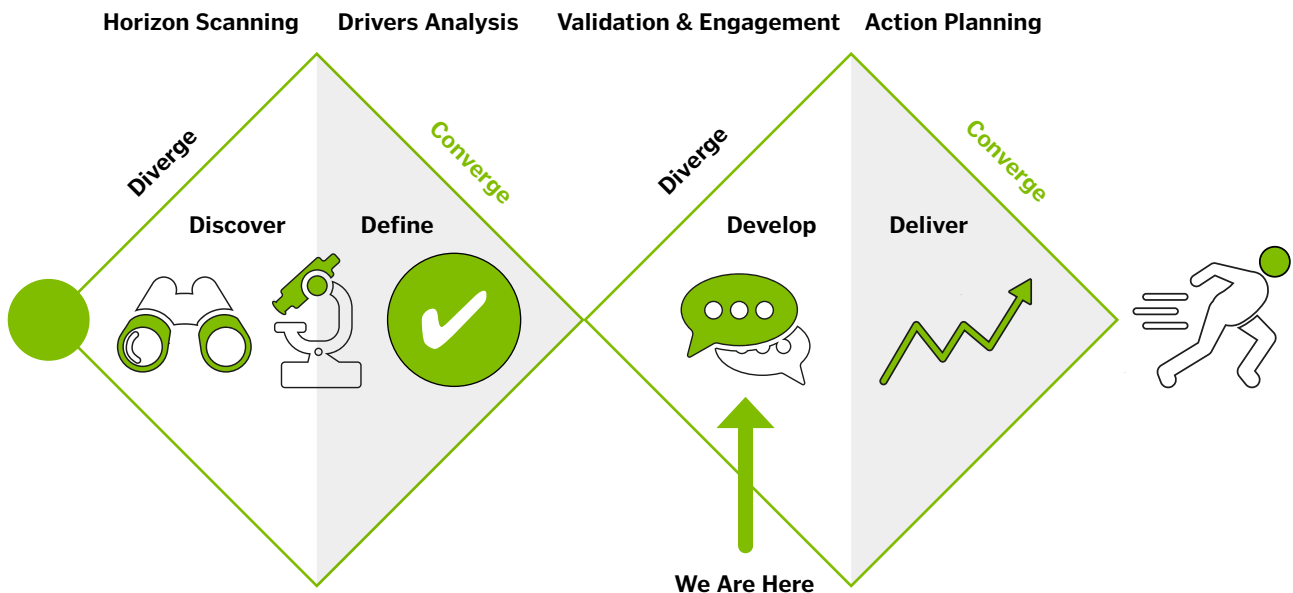
Horizon Scanning

Initially the project team undertook **horizon scanning** to gather intelligence about the future. This process looks for early warning signs of change in policy and strategy through desk-based research, pulling together news articles, academic papers, published studies, think pieces etc that might have an impact on the future of Norfolk. This threw up over 230 issues which were then grouped into themes for further discussion and analysis.

Drivers Analysis

Once loosely grouped, a workshop was held to identify the key drivers of change. These were identified as:

- **Demographic change**
  – Norfolk's people will be older than other comparable counties and will see a reducing tax base and increasing demand on services. Our young population (0-16) will only grow by 1.4% over the next 20 years,[20] whilst those aged between 65 to 84 will increase 29%, and those over 85 will increase by 96%.

- **Our local environment and infrastructure**
  – Norfolk's infrastructure is at risk of obsolescence due to less investment and a changing climate that will bring sea level rise and drought, affecting it's resilience.

- **How we grow our food**
  – climate change and population growth will stress the global food system. Norfolk is world leading in agriculture and crop science. And we are well placed to respond to global demand.

- **How we work**
  – 30% of jobs could be automated in the next 20 years[21] and societal changes such as ageing, changing employment types and new attitudes to work require change to how we work.

- **Inequality and polarisation**
  – inequality in Norfolk is driven by 4 things: intergenerational fairness; poor social mobility; a growing urban and rural split; and digital divide on connectivity and skills.

- **What technology we will use**
  – Technology is advancing rapidly in several fields and we don't have a clear roadmap of where and how we should invest over the next 10 years. We have a real opportunity to make savings and create better services.

- **How we fund local government**
  – With ongoing moves to local taxation paying for local services, Norfolk is facing a challenge due to a low business base and low house values. We should explore what this means over the long term and plan now.

- **Societal norms are changing**
  – There are a number of issues such as employment, pensions and home ownership that are disrupting the way society interacts. While these seem nebulous, declining trust and cooperation affects service delivery.

- **How local government is delivered**
  – With a generally declining voter turnout and a reducing available Councillor cohort, it is now time to bolster other approaches to democratic engagement such as citizen juries and e-voting.

- **Global pressures beyond our control**
  – Climate change, global trade and migration will affect Norfolk and we do not have the levers to respond locally. We need to understand the challenges and opportunities and lobby in our favour.

[20] NCC analysis of ONS population projections https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/annualmidyearpopulationestimates/mid2017

[21] https://www.pwc.co.uk/services/economics-policy/insights/the-impact-of-automation-on-jobs.html

Validation and Engagement

STEP 1

The work undertaken to date was shared internally and externally to start to validate the initial research. This included presenting this work externally to Norfolk local authority Chief Executives and Leaders; consulting with Aviva's Futures Team; holding a workshop with the UK Government Futures Network Heads of Horizon Scanning; and holding an RSA Fellows event. Internally at this stage we engaged with County Leadership Group and held a lunchtime session for staff.

STEP 2

We also carried out a survey of over 200 futurists to garner views on the drivers we had identified. Of those who responded, 85% agreed with the drivers chosen.[22] Of these drivers, demographics was considered to be the key consideration. But some considered that more weight needed to be placed on climate change and environmental issues. For example, one respondent said:

"No one is taking environment changes seriously enough... it is time for a holistic look at Norfolk's environment and not a piecemeal approach to sustainability."
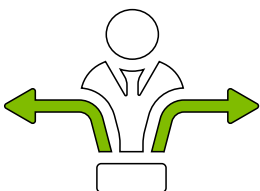
STEP 3

As well as consulting widely about the research, we also engaged on the resulting conclusions in our themes, both within the County Council and with external organisations. This included the Norfolk's Youth Parliament, UK Government Futures Network, the Aviva Futures Team and the RSA, as well as Community and Environmental Services extended leadership team and commissioners in Adult Social Care. Various methods were used to present the data including questionnaires, presentations and discussion groups.

Comments were wide ranging, reflecting the breadth of the work undertaken, and ranged from political engagement, growth, Norfolk's identity, and the future of jobs and work.

Further feedback said that the complexity of trying to understand interrelationships between 10 drivers was difficult. One survey respondent said:

"The drivers listed appear to be very cross cutting and some are unclear."

As a result, we have further grouped the work around 4 themes:

- **Environment and Infrastructure**

- **The Future of Society**

- **Jobs, Industry and Technology**

- **Community Empowerment**

The work has helped us to look to a wider evidence base and over a greater timescale, which will make our decision making stronger within the council. A key example of this is the adoption of inclusive growth as a key priority for the Council, driven by thinking about what happens if inequality increases further.

The County Council commissioned M E L Research[23] to carry out qualitative research with Norfolk residents in the form of a survey and Ipsos Mori[24] to run a series of focus groups. The research forms part of the Council's work to improve its understanding of residents' perceptions of life in the county, both present and future. Residents who were surveyed wanted the council to focus on supporting people with disabilities, protecting and improving the local environment, and supporting older people to live independently over the next 5 years.
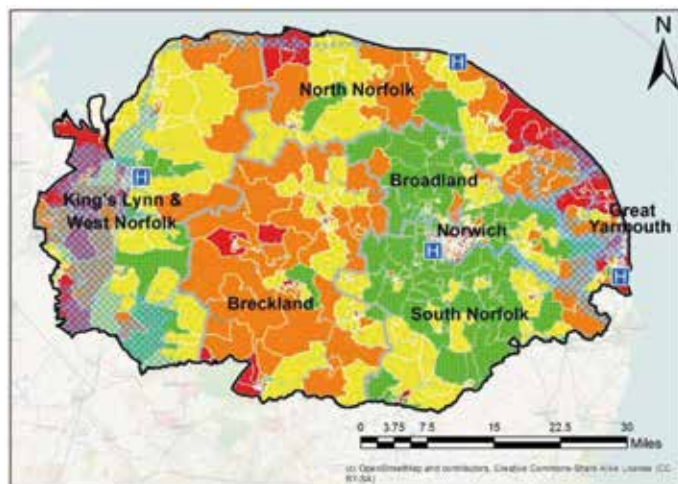
Our Findings

Environment and Infrastructure

Norfolk is the fifth largest shire county in England with a population of more than 900,000[25] – forecast to grow to more than a million by 2036, half of which live in rural areas, half in urban. The county has 6,222 miles of road,[26] and over 90 miles of coastline at high tide,[27] and has 1 city, 29 market towns and 650 villages.

Norfolk's environmental and infrastructure resilience is faced with increasing challenges. Extreme weather events and climate change have – and will continue – to challenge our infrastructure leading to more regular flooding and greater coastal erosion. At the same time new and future technologies such as driverless cars and 5G Networks can close the gap between rural and urban economies and could prove to be real drivers of the Norfolk economy.

Without doubt, climate change over the next 20 years will have a big impact upon the County. Met office research shows that Norfolk will have some of the biggest rises in temperature nationally,[28] leading to increased water shortages in the summer, and greater coastal flooding in winter with sea level rise affecting key urban areas.

Marshlands around North Norfolk may disappear by 2040 due to sea water level rise.[29] Long term flood mapping[30] by the Environment Agency shows that large parts of Norfolk are at risk flood risk from sea ingress, with King's Lynn, North Norfolk and Great Yarmouth greatly affected.

The map[31] opposite shows social vulnerability to flooding (shown in red) where people are likely to already suffer from deprivation and therefore be less resilient to external events.

As climate changes stresses the County, the response of residents will also be important to understand. Migration from flooded areas and grassroots responses to the perceived or real failure of local, national and global policy will become a point of conflict to the affected.

Offsetting climate stress will be some of the technological changes which are expected to become reality in the next 20 years. The roll out of 5G in Norfolk could do much to address and mitigate rural disadvantage, enabling better communications, greater use of networked technology and autonomous vehicles and on-demand responsive transport. Work to trial and test this new technology could be carried out in the County, if we invest now in being at the forefront of technological developments.

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Hospitals
Flood Zone

Vulnerability Ranking
Low Vulnerability
Low-Moderate Vulnerability
Moderate-High Vulnerability
High Vulnerability

25 https://www.norfolkinsight.org.uk/population/report/view/ece628a76c854c31a741de0fcaec0a0e/E10000020/
26 RDL0102 Road length (miles) by road type and local authority in Great Britain, Department for Transport
27 www.visitnorfolk.co.uk
28 https://www.metoffice.gov.uk/research/approach/collaboration/ukcp/land-projection-maps
29 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/663885/Future_of_the_sea_-_sea_level_rise.pdf
30 https://flood-warning-information.service.gov.uk/long-term-flood-risk/map
31 Jones (2016) UEA

13

"We need to promote Norfolk as a place for innovation to attract younger people to set up and run their own businesses," RSA Fellow, Further Afield event, January 2019.

The Local Enterprise Partnership (LEP) is forecasting that the demand for housing will have grown by 22%[32] in 2040 further exacerbating the pressure on land and housing supply. Currently we are only building 80% of the houses currently needed. And houses are increasingly becoming less affordable for Norfolk residents. The ratio of median house price to median gross annual earnings in Norfolk has increased since 2002 to 7.4[33] but remains below national and regional averages. In absolute terms the median house price has risen from £89,560 in 2002 to £195,846 in 2016.[34]
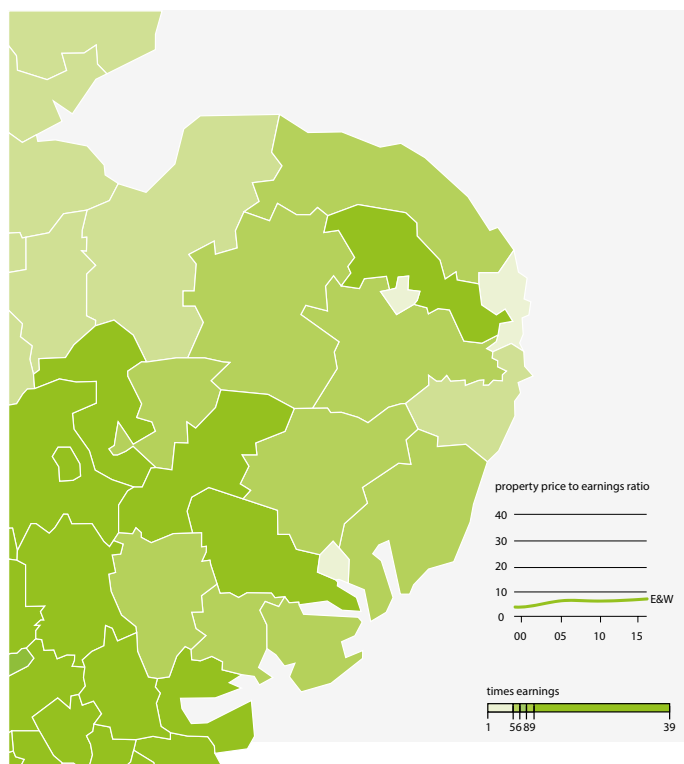
There is ongoing pressure on agricultural land to be used for housing. With agriculture at the heart of Norfolk's identity, this could pose real challenge to much of Norfolk's uniqueness. Embracing new agricultural technology and farming practices such as vertical farms, sensors and advances in crop development will create new opportunities for the Counties' farmers.

"Norfolk's identity as a rural, farming county should be recognised and how changes to smart, technological farming could affect this," Further Afield survey respondent.

Recent investment has and will continue to improve our road, rail and digital networks. This is particularly important given the County's dispersed geography. But we can go further and faster. Many of the area's businesses rely on mobile and broadband connectivity and increasingly more will do so as patterns of home and remote working and networked businesses grow. Now 93.3% of businesses and people can access superfast broadband that is more than 30 Mbps as opposed to 97.3% in London.[35]

property price to earnings ratio

40
30
20
10   E&W
0
   00   05   10   15

times earnings

1   56 89   39

[32] https://newanglia.co.uk/wp-content/uploads/2017/12/2017-12-05-FINAL-Economic-Evidence-Report-single-pages-HighRes.pdf
[33] https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets ratioofhousepricetoresidencebasedearningslowerquartileandmedian
[34] https://www.ons.gov.uk/economy/inflationandpriceindices/bulletins/housepriceindex/january2019
[35] Local Broadband Information https://labs.thinkbroadband.com

"Infrastructure, schools, hospitals, sewerage – they're near capacity already, with more houses… it's things like that that you don't see, you don't think about. But these are extra problems above the raw figures," Broadland resident in Ipsos Mori focus group.

Boosting our infrastructure is central to delivering all of our ambitions. Our priority places are interconnected, dependent on transport links and draw on many of the same labour markets and supply chains.

If we want the best infrastructure and a resilience to a changing climate, we need to work together to understand our requirements in a detailed way, lobby for investment and take action locally.

THREATS

Climate change combined with a lack of modern, resilient infrastructure could have a profound impact upon the county. This will reduce the economic productivity of the County further and leave areas of the County already stressed through poor social mobility with increased challenges.

OPPORTUNITIES

The opportunity of a county wide approach to our environmental resilience and infrastructure development could offset rural disadvantage. This is an exciting time for agile, low cost technology that could have a positive impact upon rural counties and we need to plan, invest and lobby together to ensure we have the best deal.

CASE STUDY:
SCOTLAND TRIALLING SELF-DRIVING BUSES[36]

Scotland is to trial Europe's first full-sized self-driving buses in a pilot during 2020. The five single-decker vehicles will each be capable of carrying up to 42 people and are expected to transport around 10,000 passengers a week over the Forth Road Bridge.

Plans for the bus service to begin operating with fare-paying passengers are still on target, with passengers expected to be using the buses as early as the second half of 2020.

The single deck buses will travel mostly on the motorway controlled by Transport Scotland and will cross the Forth Road Bridge. Services will run for 14 miles for the duration of the trial of the technology and will be able to travel at speeds of up to 50mph, all while negotiating junctions, bus stops and other road users.

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[36] https://www.thecourier.co.uk/fp/news/local/fife/1020384/driverless-buses-set-to-travel-to-and-from-fife-via-the-forth-road-bridge/
https://www.edinburghnews.scotsman.com/news/traffic-and-travel/autonomous-buses-across-forth-will-be-open-fare-paying-customers-mid-2020-1351941

CASE STUDY: JAPAN'S AUTONOMOUS VEHICLES FOR RURAL MOBILITY[37]

'Japan realised early on the potential of autonomous driving for transforming rural mobility. Several initiatives in Japan are looking into this area. SB Drive Corp. – a joint venture between SoftBank and Advanced Smart Mobility Co. Ltd. – is currently engaged in a government-backed project to trial autonomous buses in several local areas in Nagano, Fukuoka and Tottori. The self-driving vehicles, which can carry 11 or more passengers at speeds in excess of 20 km/h, are based on the existing Hino Liesse step-floor minibus and use cameras to recognize traffic lanes and obstacles, as well as featuring radars and control units for steering and acceleration. SB Drive Corp. expects to introduce self-driving vehicles in local bus networks by 2020, focusing particularly on routes that currently run at a loss.'

(From Roland Berger Focus Report Reconnecting the Rural: Autonomous driving as a solution for rural mobility)

CASE STUDY:
HOMES FOR WELLS

Community Land Trusts (CLTs) are gaining focus across the UK, Homes for Wells provides a good example of creating housing in areas of difficult affordability and more deprived locations. With less central government funding CLT's provide a way of communities delivering their own services, housing, pubs, community enterprises.

Formed over 10 years ago, Homes for Wells[38] CLT has housed 30 families of key workers who were finding it hard to keep up with the local housing market. Hailed as an early adopter of community-led housing, Homes for Wells has received national recognition for their innovative projects. Through a determination to succeed and a commitment to the local community, residents were able to successfully transform the lives of workers in Wells that would have otherwise been forced to relocate.

[37] https://www.rolandberger.com/publications/publication_pdf/roland_berger_reconnecting_the_rural_1.pdf
[38] https://homesforwells.com/

The Future of Society

Locally and globally, society is under pressure as it deals with issues such as widening inequality and resource challenges. In Norfolk there are 3 primary factors affecting society now and in the future: changing demographics; the urban/rural split and inequalities of opportunity and resources.

Over the next 20 years the population of Norfolk will increase by 15% to over a million people.

Of this new growth there will be a 96% increase in the number of over 85s, a 29% increase in the number of 65 to 84-year olds, and only a 1.4% increase in the number of children and young people under 15-years old[39]. This provides challenges to the ratios of working age adults to older people, and the numbers of young people sustaining the workforce.

This chart shows clearly the growth in the number of over 90's forecast for the next 20 years in Norfolk.

Over 90's
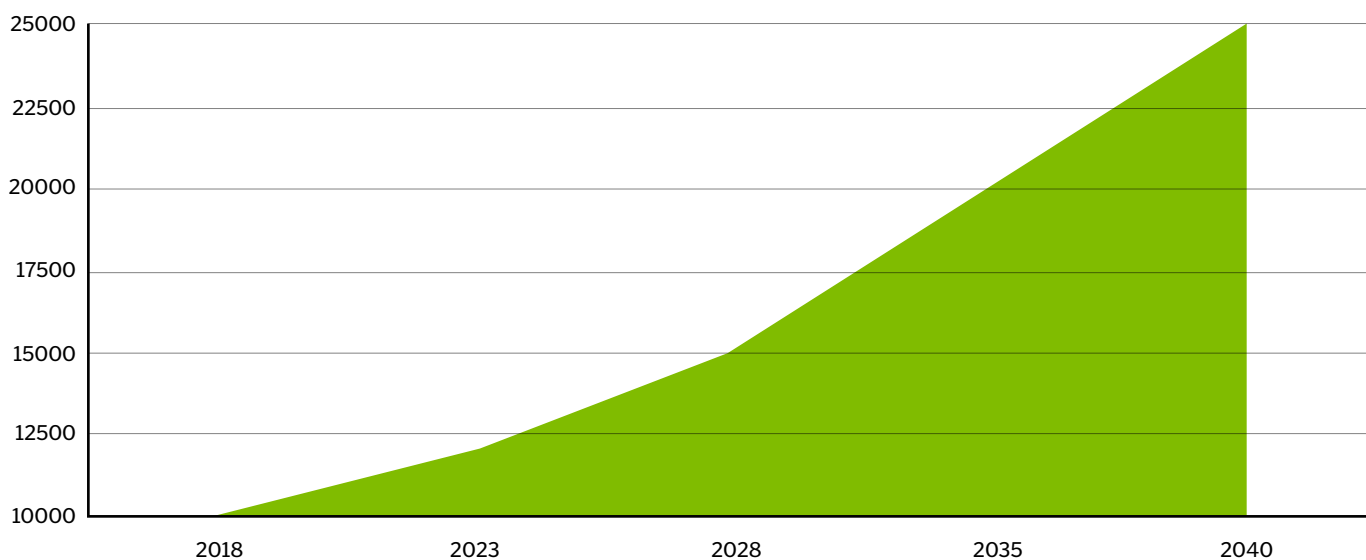
The productivity and success of the Norfolk economy will therefore be increasingly tied to the productivity and success of its ageing workforce. Encouraging older people to remain in work will help society to support growing numbers of dependants while providing individuals with the financial and mental resources needed for longer periods of retirement. The employment rate currently declines from 86% for 50 year olds, to 65% for 60 year olds and 31% for 65 year olds[40].

"If Norfolk has an ageing population, the Council need to look at what percentage in this area is elderly and fund that appropriately," North Norfolk resident in Ipsos Mori focus group.

The change in the age profile also makes health inequalities more pronounced. The years people spend as healthy is dramatically different across different locations, and a reduced life expectancy is correlated to increased levels of deprivation.

Approximately half of Norfolk's population live in urban areas and half in rural[41]. But over 60% of our 65+ population live in rural areas, providing challenges to delivery of services. Urbanisation is a global trend with 68% of the world's population due to live in an urban area by 2050[42]. This is mirrored locally with, for example, over 75% of new jobs in Norfolk over the next 20 years forecast to be in the greater Norwich area[43].

More people choosing to live in urban areas, it can lead to fewer services can be offered in rural places. A recent report[44] shows that in King's Lynn and West Norfolk, 84 villages are judged as "unsustainable" by planners, meaning local amenities of community life such as shops, post offices and pubs cannot be sustained. Similarly in North Norfolk, 62 villages are thought to be unsustainable while in South Norfolk the number is 37. As amenities are lost from small towns and villages, vulnerable people become more isolated and disconnected from their communities. Ideas such as giving entire market towns enterprise zone status, or allowing a town to invest in its own future, seek to mitigate these changes.

This issue will continue if current trends remain, and provides a challenge to the County. Additionally, disconnected areas of the County have hidden pockets of deprivation and poor social mobility, which is compounded by a reduction in services such as public transport.

We need to spread growth beyond Norwich. The City Council is currently promoting the city centre market and the County Council should do something similar for the market and coastal towns," RSA Fellow, Further Afield event, January 2019.

[40] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/264899/older-work-ers-statistical-information-booklet-2013.pdf

[41] https://www.norfolk.gov.uk/-/media/norfolk/downloads/what-we-do-and-how-we-work/policy-performance-and-partnerships/policies-and-strategies/business/norfolk-rural-development-strategy-2013-20.pdf?la=en

[42] https://www.un.org/development/desa/en/news/population/2018-revision-of-world-urbanization-prospects.html

[43] https://norfolk.citizenspace.com/consultation/norfolk-strategic-framework/user_uploads/4.-projections-of-growth.pdf
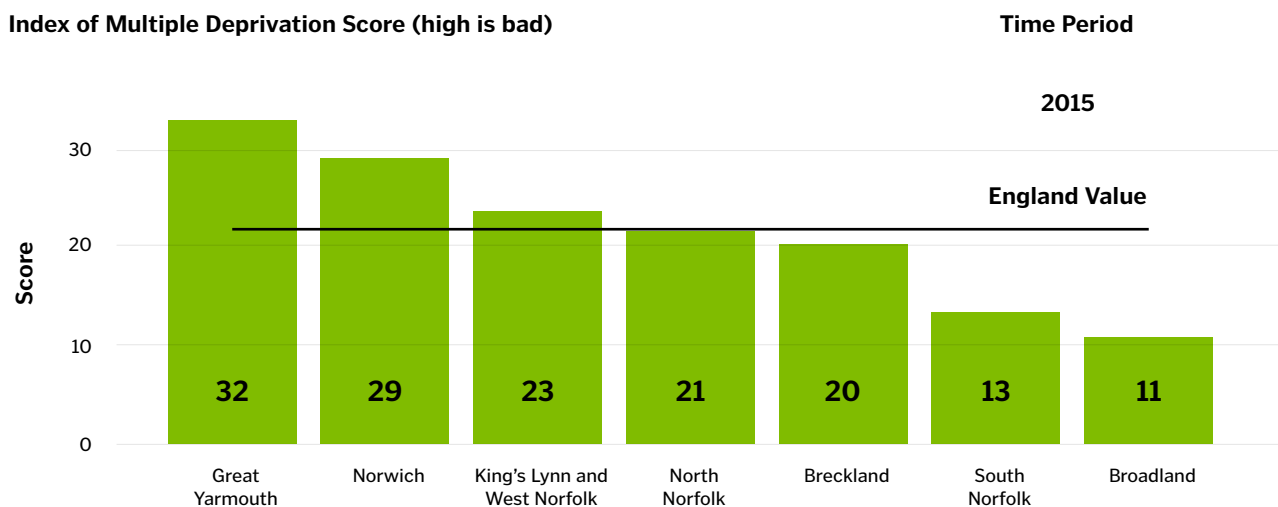
[44] Sustainable Villages, CLA 2018 https://www.ca.org.uk/sites/default/files/FINAL_CLA%20StrongFoundations%20Sustaina-ble%20Villages%20lo%20res.pdf

In Norfolk more than 120,000 people live in areas categorised as being in the most deprived 20% in England. The County suffers from poor social mobility with most districts in the bottom 10% of social mobility indicators. Skills levels is one area, which shows how Norfolk is lagging behind the rest of the country. There is a 10% gap between Norfolk and the national average at Level 4 (HNC) and above,[46] and this feeds through to wage rates with a £2730 gap between local average wages and national averages.[46]

As an example, the chart below shows the Index of Multiple Deprivation Score by District Council in 2015.[47]

Deprivation leads to poorer outcomes on almost every measure. If the most deprived experienced the same rates as the least deprived, there would be over 3,000 fewer violent events per year in the County.[48] The graph on page 21 shows how poor outcomes cluster with deprivation, where the relative gap between most and least deprived is represented on the vertical axis and the size of the dot represents the numbers of people affected.

Index of Multiple Deprivation Score (high is bad)

Time Period

2015

England Value

	Great Yarmouth	Norwich	King's Lynn and West Norfolk	North Norfolk	Breckland	South Norfolk	Broadland
Score	32	29	23	21	20	13	11

KS1 cyclists and pedestrian 9 people

Early deaths due to circultory conditions 57 people

Early deaths due to cancer 67 people

Teenage pregnancy 81 girls

Preventable mortality 176 people

Long term unemployment 1,060 people

Violence 3,301 events

Older people emergency adm. 1,749 admissions

School readiness 352 children

Older people fractured hip 10 admissions

Child em. adm. for injury and poisoning 61 admissions

Child em. adm. for asthma, epilepsy, diabetes 104 admissions

Diagnosed with dementia 21 people

Our universities produce excellent graduates, with the University of East Anglia ranked 12th in the Complete University Guide 2018 top 50 universities,[49] however retention in the County is limited by a lack of opportunities and the lowest graduate wages in the Country. Where graduates do stay, they often take jobs in lower paid roles, not necessarily utilising their hard-won skills. New technologies such as autonomous transport, the Internet of Things, and 5G networks would allow the County to bolster its economy and increase migration of highly skilled workers to the area. The map on page 27 shows the net flow of people from UK cities into Norwich, 2009-2015.[50]
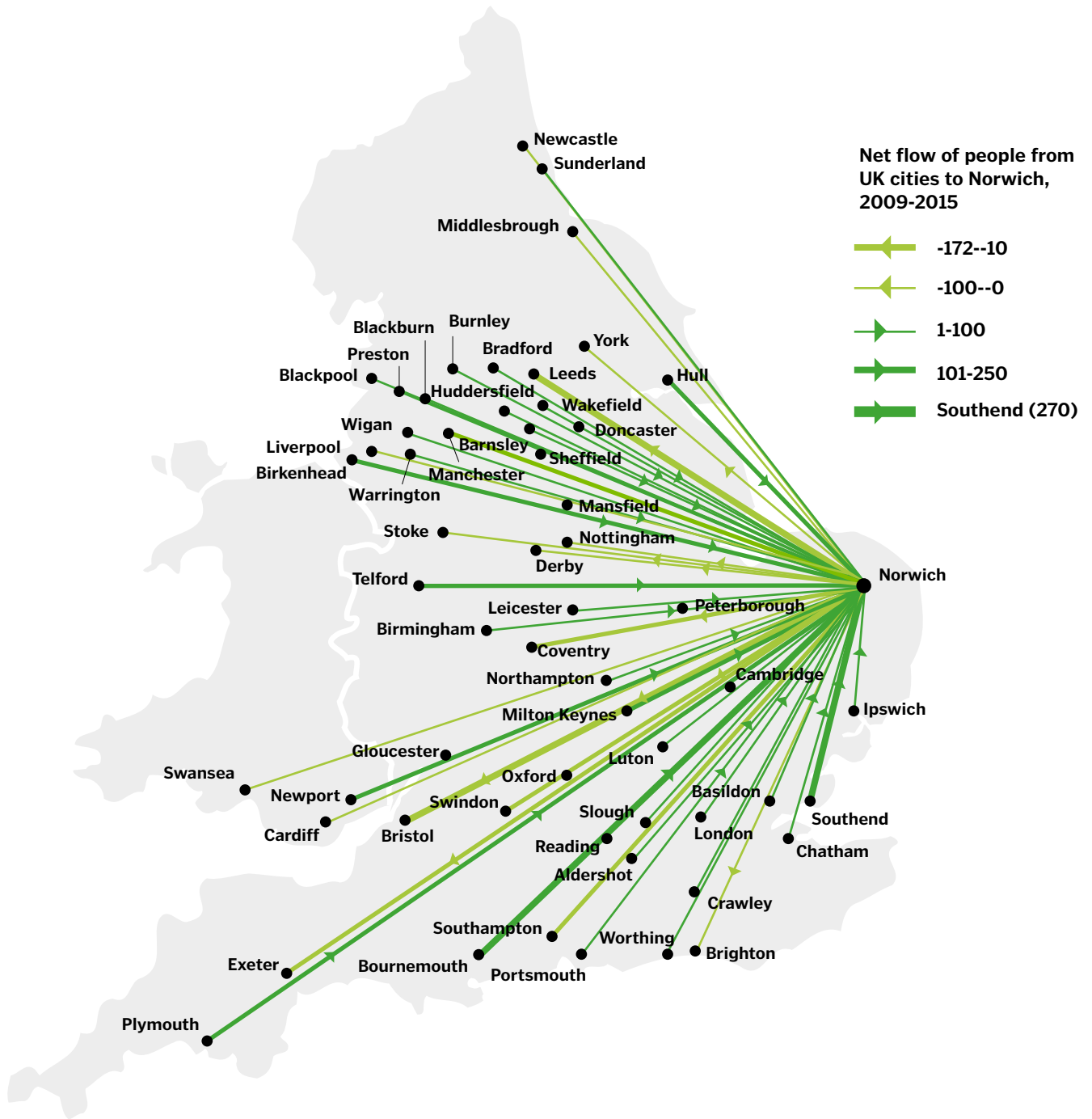
When broken down by age, Norwich gains 16-21-year olds but loses people in all other age groups.

49 https://www.timeshighereducation.com/student/news/complete-university-guide-reveals-its-top-uk-universities-2018#survey-answer
50 https://www.centreforcities.org/publication/great-british-brain-drain-analysis-migration-norwich/

Net view of people into Norwich 2009-2015

Net flow of people from UK cities to Norwich, 2009-2015

- -172--10
- -100--0
- 1-100
- 101-250
- Southend (270)

THREATS

Demographic changes and an acceleration in the urban/rural divide will increase levels of inequality in the County. This increasing polarisation could negatively impact levels of wellbeing and mental health as well as large areas of the county becoming unproductive and unliveable.

CASE STUDY: CASSEROLE CLUB

Casserole Club[52] volunteers share extra portions of home-cooked food with people in their area who aren't always able to cook for themselves, with the aim of building stronger communities and tackling loneliness as well as providing nutritious meals. As well as providing community cohesion Casserole Club could save councils considerable money as on average it costs councils £4.90 to provide a meal to vulnerable clients who can't cook for themselves.

OPPORTUNITIES

By combining resources and improving collaborative working, local authorities and the public sector can act on the most pressing challenges and aim to increase the life chances of its residents. The LGA[51] suggest that building more affordable housing; decentralising the skills system; investing in mobile and broadband connectivity; improving public transport provision and finding new models to support residents' health and well-being across dispersed populations could support the future success of rural places.
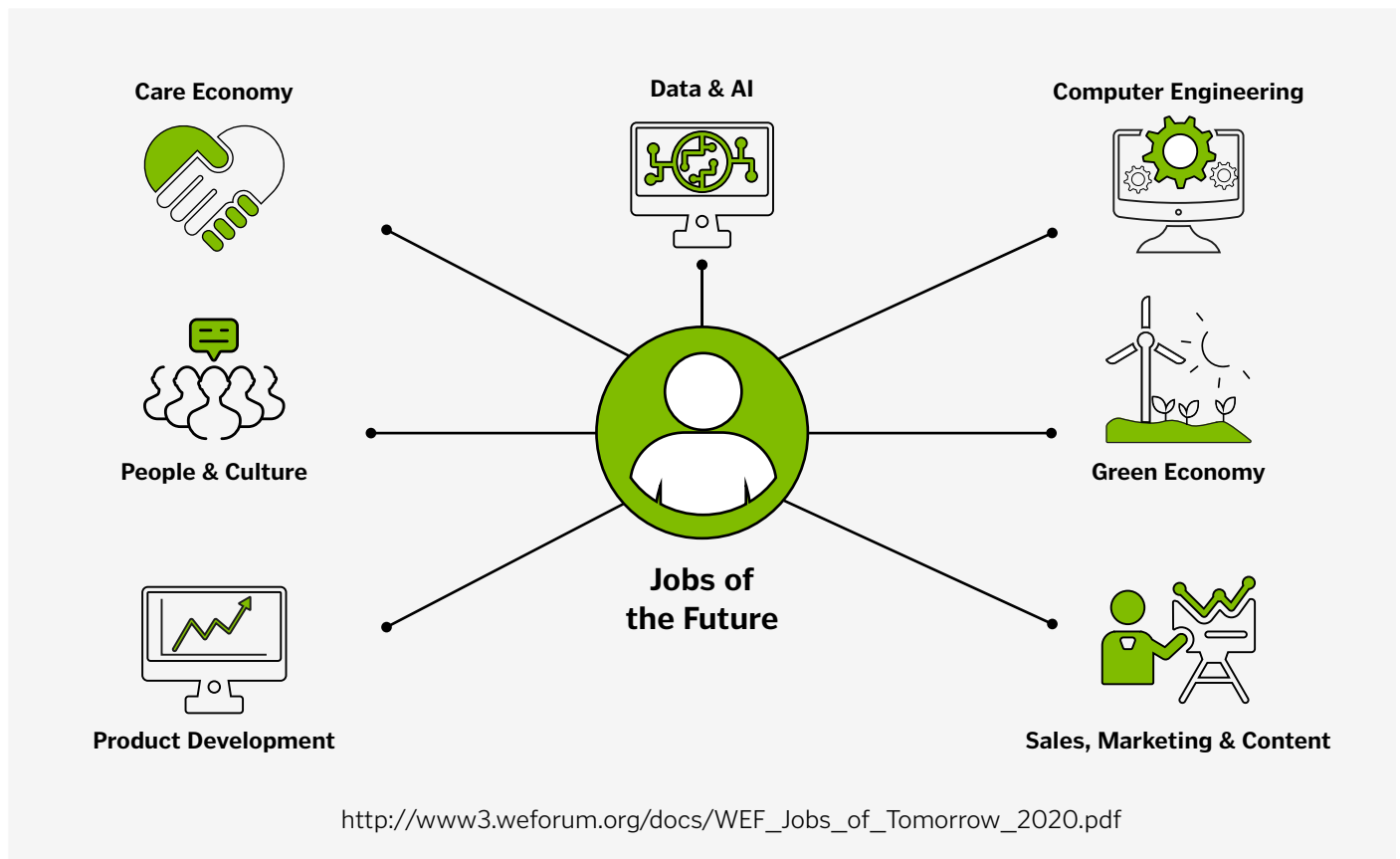
Jobs, Industry and Technology

There are big changes underway in the way we work. These are driven by; advances in technology, demographic shifts, urbanisation shifts in global economic power, resource scarcity and climate change.

In Norfolk, new technologies such as artificial intelligence (AI), 5G networks and autonomous vehicles all have the potential to make a significant difference. AI is already used by many organisations to improve the efficiency of processes as well as communications with customers through intelligent chatbots, for example. As machine learning and AI improves it will continue to redefine how human staff are utilised.

The potential for technology to improve jobs and industry is apparent, but there is a key challenge for the County: wages and skills levels are below the national average and automation could leave unskilled workers even further behind.

"Young people are not being prepared properly for technological change. Coding is only taught in some schools and the use of computers varies across schools and lessons," A representative from Norfolk's Youth Parliament in a Further Afield workshop.

Care Economy

Data & AI

Computer Engineering

People & Culture

Green Economy

Product Development

Jobs of the Future

Sales, Marketing & Content

http://www3.weforum.org/docs/WEF_Jobs_of_Tomorrow_2020.pdf

51 https://www.local.gov.uk/moving-the-conversation-on/non-met-england
52 https://www.wearefuturegov.com/products/casserole-club

By 2030 PwC predicts[53] that 30% of today's jobs will be automated. Invoicing, clerical and administrative jobs will disappear. While on the face of it this seems alarming, new technology advances have the potential and power to improve work fulfilment by removing repetitive tasks to allow more focus on the kinds of work which can't be automated – creativity and caring for each other. Employers will increasingly value creativity, caring, innovation, imagination and design skills.

"Increasing automation will not have the impact that is claimed. Work is changing and skills for work not yet developed will be needed," UK Government Futurist

Other technologies will also allow the Norfolk County Council to streamline its delivery. For example, Internet of Things technology can link together sensors, which could allow carers to monitor the well-being of vulnerable people in rural areas without having to necessarily make physical journeys.

Workers will need to learn new skills and work for longer because of our increased life expectancy. Older people are generally getting healthier and are looking for ways to continue to be engaged, productive and connected. There is an enormous economic benefit to supporting an older workforce. Official figures show that halving the employment gap between people aged 50 and state pension age and those in their 40s could see income tax and National Insurance receipts rise by 1% (just under £3 billion) and GDP up to 1%

(£18 billion) nationally. It could also help to reduce the welfare bill, with £7 billion a year currently being spent on benefits for people aged 50 to state pension age who are out of work.[54]

Global power is forecast to shift from developed countries and towards delivering nations. PWC forecasts[55] that the World Economy could double by 2050 with the E7 (China, India, Indonesia, Brazil, Russia, Mexico and Turkey) being double the size of traditional G7 nations (USA, Japan, Germany, UK, France, Italy, Canada).
These nations will become more appealing for foreign investment and labour, perhaps moving away from more traditional G7 nation locations. This could lead to unrest in developed nations as work becomes more scarce, polarised and insecure.

And resource scarcity and climate change such as depleted fossil fuels, extreme weather, rising sea levels and water shortages will also impact on jobs and industry. Global demand for energy and water is forecast to increase by 25% to 2040[56] and 40% by 2030[57] respectively. New types of jobs in alternative energy, new engineering processes, product design and waste management and re-use will be created to deal with these demands.

THREATS
With emerging technology using urban-focused design and delivery models, there is a risk that rural areas may be left behind. Norfolk must ensure that it does not miss out on the technology and infrastructure investment required to build a local economy that meets the needs and demands of markets and consumers.

53 www.pwc.com/gx/en/services/people-organisation/publications/workforce-of-the-future.html
54 https://www.ageing-better.org.uk/news/older-workers-crucial-UK-economy
55 https://www.pwc.com/gx/en/issues/the-economy/assets/world-in-2050-february-2015.pdf
56 https://www.iea.org/reports/world-energy-outlook-2018
57 https://www.unenvironment.org/news-and-stories/press-release/half-world-face-severe-water-stress-2030-unless-water-use-decoupled

OPPORTUNITIES

Technologies such as Internet of Things, autonomous vehicles and high-speed broadband will allow rural places to be as well connected as urban, given the right levels of investment. This would enable people to live in a rural setting and still be able to contribute to the emerging global economy, altering the trend for out-migration of our young people. In addition, there are huge opportunities for Norfolk to capitalise on its specialisms in alternative energy generation as demand for new sources of energy increases.

CASE STUDY: ZIPLINE DRONES DELIVERING MEDICAL SUPPLIES TO RWANDA

Zipline Drones[58] have been operating in Rwanda since October of 2016, using small autonomous drones to parachute critical blood products to rural medical clinics.

The system is able to get blood from a centralised distribution centre to where it's needed in minutes, independent of the time of day, traffic or weather. Zipline now manages 20% of rural Rwanda's blood supply and has flown more than 2,000,000 km in making commercial deliveries.

CASE STUDY: USING THE INTERNET OF THINGS TO GRIT ROADS

The Internet of Things, also known as IoT, is the concept of connecting a device with a sensor to the Internet to collect data to monitor, manage, control or report. This includes everything from kettles, light bulbs, pollution monitors and flood warning sensors. Sensors can be designed, developed and tested by anyone using low cost computing devices, which enable the rapid creation of prototypes.

Working with New Anglia Local Enterprise Partnership, Norfolk County Council has installed the longest free-to-use public long-range radio network. We're using the network to monitor road temperature in the Great Yarmouth area using sensors.[59] The data is used to inform more efficient and cost-effective winter gritting of roads.

Community Empowerment

In common with most local authorities, Norfolk County Council is already experiencing high and growing demand for services. This will be exacerbated as the demography of the County changes.

The rapidly changing demographic of Norfolk will make us ask questions about how we can maintain independence and resilience for longer, by staying in our own homes and seeking help from community resources. And how we can ensure that the vulnerable elderly are well looked after and can continue to enjoy life. We can dramatically improve people's life experiences and their resilience by helping them make better links to their communities.

Norfolk County Council is already starting to reshape Adult Social Care practice to help people live independently for longer by drawing upon the strengths and assets of the person to deliver the right outcome for them. A strand of the transformation programme is ensuring that older people are well connected to their community and can access community-based activities.

In addition, Norfolk County Council has invested in community connectors, together with partners in health, and is investing in improved information, advice and guidance resources to ensure people can easily find community resources.

As well as building community resilience to support our more vulnerable residents, we need to find better ways to help people engage with local decision making, as traditional models in local politics start to lose relevance.

The nature of citizen engagement in the UK is changing. For example, our current political system is complex with a mix of metropolitan, unitary and two-tier authorities across the country, with similar landscape of funding mechanisms; and people now engage with politics differently. Nationally, young people are under-represented (making up just 4-6% of typical party membership)[60] and young people have almost entirely abandoned television news broadcasts to get their political news. Half the country now gets its news from social media.[61]

At a local level there was a 34% average turnout[62] at the last local elections. In some areas – notably the more deprived areas – this fell as low as 20%. On current trends the average age of a councillor in the County will be 64.5 in 2040[63], raising questions of how well the characteristics of councillors reflect the whole population. About 27% of people feel that they do not have any impact on local government, but 48% would like to.[64]

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We need a new political structure where people are encouraged to vote because local communities have more power to make decisions about what's important to them
RSA Fellow, Further Afield event, January 2019.

[60] https://esrcpartymembersproject.org/
[61] https://www.ofcom.org.uk/__data/assets/pdf_file/0027/157914/uk-news-consumption-2019-report.pdf
[62] https://www.electoralcommission.org.uk/who-we-are-and-what-we-do/elections-and-referendums/past-elections-and-referendums/england-local-council-elections/results-and-turnout-may-2017-england-local-elections
[63] https://www.local.gov.uk/sites/default/files/documents/Councillors%27%20Census%202018%20-%20report%20FINAL.pdf
[64] Hansard Society 2018 Audit of Political Engagement

Whilst there is disengagement from formal political parties and processes, the desire for change is evident with popular movements such as the gilets jaunes in France, Occupy in the US and UK, climate change activists Extinction Rebellion and the Brexit debate in the UK. Politically active people are increasingly engaged through issues rather than ideology, and these issues are often breaking across traditional party lines making the parties themselves less relevant.

Changes in local democratic engagement are emerging, through both the use of technology and by changing the way policy and local decisions are made. E-Voting is becoming more secure and in May 2018, West Virginia became the first US state to offer e-voting in local elections to military and overseas voters. In January 2018 the Welsh Government promoted a policy to use electronic voting for local elections.[65]

Devolution of power to local areas has been a constant over the last 20 years with some powers being devolved to Scottish and Welsh assemblies. More recently, devolution deals have been agreed in England, such as the combined mayoral authorities formed in Manchester and the West Midlands.

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I think central government is frightened with giving local government power. I think they are determined to hold onto the purse strings. If they weren't, we'd have local income tax. I think it would benefit this area. You'd know exactly what you're getting. I can't see that happening because central government always want to control,"
Broadland resident in Ipsos Mori focus group.

In a further indication of how local government may be changing in the future, in 2018 the UK Government published its Civil Society Strategy[66], the first document of its kind in over 15 years. The strategy states, "The government believes that social value flows from thriving communities. These are communities with strong financial, physical and natural resources, and strong connections between people".

The strategy addresses the democratic deficit and suggests a range of interventions that may be possible, including e-voting, citizen commissioners and fully devolved place-based decision making. Simple changes such as altering the time of Council meetings and creating citizen assemblies can provide a much bigger opportunity for engagement. In the summer of 2018 the Irish Government held a historic vote on abortion, which was facilitated by a citizens' assembly to break the political deadlock that had remained on this issue for decades.[67]

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The current political system is not representative of people in Norfolk,"
A representative from Norfolk's Youth Parliament in a Further Afield workshop.

As local government tax-raising devolves further, with plans to retain 75% of business rates by 2022[68], the electorate and local government will become more focused on local decisions and conditions for success. This is a prime opportunity to plan for the future of what local democracy could look like.

[65] https://news.sky.com/story/welsh-assembly-announces-plans-to-introduce-e-voting-11229714
[66] https://www.gov.uk/government/publications/civil-society-strategy-building-a-future-that-works-for-everyone
[67] https://www.involve.org.uk/resources/blog/opinion/citizens-assembly-behind-irish-abortion-referendum
[68] https://www.themj.co.uk/Fair-funding-review-and-75-retention-delayed/214519

THREATS

Failing to improve community cohesiveness risks us reducing the life span and quality of life of older residents. As our demographic changes, we need to find new ways to care for and enhance older people's lives. Investing in social infrastructure will help keep people at home for longer, as well as ensuring they are happier and healthier.

The threat to local democracy is obvious. If current trends and processes continue there will be a loss of democratic legitimacy and a perceived power vacuum. This will lead to poorer decision making due to a lack of differing views on local priorities. It will also lead to decisions that favour particular parts of society.

OPPORTUNITIES

With ongoing and increasing interest in decision making by residents, there are a wealth of opportunities to engage with this audience. If residents feel that they have ownership of decision making they are much more likely to want to provide support and resource, benefitting society as a whole. Making people part of local choices gives a better understanding of need and developing more robust policies in response.

CASE STUDY: IN GOOD COMPANY: TACKLING LONELINESS IN NORFOLK

The UK is experiencing an epidemic of loneliness with research[69] showing that people are more isolated from friends and family than ever before. This can have a negative impact on their confidence, independence and health. It can make people more dependent on council services and has been found to be as damaging to health as obesity or smoking.

The Norfolk In Good Company campaign[70] involved a wide range of partners and encouraged everyone to do their bit to tackle loneliness by befriending, volunteering or running events. It achieved coordinated action across Norfolk to tackle loneliness; organised 150 weekly events across the county; recruited 60 volunteer befrienders and promoted community volunteering.

The campaign has won national recognition in the form of awards from the Chartered Institute of Public Relations (CIPR) for best public sector campaign[71] and best low budget campaign; it has been used by the LGA as best practice[72]; been praised by the Arts Council[73]; and included in the Jo Cox Foundation's report[74] on loneliness as an example of best practice.

[69] https://psycnet.apa.org/doiLanding?doi=10.1037%2Famp0000103
[70] https://www.norfolk.gov.uk/what-we-do-and-how-we-work/campaigns/in-good-company
[71] https://ciprawards.co.uk/pride/anglia-thames-and-chiltern/hall-of-fame/results-2017/
[72] https://www.local.gov.uk/about/news/loneliness-initiatives-cutting-emergency-hospital-admissions-20-cent
[73] https://www.artscouncil.org.uk/sites/default/files/download-file/Combined%20older%20people%20report%2017%20July.pdf
[74] https://www.redcross.org.uk/-/media/documents/about-us/combatting-loneliness-one-conversation-at-a-time.pdf
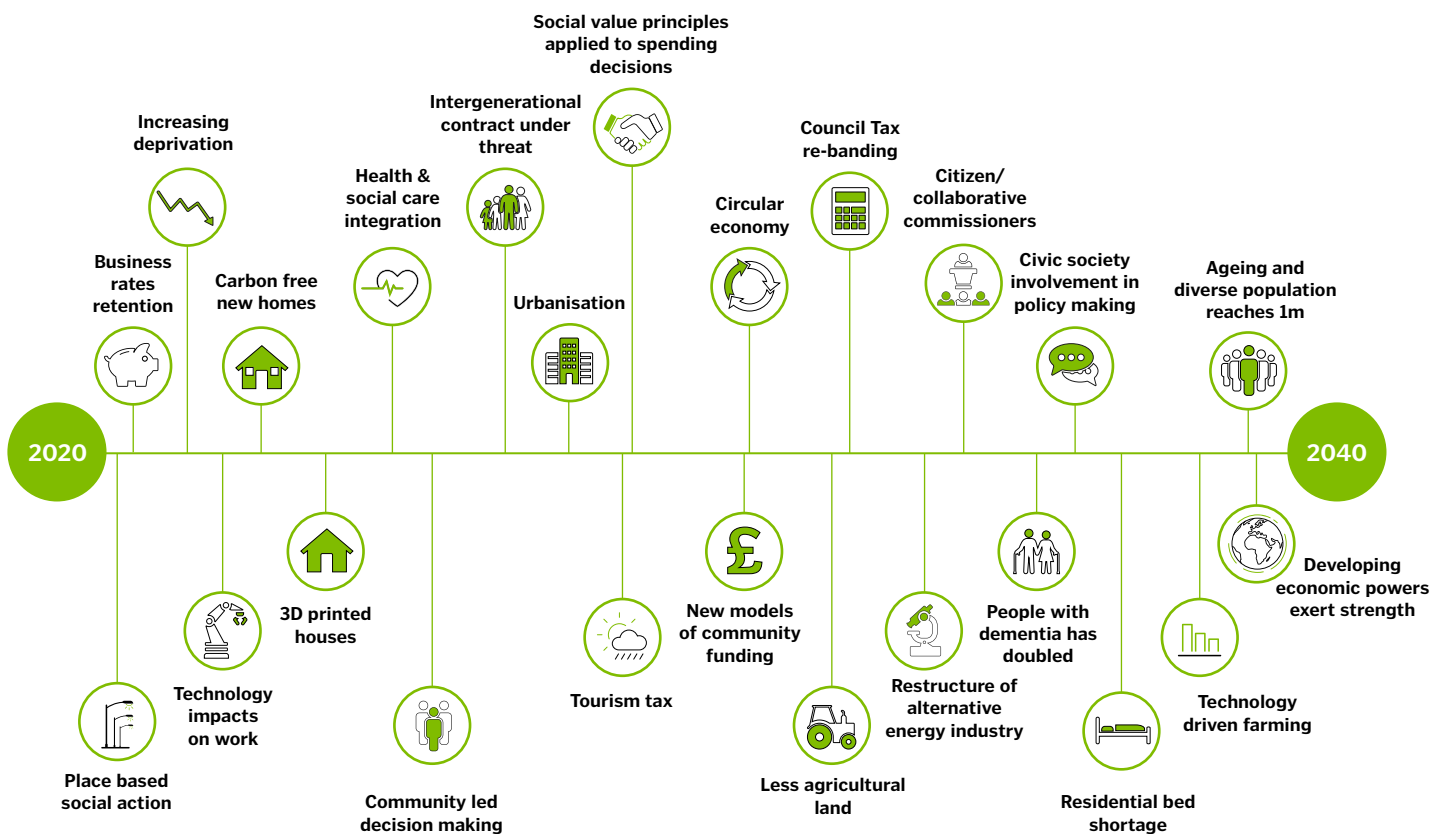
CASE STUDY: FOREST OF DEAN CITIZEN'S JURY Gloucestershire's NHS Trust and CCG commissioned a citizen's jury to recommend the location of a hospital.[75] Residents were invited to apply to sit on the jury and the response was overwhelming with 218 applying for 18 places. The jury then took evidence over 4 days, examining witness briefings and evidence. The final decision was approved by the relevant NHS governing body.

(Image from BBC website https://www.bbc.co.uk/news/uk-england-gloucestershire-45007437)

Future Drivers of Change: Possible Timeline

This timeline represents some of the wider findings of the work. Some are facts and some are issues that we've considered. This timeline isn't a prediction of future events but gives you an idea of individual drivers that may affect the county in the next 20 years.

Above the timeline (left to right):
- Increasing deprivation
- Social value principles applied to spending decisions
- Intergenerational contract under threat
- Health & social care integration
- Council Tax re-banding
- Business rates retention
- Carbon free new homes
- Circular economy
- Citizen/ collaborative commissioners
- Civic society involvement in policy making
- Ageing and diverse population reaches 1m
- Urbanisation

2020 — 2040

Below the timeline (left to right):
- 3D printed houses
- Technology impacts on work
- New models of community funding
- People with dementia has doubled
- Developing economic powers exert strength
- Place based social action
- Tourism tax
- Restructure of alternative energy industry
- Technology driven farming
- Community led decision making
- Less agricultural land
- Residential bed shortage

www.norfolk.gov.uk/together

List of stakeholders engaged with;

- NCC Cabinet and Corporate Board

- NCC County Leadership Group

- Norfolk Leaders Group

- Norfolk Chief Executives Group

- Royal Society of Arts Central Office and Norfolk and Norwich Fellows Network

- Aviva's Future of Mobility Team, Norwich

- Government Office for Science

- The UK Government Heads of Horizon Scanning Network and survey of members

- Norfolk's Youth Parliament

- Norfolk's Youth Advisory Boards

- Adult Commissioners Group

- 2018 residents focus groups commissioned by Norfolk County Council and run by Ipsos Mori

- 2019 residents survey commissioned by Norfolk County Council and conducted by M E L Research

TOGETHER,
FOR OUR FUTURE

Norfolk County Council

AVIVA

RSA