

**DRAFT**

# **GLOUCESTERSHIRE LOCAL INDUSTRIAL STRATEGY 2019**

**GLOUCESTERSHIRE:  
FUTURE-PROOFED**

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# Foreword

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Technological change will have a huge impact on everyone's lives and livelihoods over the next few decades – indeed it has already started. Many types of jobs will disappear – others will be created; but we are yet to see whether policy and the public will keep up with the pace of change effectively. It is on all of us to get out in front of it and proactively skill-up and inform ourselves to be ready.

This call to arms comes direct from one of the 5,000 talented young people we surveyed to help us develop this, our draft Local Industrial Strategy for Gloucestershire. Getting ahead of the curve – on the digital revolution, on fighting climate change and protecting nature, on future-proofing the county's homes and infrastructure – is absolutely crucial to delivering a thriving, productive economy where everyone, no matter their age or background, has the opportunity to live life to the fullest. This is what this draft strategy sets out to do.

We need more young people to build their lives here in Gloucestershire to support our existing industrial strengths, such as advanced engineering, and help us exploit new opportunities – in cyber-tech, agri-tech and green technology in particular. This builds on our county's strong tradition of innovation and our reputation, linked to GCHQ, as the cradle of cyber-tech innovation in the UK.

But currently, over 66% of young people we surveyed plan to leave the county within 5 years. We need to move the dial on this.

We have collected evidence from all corners of the county. We have asked young people what they think we need to do to become a magnet for talent – protecting the environment came out as their top priority. We have tested our priorities with our partners and key stakeholders. Now, we are opening up the conversation more widely, to help us develop these ideas further, and engaging with government to co-author a final version of the strategy for publication next year. Please see our website for details of the questions we are asking and don't miss your chance to get involved.



**Dr Diane Savory OBE**  
Chair, GFirst LEP



**David Owen**  
CEO, GFirst LEP



# Executive Summary

Gloucestershire has been a significant location for commerce since around AD48 when the Romans established an important crossing at the River Severn at Glevum.

Located at a crossroads between Wales and London, and the West Midlands and the South West, the county's strategic position, even in an increasingly digital age, remains important to this day for businesses, visitors, and residents alike.



In many ways Gloucestershire is a county of contrasts....



From the rolling hills of the Cotswolds to the urban centres of Gloucester and Cheltenham.



From an ageing population to a net exporter of 18-24-year olds.



From our market towns and villages to areas of relative wilderness in the Forest of Dean.



From its prosperous and resilient economy to its areas of high unemployment and deprivation.



From large, nationally important employers such as GCHQ to a vibrant SME community.



From its strong reputation for innovation to its need to improve productivity.

Gloucestershire's Local Industrial Strategy (LIS) aims to **protect** and **enhance** the many positive features that make this county a great place to live and work, to build upon and exploit those strengths, and to address the **challenges** we face.

A fundamental element of this strategy is our desire to become a '**magnet county**', by which we mean:

Ensuring that the environment, the arts, heritage and culture, creativity and active living are central to our vision of a healthy, productive county that attracts and retains young talent and supports all its residents to live life to the full.



This pressing need to attract and retain the young talent that will shape the future of Gloucestershire has influenced our strategic thinking in all areas of the LIS – here are the headlines:

SEIZING OPPORTUNITIES:

# Cyber-tech



*This proposition aligns with the government's Grand Challenge for AI & the Data Economy.*

Gloucestershire is the **natural home of cyber-tech innovation** in the UK, synonymous with Cheltenham as the home of GCHQ, and internationally recognised as the 'cradle of cyber-tech innovation for the UK'.

## We want to:

- + Deliver the UK's first fully cyber-centric business park - **Cyber Central** - a vibrant business park adjacent to GCHQ in Cheltenham.
- + Ensure that everyone in Gloucestershire has access to high quality digital connectivity, **digital skills**, and the confidence to make the most of the digital revolution.
- + Develop **cyber-tech skills capabilities** in the county to satisfy and then propel the sector beyond 2030.

SEIZING OPPORTUNITIES:

# Green



*This proposition aligns with the government's Grand Challenges for Clean Growth, Future of Mobility, and AI & the Data Economy.*

Gloucestershire has the potential to be **the greenest place to live and work** in England.

## We want to:

- + establish Gloucestershire as a **leader in sustainable growth** by developing a baseline to determine how best to protect, maintain and enhance our natural capital assets.
- + put clean growth at the heart of investment decisions and new developments.
- + build on local green capabilities in the private sector.
- + reduce carbon emissions to **net zero by 2050** with aspirations to go further and faster.

# The Five Foundations of Productivity



Our **cyber-tech** and **green** strategies will be supported by interventions across all five foundations of productivity within the government's Industrial Strategy.



## Building on a strong track record of innovation across established and emerging sectors



*These propositions align with the government's Grand Challenge for AI & the Data Economy.*



## Innovation

Gloucestershire has a well-deserved strong reputation for highly innovative businesses, including within the cyber-tech, agri-tech, and high-tech engineering sectors – all strategically important to us.

### What we need:

- + To expand innovation support through the Growth Hub network by creating an **Innovation Factory** to drive innovation through collaboration, creativity and knowledge exchange.
- + To stimulate and promote a thriving community of innovators at **Cyber Central**, our cyber-tech park in Cheltenham.



## Agri-tech

In recent years Gloucestershire has developed a strong specialism in agri-tech, largely through the presence here of two agriculturally focused universities, Royal Agricultural University, and Hartpury University and College, and a world-leading agri-food research organisation, Campden BRI.

### What we need:

- + Utilising agri-tech, **to create a healthy circular economy in food and farming** that is good for the planet, builds natural capital and will reduce food-related illness, making Gloucestershire the first place in the world to do so.

*By natural capital we mean our stocks of natural assets such as geology, soil, air, water and all living things.*

- + Invest in the creation of an advanced agri-tech hive, a virtual innovation cluster that builds on previous GFirst LEP investment in agri-tech and cyber security.



# People

Building the workforce of the future and boosting earning power for everyone by improving skills



*This proposition aligns with the government's Grand Challenges for AI & the Data Economy and Ageing Society.*

Businesses need access to people with the right skills to support high quality productive jobs.

## What we need:

To support our desire to be a 'magnet county' **that attracts and retains young talent** we will:

- + position Gloucestershire as **'the most flexible place to work'** in the UK so that everyone, young and old, and those currently struggling to get a job, can work in a way that enables them to make their best contribution to society.
- + ensure that Gloucestershire's education and training system meets **local businesses' skills needs**.





# Business Environment

Local leadership to turbo charge our business community – starting, scaling, succeeding



*This proposition aligns with the government's Grand Challenge for AI & the Data Economy.*

Gloucestershire has a vibrant and diverse business base with a strong start-up culture.

To thrive in the digital marketplace, businesses must be able to adapt to the changing environment, attract the right talent, innovate, and access the support they need.

## What we need:

- + Private investment in businesses and **access to funding** through institutions such as British Business Bank and research funding through UK Research and Innovation (UKRI).
- + To ensure the **future-proofing of our Growth Hub** offering, both physical and digital, so that business support available in the county remains a national exemplar.





# Infrastructure

Green growth, modern transport choices and better digital connectivity wherever you live in the county



*This proposition aligns with the government's Grand Challenge for Future of Mobility and AI & the Data Economy.*

We want Gloucestershire to be a fully connected county through innovative transport solutions and digital connectivity so people and businesses can easily connect; and meet our house building commitment to provide more affordable housing for young people.

## What we need:

- + to create real alternatives to travel by car in Gloucestershire, and identify priorities for investment, such as:
  - + **a mass-transit transport solution** that provides a reliable, quick and clean link between Cheltenham and Gloucester;
  - + **better cycle links** to improve health, reduce congestion and protect the environment;
  - + **rail projects** to improve connections within the county and with other major hubs.
- + to become a pilot area for **innovative technology-driven transport solutions** that work in rural areas.
- + delivery of local plans to significantly **increase the supply of housing** in the county.
- + **high quality digital infrastructure** for everyone in Gloucestershire.





# Places



## Something for everyone in our vibrant, green county

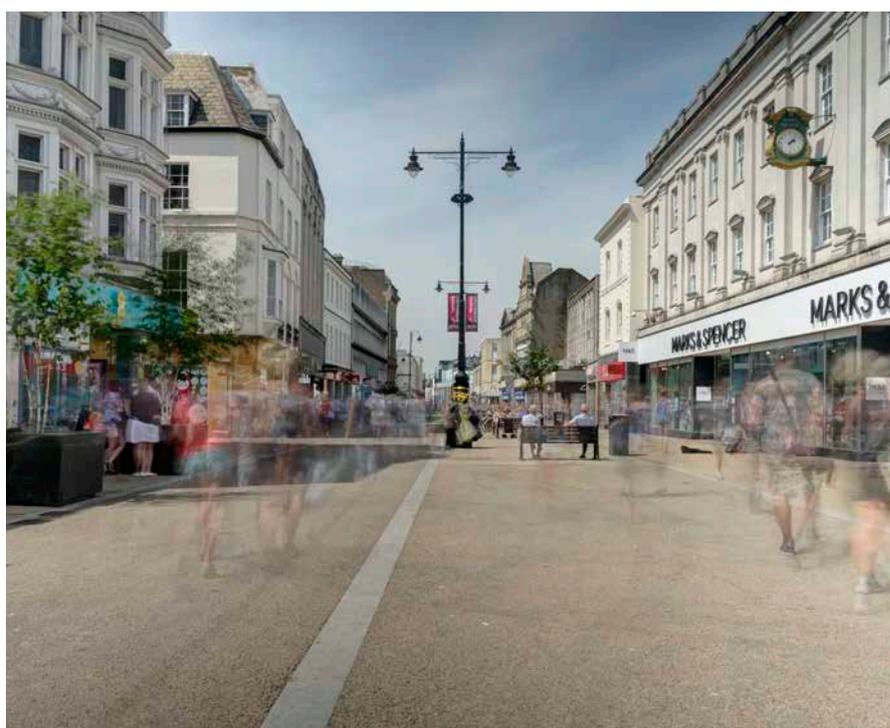
Gloucestershire enjoys an abundance of natural beauty and heritage and a healthy tourism sector. The urban hearts of Cheltenham and Gloucester and the beautiful countryside, market towns and villages that surround them provide something for everyone.

We must exploit these advantages to be a 'magnet county' whilst ensuring that all communities, including those experiencing high unemployment and deprivation, have the chance to make a positive contribution to society.

The major regeneration and infrastructure investment taking place in Gloucester, coupled with our ambitious plans for Cheltenham, have highlighted the potential for creation of a **Central Gloucestershire City Region**.

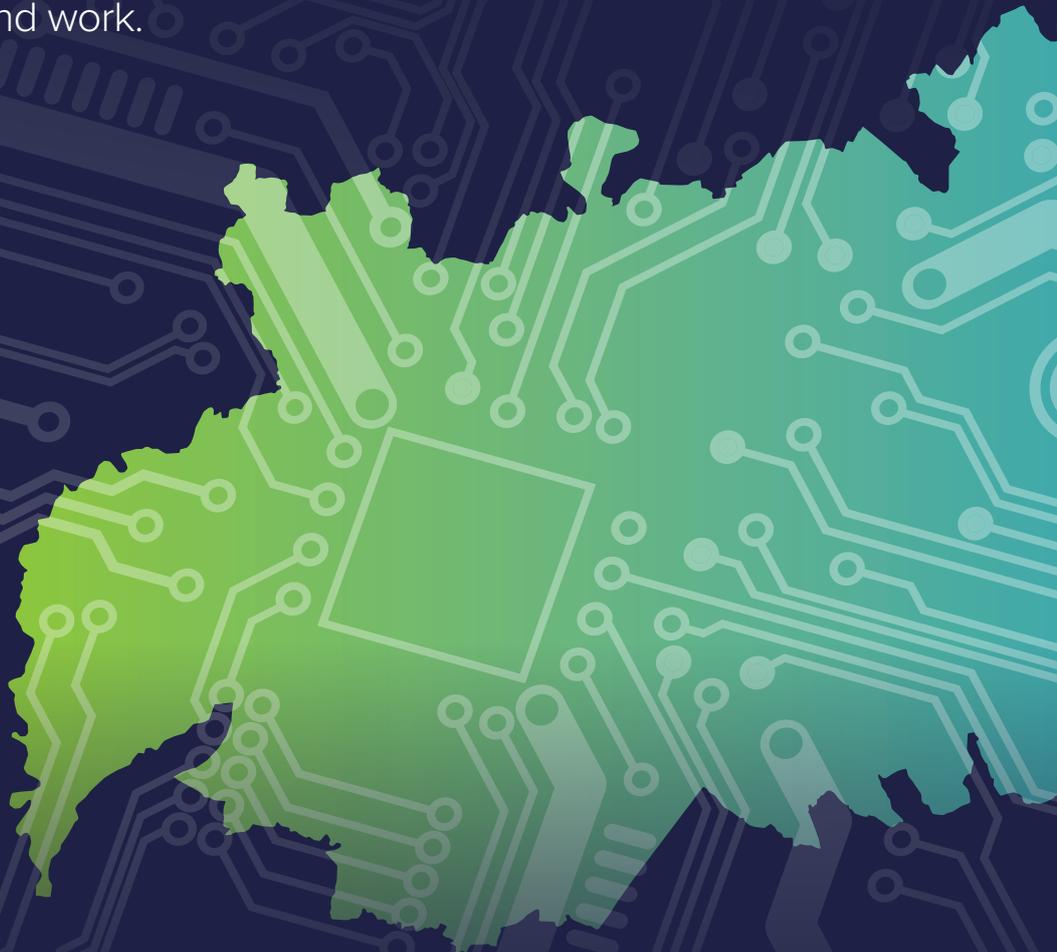
### What we need:

- + To achieve **Tourism Zone status** as part of the Industrial Strategy Tourism Sector Deal.
- + To work with health community partners to ensure we deliver **inclusive economic growth** for all.
- + To build on the established M5 corridor 'Growth Zone' and the current Joint Core Strategy plans of Gloucester, Cheltenham and Tewkesbury to promote a thriving **Central Gloucestershire City Region**.
- + To support Gloucester's **2025 City of Culture bid** and ensure a legacy of cultural success for the city.



## Delivery of this ambitious Local Industrial Strategy will position Gloucestershire as:

- + the cyber-tech capital of the UK and beyond;
- + digitally connected and skilled;
- + the greenest place to live and work in England;
- + the first place in the world to create a healthy circular economy in food and farming;
- + the most flexible place to work in the UK;
- + a 'magnet county' that attracts and retains young talent;
- + inclusive and supportive of all its residents;
- + delivering sustained productivity improvements; and
- + a great place to live and work.



# Introduction

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This document brings together the early stages of our work to produce a Local Industrial Strategy (LIS) for Gloucestershire – a strategy to drive productivity and prosperity in our county and support an inclusive economy. The emerging plan will play to the strengths, capabilities and skills of Gloucestershire’s employers, and highlight the business sectors we expect to make the greatest contribution to economic growth in the county by 2030.

## Listening and learning

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### Our emerging LIS draws on:

- + significant stakeholder engagement and input;
- + guidance from government;
- + the Gloucestershire Five Foundations of Productivity Evidence Report published alongside this document; and
- + learning from other LEPs.

### We have carried out extensive engagement with:

- + county, city, borough, and district councils;
- + regional and sub-regional partners such as the Local Nature Partnership, the Cyber Valley LEPs, Gloucestershire Health & Wellbeing Board, neighbouring LEPs;
- + Gloucestershire’s business community, including GFirst LEP’s network of ten Business Groups; and
- + over 5,000 of the county’s young people.

**Our engagement with younger citizens of Gloucestershire has been especially helpful in ensuring that our ambitions include what matters most to future generations.**



**300**  
SUBMISSIONS

## Call for evidence

We received nearly 300 submissions from private, public, and not-for-profit sector organisations highlighting research, describing current and emerging strategies and answering our questions about how to increase productivity in the county. This has helped to form a rich evidence base to support the development of our strategy.

## What happens next?

This is not the end of the consultation process...

We want to hear your views to ensure that we have captured the essence of Gloucestershire, its businesses, its residents and communities, its workforce, and its natural environment; and that the future direction outlined here delivers inclusive growth and prosperity – all of these elements will be central to our success as we move towards an agreed Local Industrial Strategy with government and beyond to its delivery.



We want  
to hear  
from **you!**

If you would like to respond, please see our website for the consultation questions and submit your comments to [LIS@gfirstlep.com](mailto:LIS@gfirstlep.com).

# Gloucestershire and the Industrial Strategy – the ‘magnet county’

## Definition:

**magnet:** a person, place, or thing that someone or something is attracted to.....**Gloucestershire**

Gloucestershire occupies a pivotal location in the UK, with Birmingham to the north, Bristol to the south, Oxford to the east and Cardiff to the west. The M5 motorway dissects the county from north-east to south-west, and just over the border with South Gloucestershire the M4 runs east-to-west.

There are two closely located urban centres in Cheltenham and Gloucester, and a mix of smaller towns and villages across the more rural districts of Stroud, Tewkesbury, Cotswold and the Forest of Dean, all of which contribute to the county's economy.

A great place to live and work

As a county with a prosperous and resilient economy set within a highly attractive natural environment, Gloucestershire is a great place to live and work.

Each of the county's six districts of Cheltenham, Cotswold, Forest of Dean, Gloucester, Stroud and Tewkesbury offers something unique and special to their residents, businesses and visitors. And each supports the county's economy with the skills of its people and innovative firms, including many start-ups.

The tourism sector, driven by the Cotswolds Area of Outstanding Natural Beauty (AONB) and the Royal Forest of Dean, also provides huge economic support to the Gloucestershire economy.

There are opportunities to enhance Gloucestershire's already strong quality of life and support our ambition to be a 'magnet county' *that attracts and retains young talent and supports all its residents to live life to the fullest.*



**£16.48 billion**

**economic output in 2017**



**33,500 Businesses**

**344,000 Jobs**

**319,800 Workers**





## An ageing population

Gloucestershire, like most of the UK, has an ageing population, with a declining number of residents available to work, and has the highest share of 50–64-year-olds of all neighbouring LEP areas.

The ageing population means replacement demand will be a critical challenge in the future. There are no official figures, but a recent UK Commission for Employment and Skills paper<sup>1</sup> suggests that **for every new job created in the county, nine people will leave the workforce** and provides a summary of key findings for Gloucestershire.

While the proportion of people in the labour market with higher skills has grown, Gloucestershire has not attracted higher level skills to the same extent as some of its neighbours, or nationally.



## Wanted: more young talent

Gloucestershire is currently a net exporter of 18–24-year-olds and so **young talent is in short supply**.

Young people are choosing not to remain in or relocate to the county; this is for a variety of reasons including a limited supply of affordable housing and job opportunities elsewhere. These issues were explored in the county's Vision 2050<sup>2</sup> consultation undertaken during 2018, on which this Local Industrial Strategy builds.



## Looking beyond the county

Gloucestershire can take advantage of its geographical location in the UK through strategic partnerships with its neighbours. To the south of the county the M4 corridor is not only a significant asset for east-west movement but also for employment. The M5 spine is a focus for growth in Gloucestershire and beyond. It can exploit the talent and supply chains from Bristol to Birmingham.

At its core lies the burgeoning **Central Gloucestershire City Region**, comprising Cheltenham, Gloucester and parts of Tewkesbury Borough.



<sup>1</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/483126/LMI\\_Summary\\_-\\_Gloucestershire\\_Final\\_.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/483126/LMI_Summary_-_Gloucestershire_Final_.pdf)

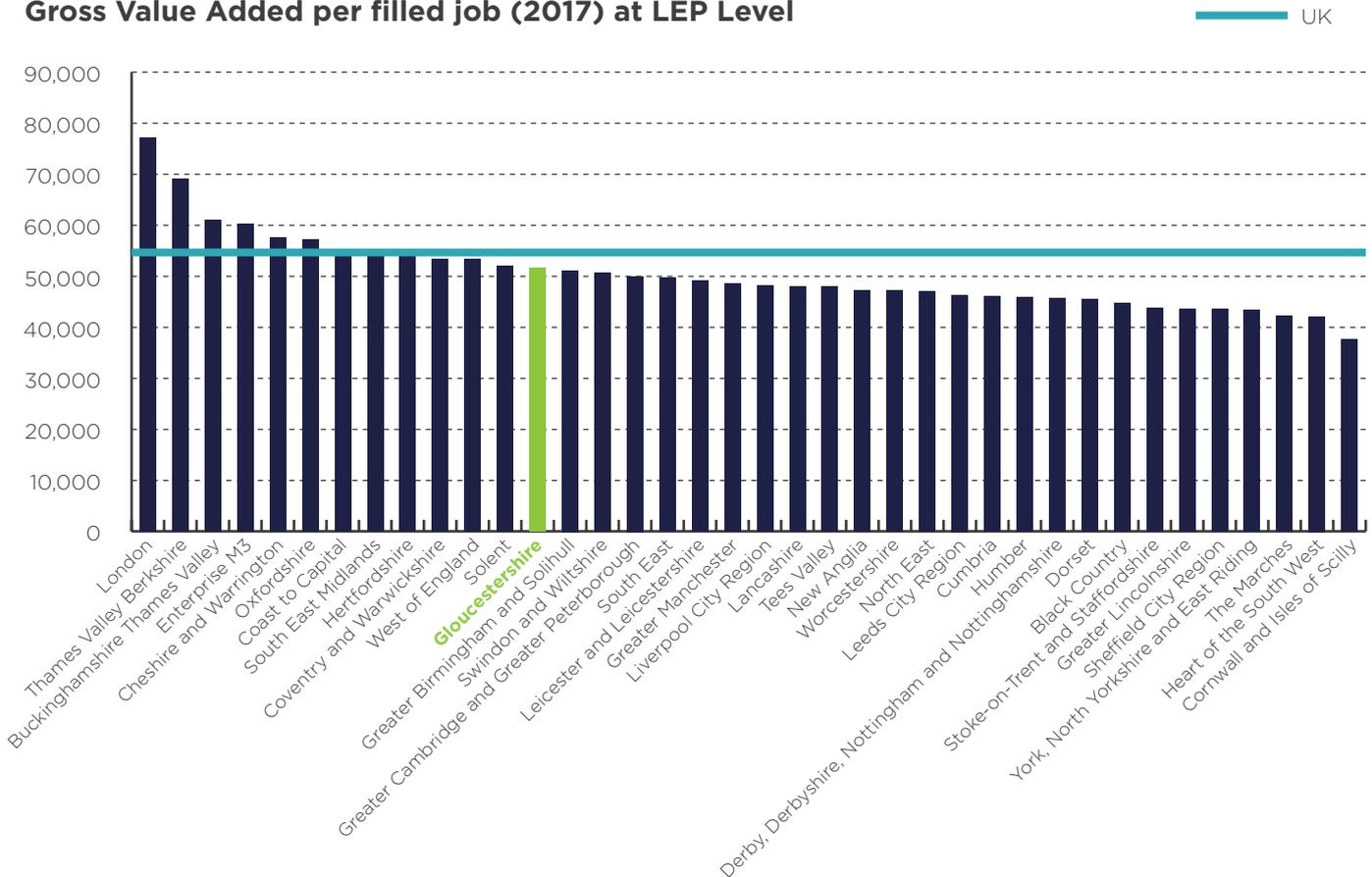
<sup>2</sup> <https://glos2050.com/>



## The need to increase productivity

Gloucestershire has a relatively productive economy, ranking 13th out of 38 LEP areas for GVA per filled job.<sup>3</sup> Employee and business growth are positive, while business formation and survival rates have traditionally been high. However recent performance in business formation relative to England has presented a weaker trend, with the national average closing much of the gap that had developed historically.<sup>4</sup>

### Gross Value Added per filled job (2017) at LEP Level



We must remove the constraints and barriers to productivity growth whilst addressing the issues experienced by more deprived parts of the county through creation of a more inclusive economy which encourages social mobility<sup>5</sup>.

To achieve this will need Gloucestershire's key stakeholders to drive action. These stakeholders include businesses, local government, public and not-for-profit sectors, educational institutions, research facilities, and our health community partners.

Our strategy to increase productivity will include engaging with government to:

- + seek support for investment in Gloucestershire; and
- + ensure that local organisations are empowered to drive the change needed to respond swiftly to local opportunities and challenges.

<sup>3</sup> Gloucestershire Five Foundations of Productivity Evidence Report

<sup>4</sup> Gloucestershire Five Foundations of Productivity Evidence Report

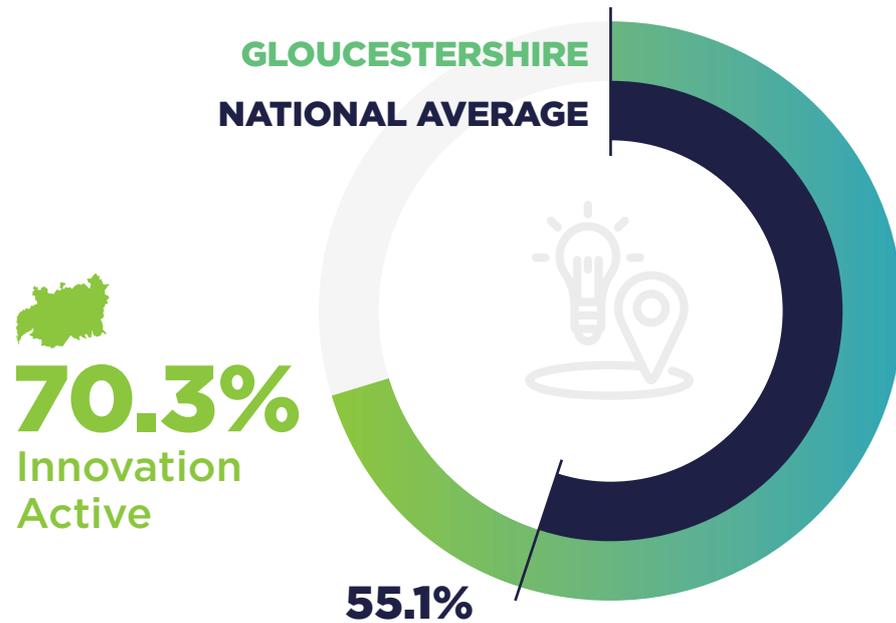
<sup>5</sup> Draft Gloucestershire Health and Wellbeing Strategy - Gloucestershire County Council



## An 'innovation active' county

High levels of research and development from businesses in the county make Gloucestershire one of the most innovative places in England. Local research and development expenditure in the county is **3.3% of GVA**, one of only a handful of areas to spend more than the 2.4% Government target<sup>6</sup>. Patent filing numbers are also strong.

Gloucestershire's innovation activity level is strong with 70.3% of businesses in the county being 'innovation active' compared to a 55.1% national average, second of all LEP areas. Similarly, a higher than average number of people work in STEM Research and Development (R&D) roles.<sup>7</sup>



## Varying performances across the county

Evidence highlights variations in economic performance between Gloucestershire's districts, although it is not the case that rural areas are uniformly underperforming compared to urban parts of the county. This is perhaps because each district is home to high performing businesses, for example there is a strong high-value engineering cluster in Tewkesbury, and there are some key mid-to-large size businesses, such as Renishaw, Ecotricity and Delphi, based in Stroud.

Gloucester, which has under-performed in the recent past, is undergoing major regeneration and infrastructure investment, and is set to deliver greater dynamism and improved growth.

Inclusivity and social mobility challenges continue to exist in parts of the county, with pockets of persistent high unemployment and deprivation, and associated issues around health and well-being in both urban and rural locations.

<sup>6</sup> Smart Specialisation Hub report 'What does the 2.4% of GDP R&D expenditure target mean for Places', January 2019

<sup>7</sup> Gloucestershire Five Foundations of Productivity Evidence Report

# Our key strengths

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## Manufacturing services

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Gloucestershire has strengths in many sectors with a key area being 'manufacturing services'<sup>8</sup> for the advanced engineering sector. The county is home to an important cluster of product manufacturing businesses including hydraulics, valves, pumps, and associated electronic components.



## Aerospace

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Large co-located aerospace companies in Tewkesbury Borough such as GE Aviation and Safran Landing Systems are able to draw on a cluster of technical expertise to produce high value export products with associated services - with the potential for future export expansion.



## Agri-tech

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Gloucestershire's food and agriculture sector is valued at nearly £1.5bn and supports over 50,000 jobs in the county's wider economy<sup>9</sup>. With research and education assets including the Royal Agricultural University, Hartpury University and College and Campden BRI, the county is well placed to drive agri-tech innovation to increase productivity.



## Cyber-tech

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Cyber-tech and digital is emerging as a key growth sector for the county, linked to Gloucestershire's well-established association with the UK intelligence, security and cyber agency, GCHQ,<sup>10</sup> based in Cheltenham, and the town's longstanding reputation for expertise in IT and management consultancy.

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<sup>8</sup> That is, not just the physical product but the [higher associated requirement for] skills and expertise associated with design, installation, maintenance, repair etc.

<sup>9</sup> The Scale and Impact of the Farming, Food, Drink & Rural Economy in Gloucestershire, Collison et al, March 2019

<sup>10</sup> The timing of falls in 'defence' employment in Cheltenham coincides with growth in this sector, suggesting some level of 're-classification', perhaps due to the expanded provision of services to the private sector.



## The skills challenge

The key sectors identified, and the specialisms within them, highlight that technical and vocational skills are particularly important to the Gloucestershire economy. We have the potential to address the skills shortage vacancies faced as STEM (Science, Technology Engineering and Maths) provision<sup>11</sup> and apprenticeship delivery have expanded in recent years.

But we must go further – the county does not produce sufficient STEM graduates to support the employment base and is relatively poor at graduate retention when compared to neighbouring areas – which risks the ability of firms to innovate and grow.



## The green imperative...

We are in the midst of a climate change emergency. We must ensure that our growth is not at the expense of our unique environment both locally, nationally and globally. Our young people demand, and deserve, no less. It is only when we are recognised nationally as being both at the forefront of clean, green growth, and home to the most exciting, productive jobs in the digital age, all set within the natural assets and rural environment of Gloucestershire that, as a 'magnet county' we will **attract and retain the young talent we need.**



<sup>11</sup> For example, the Gloucestershire STEM Network and UoG STEM strategy 2017-22. Hartpury University and College and Cirencester College also focus on STEM.



```
mirror_obj.  
modifier_obj.  
bpy.context.scene  
print("Selected" + str(  
#mirror_obj.select = 0  
zone = bpy.context.selected_object  
#bpy.data.objects[one.name].select = 1  
except:  
print("please select exactly two ob  
----- OPERATOR CLASSES  
#-----  
# mirror tool  
class MirrorX(bpy.types.Operator):  
    """Adds an X mirror to the selected object  
    """  
    bl_label = "object.mirror_mirror_x"  
    bl_options = {'REGISTER', 'UNDO'}  
    @classmethod  
    def poll(cls, context):  
        return context.active_object is not None  
    def execute(self, context):  
        # get first to mirror  
        mirror_obj = context.selected_objects[0]  
        mirror_mod.mirror_object = mirror_obj  
        if _operation == "MIRROR_X":  
            mirror_mod.use_x =  
            mirror_mod
```

SEIZING OPPORTUNITIES:

# Cyber-tech

The opportunity:  
Gloucestershire – exploiting  
our cyber-tech strengths



Cheltenham, as the home of GCHQ, is internationally recognised as the ‘cradle of cyber-tech innovation for the UK’ and its reputation for cyber-tech innovation, including cyber security, is growing globally.

County-wide, Gloucestershire is synonymous with UK defence and security. Some of the world’s largest defence firms are based here, such as BAE Systems Applied Intelligence in Gloucester.

A vibrant SME community in cyber-tech already exists within the county, centred around Cheltenham, and the large number of Gloucestershire businesses within this sector require highly skilled, specialised labour. There is a good base of STEM related employment and talent across the county.

The sector has extensive supply chains, with specialists relocating to the county to take up jobs, and skilled workers leaving large employers to create new high-value start-up enterprises in the local economy.



## Getting the basics in place

Gloucestershire's economy must have the right digital infrastructure and digital skills if it is to drive innovation across all sectors. To become more productive, every part of our economy must keep pace with the demands of technology, technology innovation, and consumer demand, all of which must be underpinned by digital capability and connectivity.

Our ambition is to develop a county-wide test bed where businesses and education can come together to access a wealth of intellectual capital, services and share ideas in a collaborative and trusted community.

## The ripple effect

GCHQ is the UK's national cyber security and communications centre and has created a large pool of skills and talent with benefits that spill over into finance, computing and management consultancy micro-businesses in high-growth sectors.

GCHQ is also involved in engagement initiatives such as the GFirst LEP Entrepreneurship programme in schools, and demonstrations of new technologies at the Cheltenham Science Festival. There is the potential for GCHQ to support talent networks for spinout businesses and engage with local education providers as broader activity around cyber-tech and artificial intelligence (AI) data sectors develops.

## The challenges and risks

The challenges faced by scaling up cyber-tech businesses are well recognised and include access to finance, talent, and new markets; some of which are already being addressed by the comprehensive support delivered through the county's Growth Hub network.

Cyber security, while a component of our overall local cyber-tech and digital capability, is central to our economy in relation to protecting our entire business base. Businesses do not generally see cyber security as high on their list of priorities and as a consequence their data and intelligence are often open to cyber attack.

A recent survey by the Department for Digital, Culture, Media and Sport<sup>12</sup> highlighted that only 36% of businesses have cyber security policies in place.

This situation requires a significant change of mindset by businesses; cyber security must become integral to and part of the design and structure of their products, data sets and intelligence, in order to mitigate cyber risks. This is both a challenge and a business opportunity for Gloucestershire.

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<sup>12</sup> Cyber Security Breaches Survey 2019: - [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/813599/Cyber\\_Security\\_Breaches\\_Survey\\_2019\\_-\\_Main\\_Report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/813599/Cyber_Security_Breaches_Survey_2019_-_Main_Report.pdf)



## Education

At present, 15.4% of young people surveyed have plans to enter the cyber-tech sector showing a good level of interest, with room to grow. 20.4% want to enter the creative industries, which is increasingly likely to incorporate advanced digital skills.<sup>13</sup> Gloucestershire's Higher and Further Education institutions are increasingly seeking to align the courses they offer with the many local opportunities in cyber-tech.

Digital and cyber-tech courses are now available across the county at:

- + University of Gloucestershire;
- + Gloucestershire College;
- + South Gloucestershire and Stroud College;
- + Adult Education in Gloucestershire;
- + Gloucestershire County Council Library Service; and
- + Local independent training providers.

GFirst LEP supports emerging initiatives to encourage greater collaboration between businesses active in the cyber-tech and digital sector, academia, and nationally important institutions such as GCHQ. Collaborative working of this nature will create an environment in which innovation within cyber-tech, artificial intelligence and associated cross-sector businesses will flourish and grow.

The cyber-tech sector is also supported by:

- + the University of Gloucestershire, through both:
  - + its School of Business and Technology; and
  - + C11 Cyber Training facility at Berkeley Science and Technology Park which:
    - + undertakes research and knowledge exchange activities that support innovation;
    - + delivers innovative solutions, courses, training and materials in areas related to cyber-tech and digital, business growth and innovation.

- + Gloucestershire College, which in partnership with the University of the West of England, will offer cyber-tech degrees from September 2019.

- + new Institutes of Technology operating locally which will offer courses in STEM subjects.

We must also look beyond our borders, to seek collaborations with others such as the Universities of Oxford, Bath, South Wales, Cardiff, and Bristol, all of whom are less than an hour from Gloucestershire.

Whilst there can be no doubt that the local education offer across digital and cyber-tech is gaining greater traction, and contributing to the pipeline of talent, this needs to be accelerated in order to not only satisfy current demand but also deliver against projected growth in cyber-tech and the digital economy to ensure there are no barriers to growth and development.

<sup>13</sup> GFirst LEP Magnet County Youth Survey

## Cyber Valley

Cyber Valley, formed by GFirst LEP with neighbouring LEPs in Swindon and Wiltshire, Worcestershire, and The Marches, has the following ambitious objectives:

- + double the size of the cyber-tech and digital sector in the region;
- + position the region as the UK's largest cluster of cyber-tech and digital activity outside London; and
- + promote an entrepreneurial start-up culture, attract new investment, develop talent and embed cyber-tech resilience in firms across all industries.

Cyber Valley has identified that 'there is a strong concentration of skills in cyber security within the region, which can be used to embed cyber-tech resilience through a wider industrial base, including making a strong contribution to the growth of the UK's cyber security sector directly, and supporting industries within which their demand for secure solutions grow the region's economy'.<sup>14</sup>

This has resulted in a 185% growth in the number of registered active cyber security firms across the geography in the ten years leading up to 2017.<sup>15</sup>

The ambition of Cyber Valley extends to promoting an entrepreneurial start-up culture and attracting new investment, which is further supported at a local level with a greater focus on ensuring the infrastructure is fit for purpose and on developing the skills and talent pipeline.



Cyber Cheltenham (CyNam) is a locally-based community interest company whose network acts as a focal point in bringing together ideas and collaboration in the cyber-tech and digital sector. CyNam is the UK's best attended regular cluster event and boosts a 1000+ person strong community from over 100 local businesses.

CyNam brings together cyber-tech SMEs, enterprise technology companies, academia, local and central government departments as well as the investment community and wider supporting industries to fulfil a vision of enabling Cheltenham and Gloucestershire to reach its potential as a globally recognised hub of cyber-tech innovation.

CyNam recently partnered with **Hub8** to create a 7000sq/ft physical incubation and innovation workspace in central Cheltenham, the first purpose-built facility for private cyber tech innovation in the South West.

An additional ambition of CyNam is to demystify cyber security for those who are outside of the sector, educating and enabling the general public and wider businesses to protect their data more effectively. This includes students and children, to also inspire the cyber-tech generation of tomorrow. CyNam has so far drawn on limited private funding through industry sponsors and is run by a Board of Directors featuring Directors of various local cyber-tech companies.



<sup>14</sup> Cyber Resilience Alliance (now Cyber Valley) - Science and Innovation Audit

<sup>15</sup> Source: University of Gloucestershire

# Our Proposition



To exploit Gloucestershire's position as the 'cradle of cyber-tech innovation in the UK' by:

- + drawing upon our local specialism of cyber and digital;
- + building on our investment in 'Cyber Central' – a major new UK cyber-tech business park next to GCHQ, with support from the CyNam<sup>16</sup> network of companies;
- + generating growing numbers of spin-out businesses and a thriving cyber-tech business community; and
- + building on our regional links with the wider 'Cyber Valley'.

GCHQ, the CyNam cluster and the wider cyber-tech sector make up a significant part of the country's cyber-tech intelligence base, which has a huge range of potential applications across multiple business sectors.

The development of cyber-tech business and the creation of new businesses, products and networks across sectors such as agriculture, health and financial services requires access to four key components:



Talent



Funding



Innovation Space



Customers

<sup>16</sup> [www.cynam.org](http://www.cynam.org)

# We want to:

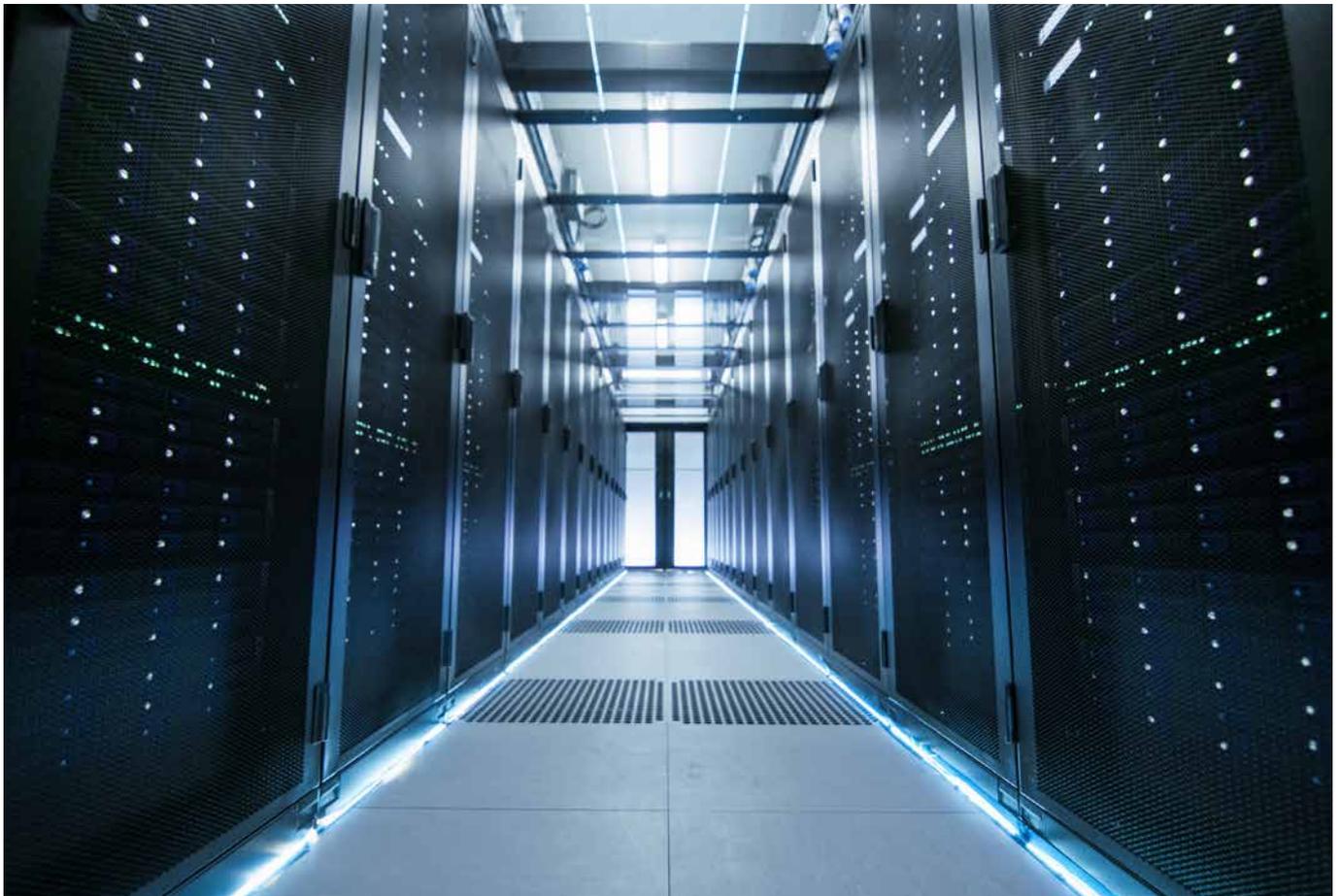
- + ensure that the entire county has access to **fast and reliable digital connectivity**, particularly in rural areas and where there is clustering of cyber-tech businesses, and everyone has the skills and confidence to make the most of it.
  - + attract and retain talent within the county in order to develop and nurture current and future cyber-tech specialists;
  - + deliver the UK's first fully cyber-centric business park – **Cyber Central** – a vibrant business park adjacent to GCHQ in Cheltenham, with integrated housing and other facilities, which will be home to one of the UK's two cyber security innovation centres, and a cyber-tech centre of excellence delivered by academia and business in partnership, with initiatives to engage the cyber-tech supply chain.
- GFirst LEP fully supports:
- + the joint bid by the Universities of Gloucestershire, Cardiff, Bath and Bristol to the Innovate UK Strength in Places fund to support the delivery of these ambitions;
  - + local access to high quality, nationally recognised and accredited training in cyber-tech and digital aimed at adults and young people.
- + lead on a national Cyber Sector Deal with our partner LEPs in the **Cyber Valley** (Worcestershire, Swindon and Wiltshire and The Marches). This will help develop a clear vision for Cyber Central and how to create the right business support environment for the cyber-tech sector in Gloucestershire as part of the broader cyber-tech region.
  - + develop **cyber-tech skills capabilities** in the county to satisfy and then propel the sector beyond 2030 by deepening and broadening the county's skills and innovation environment for cyber-tech, artificial intelligence (AI) and big data.
- This will expand on Gloucestershire College's work with the University of the West of England to launch a degree level cyber-tech qualification and **cyber-centric Institute of Technology**. We will also seek to work with other universities such as Bath, Bristol, Cardiff (ACEs<sup>17</sup>), Warwick, Birmingham and Oxford to provide the higher level skills offer required by this growing sector.
- + As part of our broader education-related cyber-tech plans we will:
    - + seek to attract the highest calibre of national and international **academia** and business to Cyber Central;
    - + create an industry-led cyber-tech **skills centre and visitor experience** at Cyber Central. This would be accessible to the neighbouring community in Cheltenham, which includes some areas of persistent high unemployment and deprivation, to include and inspire local people.
    - + develop young talent in **primary schools**, through a programme of activity that will inspire and inform children about the opportunities offered by the digital economy and lay the foundations for digital skills for life; and
    - + develop our own **Digital Skills Partnership** to ensure that local digital and cyber-tech skills provision is co-ordinated and promoted effectively and there are opportunities for training below degree level and a range of routes to employment in the sector.
  - + raise the profile, priority, and **importance of cyber security** in the minds of cyber-tech and digital businesses, including by promotion of initiatives such as the government's:
    - + Cyber Essentials scheme<sup>18</sup> which enables organisations to be independently certified for having met a good-practice standard in cyber security;
    - + 10 Steps to Cyber Security guidance<sup>19</sup>, which aims to summarise what organisations should do to protect themselves.
  - + We will **promote Gloucestershire's specialism** in cyber-tech on the national and international stage by:
    - + launching 'CyberFest' – a major new cyber-tech focussed festival to be held in Cheltenham, in collaboration with CyNam and the University of Gloucestershire.
    - + create an investment offering which builds on our broad digital infrastructure provision ranging from:
      - + full (future) connectivity;
      - + advances in 5G and beyond;
      - + a business support offer fit for 2030; and
      - + a network of collaborative hubs with a digital specialism, such as CyNam's Hub8 centre in Cheltenham.

<sup>17</sup> GCHQ Accredited Centre of Excellence

<sup>18</sup> <https://www.cyberessentials.ncsc.gov.uk/>

<sup>19</sup> <https://www.ncsc.gov.uk/collection/10-steps-to-cyber-security>

- 
- + create a network of investors and develop a ladder of potential investment opportunities, ranging from venture capital to collaboration with government to design programmes in cyber-tech.
  - + working with Department for International Trade (DIT) to develop Cyber Central as a 'high potential opportunity'.
  - + work with DIT to position Gloucestershire and Cyber Valley to export goods and services to an international business base. This will involve an inward investment offer for the sector and support our target of 10,000 (FTEs) employed in the sector and a 10% growth per annum.





The planned UK cyber-tech park development located adjacent to GCHQ in Cheltenham will encourage new and existing businesses to develop within the Cheltenham cyber-tech cluster.

Cyber Central must be closely linked to GCHQ, connected with data and people, as well as being suitably linked with the county's main centres of Cheltenham and Gloucester. Infrastructure is key, with a need to fully address challenges of congestion on the A40, Cheltenham Spa railway station and the limited entry and exit at junction 10 of the M5 motorway.

GFirst LEP has committed **£22m** towards infrastructure improvements in the vicinity of Cyber Central to unlock the first phases of development at the site.

Cyber Central is expected to host the National Cyber Security Centre's (NCSC's) **National Cyber Innovation Centre**, a dedicated facility to harness government, academic and private sector expertise to develop UK cyber-tech capability and businesses.

The park will also host:

- + a research and education facility for development of cutting-edge research in cyber-tech;
- + zoned space that can cater for different industry requirements;

- + a dedicated hub to house local cyber-tech start-ups originating in part from the NCSC and its innovation centre;
- + larger corporate businesses; and
- + a skills and visitor centre.

This will require a broad-based collaboration across local, national and international academia, including world-leading accredited research universities.

The emerging masterplan for Cyber Central also sets out the need for a residential offering relevant to the local workforce including:

- + hotel and conference facilities - which will be important to establish Cyber Central as an internationally significant venue for the sector;
- + housing and leisure facilities - which will draw talent, particularly young talent, to the park; and
- + ensuring that the local community of West Cheltenham, including some of the most deprived parts of the county, can use the facilities and interact with the Cyber Central community, helping to raise local aspirations about careers in cyber-tech.



SEIZING OPPORTUNITIES:

# Green

The opportunity:  
Gloucestershire – the greenest  
place to live and work in England



## We will capitalise on Gloucestershire’s natural assets and rural environment to make the county the greenest place to live and work in England by:

- + putting clean growth at the heart of our strategies for business growth and our approach to infrastructure investment;
- + building on the capabilities of local green companies and attracting more;
- + working with local planning authorities to encourage sustainable and energy efficient house building that supports green construction;
- + reducing our carbon emissions to **net zero by 2050**, with aspirations to go further and faster; and
- + exploring a mass-transit transport solution that provides a reliable, quick and clean alternative to cars and significantly reduces commuter traffic between the county’s urban centres – potentially forming a vital new link within the Central Gloucestershire City Region.

Gloucestershire sees an opportunity to be the greenest place to live and work in England and a ‘magnet county’ championing natural capital-based growth, creative green business development opportunities, and reducing its carbon emissions to net zero by 2050 or sooner.

By building on our Gloucestershire Sustainable Energy Strategy, we aim to protect and improve our natural environment whilst at the same time exploiting the productivity improvements to be gained by businesses adopting greener approaches.

Going green will not be a barrier to growth – it will enable Gloucestershire to engage in the renewable and clean energy market and provide opportunities for individual businesses to reduce energy consumption and save money to reinvest to improve productivity. It will also improve the county’s resilience to the effects of climate change as it happens.

In our consultation with young people, the landscape and natural environment emerged as important attributes connecting young people to Gloucestershire, with the word ‘Countryside’ appearing most often in response to what young people like most about living in the county. Over 58% of those surveyed say that ensuring the environment is well looked after for everyone to enjoy now is ‘very important’ to make Gloucestershire a ‘magnet county’ with a further 26% saying it is ‘important’. Climate change was the top concern when asked what worries them about the future, and over 80% think that we should be using more renewable and cleaner energy sources to tackle it.<sup>20</sup>

In response to this and in order to achieve our aspiration to be a ‘magnet county’ we will:

- + protect, restore and promote our green assets and natural environment;
- + strive to reduce carbon emissions to net zero by 2050, with aspirations to go further and faster; and
- + adapt to any changes in climate that are already inevitable.

<sup>20</sup> GFirst LEP Magnet County Youth Survey

## Delivering growth

To secure both our distinctiveness and the critical infrastructure and services required to deliver growth we will work with local businesses to develop commercially viable innovations and, building on our Gloucestershire Sustainable Energy Strategy (GSES), promote the productivity gains to be made by adopting energy efficient approaches in homes and businesses.

The GSES cites these energy efficiencies as being worth up to £250m off the county's collective energy bill and a 20% productivity gain, and a further £400m value to the local economy if Gloucestershire businesses deliver the work needed.<sup>21</sup>

All of Gloucestershire's business sectors have a role to play in ensuring that green technologies and skills are developed to keep our green and blue infrastructure on the cutting edge of new ideas.



<sup>21</sup> Gloucestershire Sustainable Energy Strategy

<sup>22</sup> Building with Nature was developed and is based in Gloucestershire

<sup>23</sup> Source: Tewkesbury Borough Council

<sup>24</sup> Local Transport Plan review

## Affordable, sustainable 'green' housing

Being a 'magnet county' will mean ensuring young people will have affordable and sustainable housing to live in. Gloucestershire's future **garden towns and villages** will put green energy and green construction at the heart of their design.

These developments have been identified in:

- + Tewkesbury at the Tewkesbury Garden Town;
- + Cheltenham at the Cheltenham Garden Village; and
- + Stroud district at the Sharpness Eco Village.

These will be sustainable settlements that meet the nationally recognised Building with Nature<sup>22</sup> benchmark (developed in Gloucestershire) for green infrastructure, delivering green affordable development with good clean transport connections, encouraging active travel and ensuring we maintain our natural assets.

Tewkesbury Garden Town, in the M5 Growth Zone, will provide opportunities for new developments and productive businesses. It promises to deliver £74m in GVA and 3,300 jobs with no taxpayer expense.<sup>23</sup>

These planned garden town and village developments allow us to be innovative with design and master planning to create a heightened sense of community. As part of these proposals we must ensure that rural communities are better connected, and public transport significantly improved, including the provision of cleaner vehicles. This will allow Gloucestershire to reduce its carbon output and conserve and restore the environment.<sup>24</sup>

Preserving our high-quality landscape whilst recognising the need to deliver affordable homes for young people and those on lower incomes is key, and will help protect the county's tourism sector.

We will act as champions for research and development to encourage the necessary change of mind-set to achieve green housing and infrastructure delivery, both in terms of new developments and retrofit of existing housing stock. This builds on existing local initiatives such as Stroud District Council's "Sustainable Construction & Design Checklist".



## A natural capital approach to growth

*By natural capital we mean our stocks of natural assets which include geology, soil, air, water and all living things.*

A natural capital approach to growth is critical to acting upon Climate Change and Ecological Emergency declarations and integral to the following government policies:

- + A Green Future: Our 25 Year Plan to Improve the Environment;
- + Industrial Strategy: Building a Britain Fit for the Future;
- + Revised National Planning Policy Framework; and
- + emerging Environment and Agriculture Acts, including mandatory biodiversity net gain and ecological networks.

Gloucestershire's economy and quality of life is fundamental to the county achieving its objective of being a 'magnet county', as the focus on people, planet and profits (the 'triple bottom line') is increasingly becoming the way organisations attract and retain employees, and many aspects depend on the county's biodiversity and natural capital and the services they provide.

Natural capital can unlock environmental constraints to growth and productivity. Good management of natural capital is essential to building resilience of existing economic activity against the impact of climate change, which will, for example, include flooding and unpredictable water provision.

Failing to account for natural capital can undermine productivity growth<sup>25</sup>. Much evidence supports investment in natural capital, such as:

- + improvements to public green infrastructure delivering 300% increase in employment and visitor numbers<sup>26</sup>;
- + investment in natural capital through green infrastructure reducing absenteeism by up to 19%<sup>27</sup>; and
- + a return on investment for large Local Sustainable Transport Fund (LSTF) projects of at least 5:1<sup>28</sup>.

Our investment in green infrastructure and natural capital will:

- + make Gloucestershire more attractive to inward investment; and
- + improve wellbeing, leading to productivity gains, and help us to attract and retain young people.

25 Brandt, Nicola, Paul Schreyer, and Vera Zipperer. "Productivity measurement with natural capital." *Review of Income and Wealth* 63 (2017): S7-S21.

26 Lawlor, E. (2013.) *The Pedestrian Pound: The Business Case for Better Streets & Places*. United Kingdom: Living Streets & Just Economics Report

27 <https://www.theguardian.com/lifeandstyle/2013/mar/16/this-column-change-life-nature-nurture>

28 [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/416826/cycling-and-walking-business-case-summary.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/416826/cycling-and-walking-business-case-summary.pdf)

## Ecosystem services<sup>29</sup>

Ecological restoration will prevent the collapse of ecosystem services and a subsequent loss of economic productivity, particularly in agriculture<sup>30</sup>.

As well as their important role in carbon sequestering, rural areas are an increasingly important provider of ecosystem services in terms of water. Our farmland prevents flooding and ensures water is available to support growth. Defra, Ofwat, the Environment Agency and others encourage land management, putting farmers at the heart of our water system<sup>31</sup>.

## Integrated Environmental Mapping Tool

Gloucestershire Local Nature Partnership has, with its partners, developed an Integrated Environmental Mapping Tool (IEMT) which combines mitigation and improvement and proactively considers growth opportunities to make existing situations better for people, places and the environment. The tool can be used as part of a wider strategy and helps to:

- + inform policy development and procedural processes; and
- + provide a strategic framework for delivery of growth that utilises and enhances the county's natural assets.

Our natural assets provide a wide range of services essential to society and the economy and must be safeguarded. Through investment in green infrastructure, we can help to square this circle, since this approach allows development to take place in ways that work with nature<sup>32</sup>.

## Reliance on fossil fuels

Gloucestershire is currently reliant on fossil fuels, contributing 85% of the energy supply.<sup>33</sup> However, there is collective enthusiasm to deliver the GSES, which plans to reduce carbon emissions to net zero by 2050 at the latest by:

- + supporting more in-county renewable energy generation;
- + decarbonising heat;
- + engaging with the local forestry and agriculture sector as potential sources of renewable heat; and
- + ensuring energy efficiency remains high on the agenda.



<sup>29</sup> The benefits that humans gain from the natural environment and properly functioning ecosystems.

<sup>30</sup> Aizen et al (2009) How much does agriculture depend on pollinators? Lessons from long-term trends in crop production. *Annals of botany*, 103(9), pp.1579-1588.

<sup>31</sup> Gloucestershire Agri-food and Rural Economy Report – March 2019

<sup>32</sup> Gloucestershire Green Infrastructure Pledge

<sup>33</sup> Gloucestershire Sustainable Energy Strategy January 2019

## Renewable energy potential

Gloucestershire currently has a lack of grid capacity<sup>34</sup>, which is needed to deliver its clean growth ambitions. However, the county has both the potential and commercial capabilities to expand renewable energy. We are already working to tackle fuel poverty,<sup>35</sup> largely through the successful 'Affordable Warmth Partnership' that, since its creation, has brought over £30m to the county to tackle fuel poverty.

The GSES is being monitored by the GFirst LEP Energy Business Group many of whom are local specialists green energy businesses such as:

- + Ecotricity;
- + Hermes Energy Services;
- + KIWA Ltd;
- + McKerrow Engineering;
- + Schneider Electric;
- + Severn Wye Energy Agency;
- + Spirax Sarco; and
- + Western Power Distribution.

## Heritage properties and specialist skills

With double the national average number of listed buildings, Gloucestershire has ambitions to develop exemplary low carbon retrofit projects for heritage property.

There is increasing demand for skills that can address some of the requirements of the construction sector, particularly in terms of retrofitting existing housing stock with energy efficient features and this is reflective of a growing demand for skills across the 'green' economy.

There is a small cluster of expertise in skilled 'heritage' trades within the county with a focus on strong craft traditions; we believe this could be harnessed to deliver green solutions to our stock of older homes, encouraging skills development through apprenticeships.

## A local green skills and business hub

Companies active in green technology are co-located alongside STEM learners at Berkeley Science and Technology Park in the south of the county, creating exciting opportunities to develop and exploit Gloucestershire's green talent pipeline and benefitting from £10m investment by GFirst LEP.

South Gloucestershire and Stroud College (SGS) has opened its GREEN (Gloucestershire Renewable Energy, Engineering and Nuclear) skills centre, which has a STEM skills, engineering and green energy focus, is closely linked to local businesses, and offers both A-Levels and apprenticeships. SGS also teaches the skills required in the nuclear industry - essential for the clean growth potential of the country as many of the existing workforce approach retirement age.<sup>36</sup> The University Technical College, also located on the park, offers learners the opportunity to extend their learning to degree level.

Ecotricity are also leading plans for a world-class low-carbon stadium and employment hub nearby at junction 13 of the M5. The Eco-Park will create up to 4,000 new jobs, with a focus on attracting companies from the growing green economy in Gloucestershire and beyond.



<sup>34</sup> Ecotricity LIS call for evidence submission

<sup>35</sup> Gloucestershire Sustainable Energy Strategy January 2019

<sup>36</sup> Systra Gloucestershire Connects Phase 1 report

# Our Proposition



Our ambition is to:

- + become the greenest place to live and work in England;
- + protect and strengthen the biodiversity of the county;
- + maintain and enhance the quality of the natural environment;
- + reduce our carbon emissions to net zero by 2050, with aspirations to go further and faster;
- + attract and retain young people to our green ‘magnet county’; and
- + focus on actions and policies that protect the environment and realise its potential.

# We want:

- + to establish Gloucestershire as the **leader in sustainable growth** by developing a comprehensive **natural capital baseline** to determine the most effective ways to invest in protecting, maintaining and enhancing our natural capital assets and ecosystem services.
- + to develop **enhanced assessment criteria** for all LEP-funded projects, placing environmental sustainability, biodiversity net gain and carbon reduction at the heart of all projects.
- + to work with key local stakeholders to **push the boundaries on green development**, to ensure future housing and infrastructure developments in the county are built to Green standards and deliver a net gain in biodiversity; this will build on existing commitments to the Building with Nature standard developed by Gloucestershire Local Nature Partnership, with potential to develop a **Gloucestershire Future Homes Standard**.
- + to develop a **Green Planning Framework** to ensure planning powers are used to achieve our Green ambitions, building on work by the GFirst LEP Construction and Infrastructure business group to improve the planning system in the county.
- + to work with the Gloucestershire Local Nature Partnership to identify opportunities to invest in nature-based solutions to capture carbon – which can be 42% cheaper than engineering solutions<sup>37 38</sup> whilst also delivering broader social benefits.
- + to **accelerate retro-fitting** of low carbon measures on Gloucestershire’s existing housing stock and develop a national reputation for retro-fitting low carbon measures in housing.
- + to create a local **Green Construction** website and directory of businesses and link these to major house builders for both new builds and retrofits.
- + to engage with Sub-National Transport Bodies Midlands Connect and the Western Gateway to determine how to achieve a switch to **clean public transport methods** across the wider region.
- + to create a network of **electric vehicle charging points** across the county, including in rural areas.<sup>39</sup>
- + to work with the private sector across energy, construction and development to understand decarbonisation within each sector and take a lead nationally in developing the understanding, skills, techniques and technologies to deliver **fossil free heat**.
- + to continue to encourage companies to reuse and recycle and promote a flourishing **circular economy** and related services in the county.
- + to deliver a vibrant business and education offer at **Berkeley Science and Technology Park**, as a hub for future low-carbon technology innovators. This will work in tandem with a proposed future **Eco-Park** at junction 13 of the M5, creating a vibrant hub for green technology and skills in Stroud district.
- + to support the food and farming industry to adapt and diversify, pioneering smart solutions and the transition to **sustainable food systems**.
- + to work towards achieving a **net-zero carbon economy** through support and grants for new innovations and diversification that support soil health, carbon capture, connected ecosystems, food quality and welfare, efficiency, value and sustainability.
- + to promote programmes which support the provision of **advice, guidance and funding for SMEs** to become more environmentally sustainable.



<sup>37</sup> Griscom et al (2017). Natural Climate Solutions. Proceedings of the National Academy of Sciences 114, 44, 11645-11650.

<sup>38</sup> International CSS Knowledge Centre (2018). Summary for Decision Makers on Second Generation CCS

<sup>39</sup> Gloucestershire’s Local Transport Plan

# The Five Foundations of Productivity

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# Ideas

Building on a strong track record of innovation  
across established and emerging sectors



# Innovation

## Gloucestershire: the hidden innovation capital of the UK

Innovation is essential as it both contributes to productivity and provides the basis for business growth through the development of new market opportunities, including exports. Research has also linked innovation positively to resilience: innovating firms are more likely to be able to adjust when market conditions become more challenging.

Gloucestershire has a strong background in innovation activity, with highly innovative businesses in cyber-tech, agri-tech, and high-tech engineering such as in manufacturing services and aerospace, all of which have strategic importance to the county.

New, highly innovative businesses are supported at the early stages of their life through the county's Growth Hub network, helping businesses innovate and grow to boost Gloucestershire's productivity.

## The current landscape

Local research and development (R&D) expenditure in Gloucestershire is over 3.3%<sup>40</sup> of its GVA against a national target of 2.4% of GDP, which translates as approximately 2.69% GVA, meaning that Gloucestershire is already far exceeding the government's target.

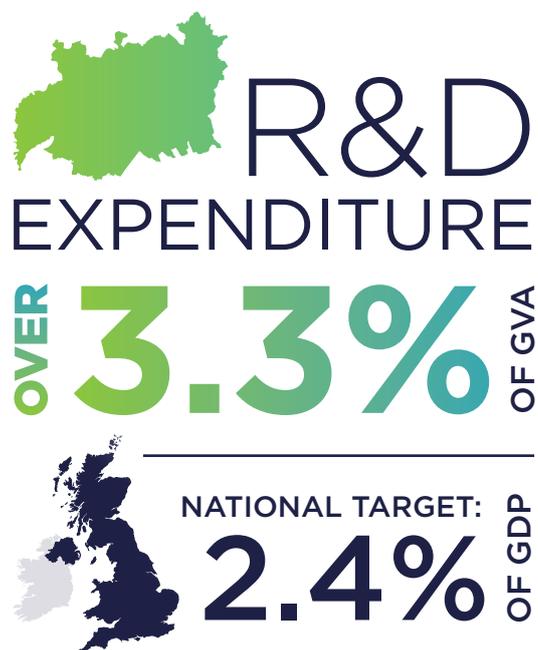
Local specialisms and innovation capabilities play a crucial role in designing the support needed to sustain and continue to grow this investment. Similarly, the county's innovation activity level is strong, with 70.3% of businesses in the county being 'innovation active', compared to the national average of 55.1%.<sup>41</sup> Gloucestershire is ranked second of all LEPs in the country, behind only Cheshire & Warrington.

Gloucestershire has a slightly above average rate of employment in STEM roles<sup>42</sup>, at 7.5% of total employment compared to a 7.2% average for England. However, this is a lower percentage of total employment when compared to many of Gloucestershire's LEP neighbours, particularly Oxfordshire and the West of England.

The Queen's Award for Enterprise is a highly prestigious award given out every year to UK businesses. In the category of award for innovation, Gloucestershire's businesses perform very well, with 10 having received 17 awards since 2012, representing 4% of the total awards in this category over this period.<sup>43</sup>

Despite this the county has historically low levels of Research Councils UK (RCUK) investment.

GFirst LEP has £1.48m of European funding allocated for innovation projects, producing a total investment in the county of close to £3m. Projects supporting product development and agri-tech are already delivering, with the final investments to be determined soon. This demonstrates Gloucestershire's continued commitment to supporting innovation, enabling businesses in target sectors to benefit from EU funding for innovation and tackle the productivity challenge.



<sup>40</sup> Smart Specialisation Hub report 'What does the 2.4% of GDP R&D expenditure target mean for Places', January 2019.

<sup>41</sup> <https://www.gov.uk/government/publications/uk-innovation-survey-2015-analysed-by-local-enterprise-partnerships>

<sup>42</sup> STEM roles being defined here as science, research, engineering and technology professionals and science, engineering and technology associate professionals.

<sup>43</sup> <https://www.thegazette.co.uk/all-notices/content/101145>

# Local capabilities and assets

Gloucestershire has a number of **local innovation active businesses** with a strong history of innovation investment and generation of new products, services and ideas.

These include:

- + GE Aviation Systems, Moog and Safran (aerospace);
- + Renishaw (precision engineering); and
- + Versarien (advanced materials specialising in graphene).

Historically, some **key industrial capabilities** in the county are the result of cumulative local innovation. UK open patent data identifies that 2,618 patents were filed by Gloucestershire businesses up to July 2018<sup>44</sup>, mostly in:

- + advanced engineering, with critical mass in hydraulics and electronics;
- + fluid pumps and valve systems related to the supply chains for the manufacturing of undercarriages for aviation; and
- + the production of drilling, mining and pumping equipment.

In addition, there has been considerable investment in local businesses by **Innovate UK**, with 429 projects having received funding since 2004, totalling over £168m co-investment.<sup>45</sup>

**Manufacturing and engineering businesses** offer a mature and consistent level of innovation within Gloucestershire. Locally, many of these businesses develop low profile but essential component parts for a diverse range of products and purposes. The benefits of these businesses should not be understated; they are a stable source of research and development and produce significant benefits across the county and further afield.

The recently opened **UK Digital Retail Innovation Centre** in Gloucester (UK:DRIC) is the national centre for testing and developing disruptive digital innovations in retail and promoting digital skills capability in the sector and beyond,<sup>46</sup> while Cyber Central in Cheltenham will offer an opportunity for clustering and collaboration between highly innovative cyber-tech businesses.<sup>47</sup>

GCHQ is at the forefront of cyber security in the UK, and this presents opportunities for people and ideas spinning out of GCHQ into local businesses and start-ups. These businesses are at the forefront of high-tech research and development into opportunities such as artificial intelligence and big data, which promise to revolutionise the economy.

Gloucestershire is also the home of two specialist agricultural universities: the Royal Agricultural University and Hartpury University and College, as well as Campden BRI, a world-leading research organisation providing practical scientific, technical and advisory services to ensure product safety and quality, process efficiency and product and process innovation for the food sector.

There is huge potential for Gloucestershire to capitalise on the **green revolution** through locally based research and innovations.

- + Gloucestershire Airport is committed to reducing emissions from all its operations and is positioning itself at the forefront of green aviation technology research and adoption, working with partners to conduct research into electric flight and drone technology developments.
- + Local companies such as Ecotricity and Green Fuels are at the forefront of innovation in:
  - + renewable fuel sources;
  - + hydrogen;
  - + SMART grid/battery storage; and
  - + electric vehicle charging.



<sup>44</sup> Gloucestershire Five Foundations of Productivity Evidence Report

<sup>45</sup> Gloucestershire Five Foundations of Productivity Evidence Report

<sup>46</sup> <https://www.ukdric.org/>

<sup>47</sup> Gloucester City Council LIS call for evidence submission



Gloucestershire Science and Technology Park at Berkeley is a key location bringing together education and business, and is:

- + focusing on STEM and engineering;
- + developing pioneering technology;
- + researching 'green' aviation fuel and smart energy;
- + building collaborations with Brunel University; and
- + expanding on-site with new Innovate UK funding.

However, to fully benefit from our unique position in these industries, and achieve our aim of being a **'magnet county'** we must:

- + ensure we attract and retain young talent;
- + encourage the take-up of relevant courses to produce the innovators of the future; and
- + publicise new technology in an engaging way.

It is essential we get young people interested and excited about the innovations that are already emerging within the county, through exposure to engineering, green industries, and other technologies.

# We want to:

- + Develop stronger and deeper partnerships between academia and the business support environment to deliver **holistic support for SMEs**, helping them develop and grow, whilst also providing them with the space and access to academic knowledge essential to successful innovation.
- + Through the county-wide reach of the Growth Hub network, create an **Innovation Factory** to bring our multi-disciplinary entrepreneur and business community together with our local innovation assets including:
  - + Royal Agricultural University including Farm491;
  - + Hartpury University & College;
  - + Campden BRI;
  - + University of Gloucestershire; and
  - + Countryside and Community Research Institute (CCRI).
- + The Innovation Factory will drive innovation through collaboration, creativity and peer to peer knowledge exchange with a focus on solutions – a meeting of minds within an inspiring environment where research and new ideas drive dynamic project development, resulting in productivity growth and ensuring Gloucestershire’s strength in research and development extends throughout our innovative companies.
- + Part of the offer will be delivered through **‘Innovation Labs’** which will house 3D solid modelling software and a 3D printer to support rapid prototyping; the first of these has been opened at Coleford Library in the Forest of Dean, funded through the Local Growth Fund.
- + Develop and establish **Cyber Central**, which will offer many benefits for businesses in the cyber-tech sector. The National Cyber Security Centre (NCSC), part of GCHQ, offers support and advice to businesses in the security sector. As part of NCSC, **a national innovation centre** will work with private businesses to help them innovate in this sector.<sup>48</sup>
- + Seek funding for an Academy centre under the **Strength in Places** bid as part of the cyber-tech Wales and West bid, which offers £30m of revenue and £10m of capital investment over the next three years. This project has GFIRST LEP’s full support; it will bring together academics, businesses and learners to support collaborative innovation alongside skills development for the sector.
- + Develop an effective mechanism to link bidders with local influencers and government to increase future levels of investment in new ideas in the county.



48 GCHQ LIS submission



# Agri-tech

## Innovation: agri-tech's strategic importance to Gloucestershire

Agriculture has long been part of the Gloucestershire landscape.

- + Over 70% of the county is agricultural land;<sup>49</sup>
- + Gloucestershire has a food and agriculture sector valued at nearly £1.5bn; and
- + the sector supports 50,000+ jobs in the county, and has double the national proportion of activity.<sup>50</sup>

49 Source: National Farmers Union South West

50 The Scale and Impact of the Farming, Food, Drink & Rural Economy in Gloucestershire, Collison et al, March 2019

Photo Credit\_ Jack Wiseall (3)



## The current landscape

Gloucestershire is blessed with two highly innovative and agriculturally focused universities, and one world-leading agri-food research organisation:

- + Royal Agricultural University
- + Hartpury University and College; and
- + Campden BRI – the world-leading agri-tech research organisation.

This is a county with a distinctive strength in advanced agri-tech.

Farm491 is the largest agri-tech incubator in the country and has developed rapidly over the last year to provide space for agricultural businesses to research, test, and grow from high-spec facilities including 491 hectares of farmland.

Through academic advice, support and collaboration with the South West AgriTech Network and organisations such as Campden BRI, Farm491 has helped to incubate agri-tech businesses across the county.

Hartpury University and College offers accelerator space for companies to trial agri-tech products which utilise artificial intelligence, robotic test beds and data management and provides access to wider digital experts, fuelling collaboration between sectors.

Much of the incubation and accelerator opportunities within the county are virtual, and therefore offer support to businesses based outside of Gloucestershire – encouraging companies to relocate to Gloucestershire as they scale up<sup>51</sup>.

The presence in the county of a nationally significant research institution such as Campden BRI provides Gloucestershire's fledgling agri-tech businesses with a unique opportunity to revolutionise farming techniques and processes, building on the distinctly rural character of the county.

Farm diversification and other changes in the sector will provide further opportunities for growth and productivity improvements which, given the county's strength in innovation, means the emerging agri-tech sector is of strategic importance to Gloucestershire.

Whereas most agri-tech investment focuses on increasing yield and reducing farm production costs, advanced agri-tech goes far beyond this by:

- + including the whole system, from soil to sewer;
- + driving commercial and public value;
- + focusing on adding value through digital systems; and
- + recognising that technical and social innovation go hand in hand.

<sup>51</sup> Farm491 LIS call for evidence submission



## The trend for agricultural diversification

Alongside our strong local institutional innovation assets, the trend in our local economy is for diversification of farm land to provide alternative non-agricultural employment space that supports potential for co-location, micro-clustering and cross-sector collaboration in rural districts.

According to Defra, Areas of Outstanding Natural Beauty (AONBs) such as the Cotswolds tend to see the highest rates of diversification. When combined with very high levels of home working this suggests future potential for alternative types of employment land providing opportunities for co-location.



## Local capabilities and assets

Assets at a local level build on the LEP's investment in Farm491 which, has grown rapidly to become the UK's largest agri-tech incubator. It provides critical academic support to agri-tech start-ups, helping them develop and progress fledgling early-stage ideas.

Campden BRI is a world leader in the agri-tech sector supporting companies with practical scientific, technical and advisory services and actively looking at opportunities for collaboration with agri-tech businesses and academic institutions within Gloucestershire.

Hartpury University and College is also at the heart of innovation in the agricultural sector, with its 'Tech to Plate' agri-tech centre due to open in August 2019, providing farming professionals with access to the latest livestock technologies, expertise and ideas.

Utilising these local assets will support the development of policy at a local, national, and international level, building on:

- + UN Sustainable Development goals;
- + National Food Strategy being developed for Government by Henry Dimbleby;
- + the government paper: A Green Future: Our 25 Year Plan to Improve the Environment
- + RSA Food, Farming and Countryside Commission;
- + the National Farmers Union's commitment to net zero; and
- + the county's ambition to develop a Food Strategy for Gloucestershire.

Improved ties with both academic research and research and development will support the sector to achieve its overall ambitions.

With 15% of Gloucestershire's workforce in agri-food<sup>52</sup>, and over 70% of its land in agriculture, productivity and added value in the sector will benefit the county's people, communities and natural capital.

52 The Scale and Impact of the Farming, Food, Drink & Rural Economy in Gloucestershire, Collison et al, March 2019

# We want to:

Address a global challenge in agriculture requiring transformative innovation in:

- + logistics;
- + processing;
- + food service;
- + retail;
- + monitoring;
- + traceability; and
- + management.

We have world-class expertise in all of these areas – from food safety to monitoring animal welfare – and a fast-growing reputation for incubating and applying innovation.

Our commitment to this proposition will make Gloucestershire **a testbed for agri-tech innovation**, powering efforts by businesses, governments and communities across the world.

To achieve this, our aim is to create a **healthy circular economy in food and farming** that cools the climate, builds natural capital, and reduces food-related illness – placing Gloucestershire as the first place in the world to do so.

## Global reach

## Local benefits



We will achieve this by:

- + **attracting global attention**, local and inward investment and innovation in advanced agri-tech, applied in the county to benefit our people, businesses and landscapes; and
- + **inspiring engagement** across a wide range of businesses, and public and third sector partners, alongside our growing agri-tech sector.
- + investing in the creation of an **advanced agri-tech hive**<sup>53</sup>, a virtual innovation cluster that builds on previous GFirst LEP investment in agri-tech and cyber security to develop a hive that attracts global investment. We will do this by:
  - + coordinating business development;
  - + delivering foundation projects to incubate solutions for international consumption;
  - + utilising this knowledge, research and trial hub, develop the protocols, systems and evidence for new models of 'net zero' farming;
  - + developing transferable networks for peer-to-peer data sharing, innovation and knowledge exchange that enables productivity and resource efficiency on farms;
- + creating partnerships between Further Education (FE), Higher Education (HE), and commercial training providers to develop technical and business skills;
- + accelerating the development of dynamic procurement platforms with traceability, sustainability, origin and ingredient credentials; and
- + working with other nationally and internationally recognised FE and HE institutions to close the digital and technical skills gap in food and farming, attracting and developing talent in Gloucestershire.
- + exploiting improvements in connectivity, transport and storage solutions to enhance the opportunities of this investment to benefit local farms, food businesses and communities; and
- + engaging with Local Authorities, Local Nature Partnership and community initiatives, to ensure that our plans complement other relevant initiatives, such as Gloucestershire's emerging Health and Wellbeing Strategy<sup>54</sup>.

**Our partners in this initiative will be:**



Royal Agricultural University's (RAU) Farm491: agri-tech incubation for start-ups



Hartpury University and College's 'Tech to Plate' agri-tech centre: agri-tech solutions



RAU: sustainability, farmer innovation, enterprise;



Campden BRI: technical excellence in the food and drink supply chain;



University of Gloucestershire: business and cyber-tech security



Countryside and Community Research Institute (CCRI): rural development, innovation, and governance.

<sup>53</sup> This is a working title

<sup>54</sup> Gloucestershire Health and Wellbeing Strategy - Gloucestershire County Council



# People



Building the workforce of the future  
and boosting earning power for  
everyone by improving skills



It is essential that businesses have access to people with the right skills to support high quality productive jobs. Gloucestershire can benefit hugely by promoting its attractiveness to everyone as a place to live and work and be a ‘magnet county’ that **attracts and retains young talent and supports all its residents to live life to the full.**

Gloucestershire aims to be a place where high-quality education, training, and support can equip people with the skills they need in a growing high-value economy; it’s also a place where, by supporting inclusive growth, there are job opportunities for all – no-one is left behind.

Developing and sustaining Gloucestershire’s highly skilled workforce, including attracting and retaining new graduates, will be essential to raising productivity.

# The current landscape

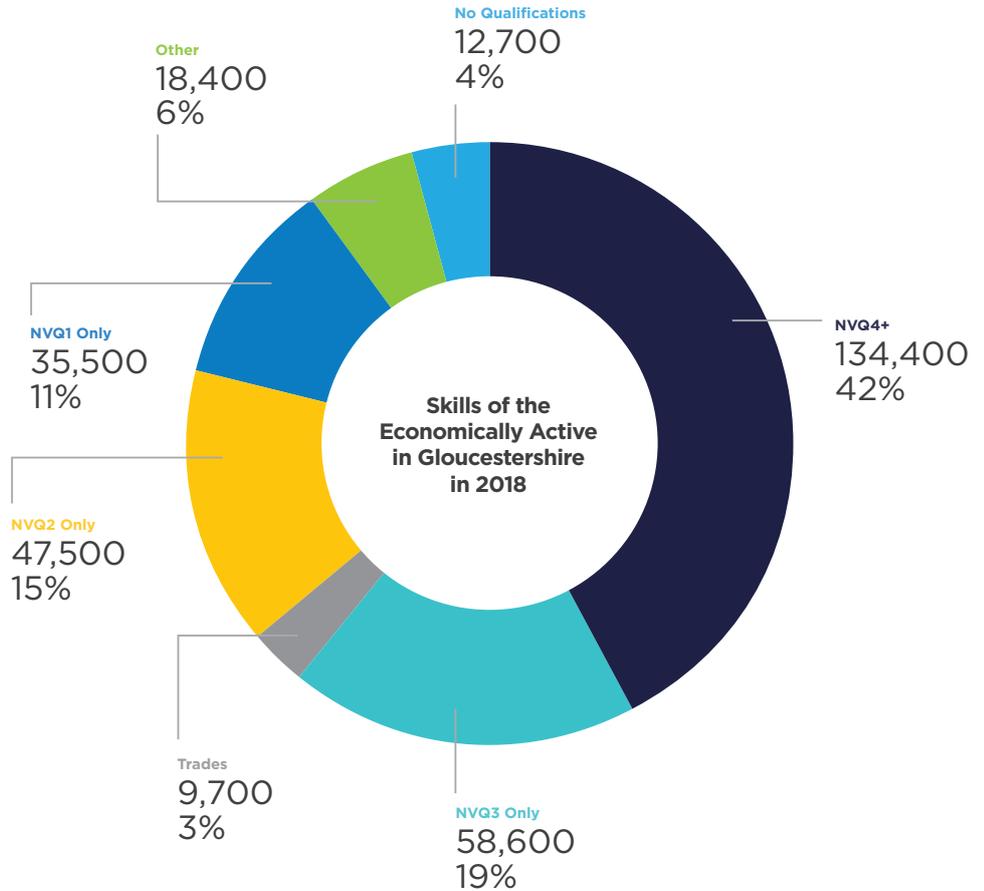
Gloucestershire has a working age population of 327,100 and an employment rate of 82%<sup>55</sup>. This high rate of employment does not translate into particularly high wages, with a significant proportion of the local population employed on lower wages, and the proportion of people in full time employment below the South West and national average.

Of the economically active workforce in Gloucestershire, 42% (134,400 people) have a skill level of NVQ4+ (or equivalent) – above the average for the South West (41.9%) but below the average for England (43.5%). Cotswold district has the highest number of residents with degree level qualifications, while Cheltenham offers the largest number of jobs at this qualification level<sup>56</sup>.

In terms of low skills, only 4% of the county's economically active workforce (12,700 people) have no qualifications, a figure which is already below average and falling; the remainder comprises those with trade apprenticeships or other qualifications.

The largest age group in Gloucestershire is those aged 50–64, with the largest number of people being around age 50–52. Conversely, Gloucestershire has a small population of 20–24-year-olds compared to the national average and is a net exporter of 18–24-year-old full time students.

Gloucestershire has a higher incidence of firms reporting vacancies than nationally and regionally – with 28% of firms reporting at least one vacancy<sup>57</sup> and 43% of these classed as 'hard to fill'.<sup>58</sup>



## Incidence of firms reporting vacancies



Replacement demand has been highlighted as a key concern. Businesses need to have people ready with the necessary skills to take the place of those skilled workers leaving businesses.

55 This is above the South West (78.7%) and National Average (75.4%).

56 For other qualification levels, 58,600 people, or 19% of the workforce have a skill level of NVQ3, 47,500 or 15% of the workforce have a skill level of NVQ2, while 35,000, or 11% have a skill level of NVQ1.

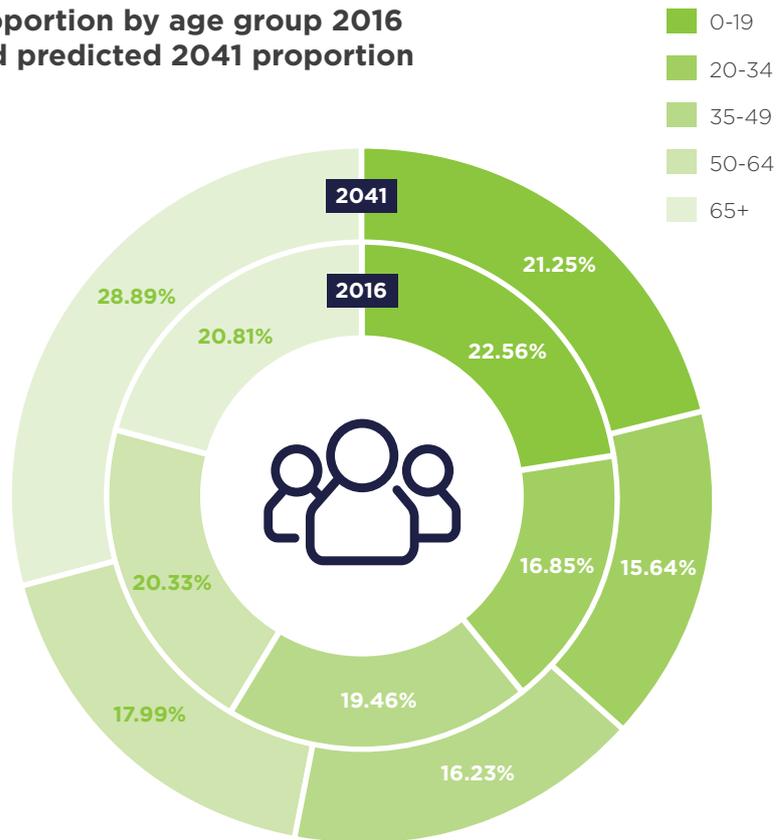
57 20% nationally and 21% in the South West region

58 Gloucestershire Five Foundations of Productivity Evidence Report

## An ageing population

Gloucestershire has an ageing population, with a 59% increase in the over-65 age group expected by 2040, growth not currently predicted to be matched by any other age group. Around 93% of the population of the county are UK nationals, with around 50% of non-UK nationals from the EU. The county has an average life expectancy at birth of just under 84 years for women and 80 years for men, above the national average but below neighbouring areas such as Worcestershire and Oxfordshire.<sup>59</sup>

## Proportion by age group 2016 and predicted 2041 proportion



## WANTED: MORE YOUNG TALENT

There is a shortage of young talent in the county, which is impacting on manufacturing and engineering specialisms despite the high levels of STEM qualifications. It is essential that pipelines for new talent into these roles are established as a priority, including further support for apprenticeships to encourage young people to move into these sectors. Good jobs, that pay the bills and allow flexibility to enjoy leisure and family time, are important to young people in Gloucestershire.<sup>60</sup>

The fact that many young people leave the county to attend university and do not return, places Gloucestershire in the bottom half of LEPs for graduate retention; this has triggered our ambition to position Gloucestershire as a 'magnet county' that **attracts and retains young talent and supports all its residents to live life to the full**, and in particular with:

- + a growing working age population; and
- + more 18-40 year-olds with high level qualifications choosing to live and work here.

This strategy will include the continued promotion of Gloucestershire's suitability and attractiveness to young families and professionals, particularly around the 30-40 age group, and will build on the need to attract younger people to the local housing market and enable those aged 18-30 to more easily buy or rent property.

<sup>59</sup> Gloucestershire Five Foundations of Productivity Evidence Report

<sup>60</sup> GFirst LEP Magnet County Youth Survey

## Work readiness

Ensuring that students have the skills needed to succeed in the workplace and are work ready is essential, however businesses suggest that many lack key skills when leaving education, and that this has a major effect on their employability.

To address these issues we will continue to develop employability skills programmes in schools and colleges, including those delivered by the GFirst LEP Education & Skills Team and funded by The Careers and Enterprise Company, as well as the 'soft skills' programmes run by The Growth Hub network.

## Introduction of T levels

Gloucestershire College will offer T levels in the Digital, Construction and Health and Science sectors from September 2021 in response to local requirements and in support of students who have completed their GCSEs and choose to take a T level qualification, a new two-year course equivalent to three A-levels and combining academic study with industrial experience split roughly 80/20.

From 2020 Cirencester College will offer T levels in the Digital, Construction, and Education and Childcare sectors.

A key component of T levels is the extensive industry placement, enabling students to gain fuller knowledge, skills and understanding of the sector(s) they want to work in. GFirst LEP strongly supports the development and co-ordination of a wide range of managed, high-quality work and industry placements and experience. This exposure to and links with local businesses will help retain more young people in the county and provide employers with access to the local labour market.

## Flexible working

Just over 19% of jobs in Gloucestershire are advertised with a flexible working option, which is already ahead of the South West region at 18% and the UK at 15%<sup>62</sup>, but as many as 87% of people nationally want to work flexibly<sup>63</sup>. 67.5% of young people surveyed believe that flexible working will be important to them in the future.<sup>64</sup> Flexible working is a means of improving productivity through improved mental health, better workforce diversity, reduced commuting time and lowering cost of travel, and should be central to a firm's recruitment practices.



61 Higher Education Statistics Agency

62 Analysis derived from Burning Glass labour market data for January to December 2018

63 Timewise Index Flexible Working Report

64 GFirst LEP Magnet County Youth Survey of over 5000 young people

## Local capabilities and assets

Higher and Further Education establishments in the county offer courses designed to address Gloucestershire's skills shortages.

Our three universities, Hartpury University and College, Royal Agricultural University and the University of Gloucestershire, provide high-quality degrees for over 13,000 students<sup>61</sup>, acting as a pathway for new talent into specialisms such as cyber-tech and agriculture.

In addition, Hartpury University and College, Gloucestershire College, Cirencester College, and South Gloucestershire and Stroud College, and a wide range of independent training providers, work closely with GFirst LEP and the Gloucestershire Employment and Skills Board on business-led initiatives for young people to engage with industry.

But more can be done to align the supply of skills with the demand from local businesses.



## Institutes of Technology

Reflecting our commitment to working with neighbouring areas, two Institutes of Technology will shortly be formed through collaborations between local businesses and higher and further education providers to provide students with the STEM skills necessary for the workplace:

- + a partnership between the University of Gloucestershire, Swindon College and New College Swindon offering specialist degrees in engineering specialisms; and
- + a partnership between Gloucestershire College, Weston College and the University of the West of England, offering IT and cyber-tech courses.

## Apprenticeships

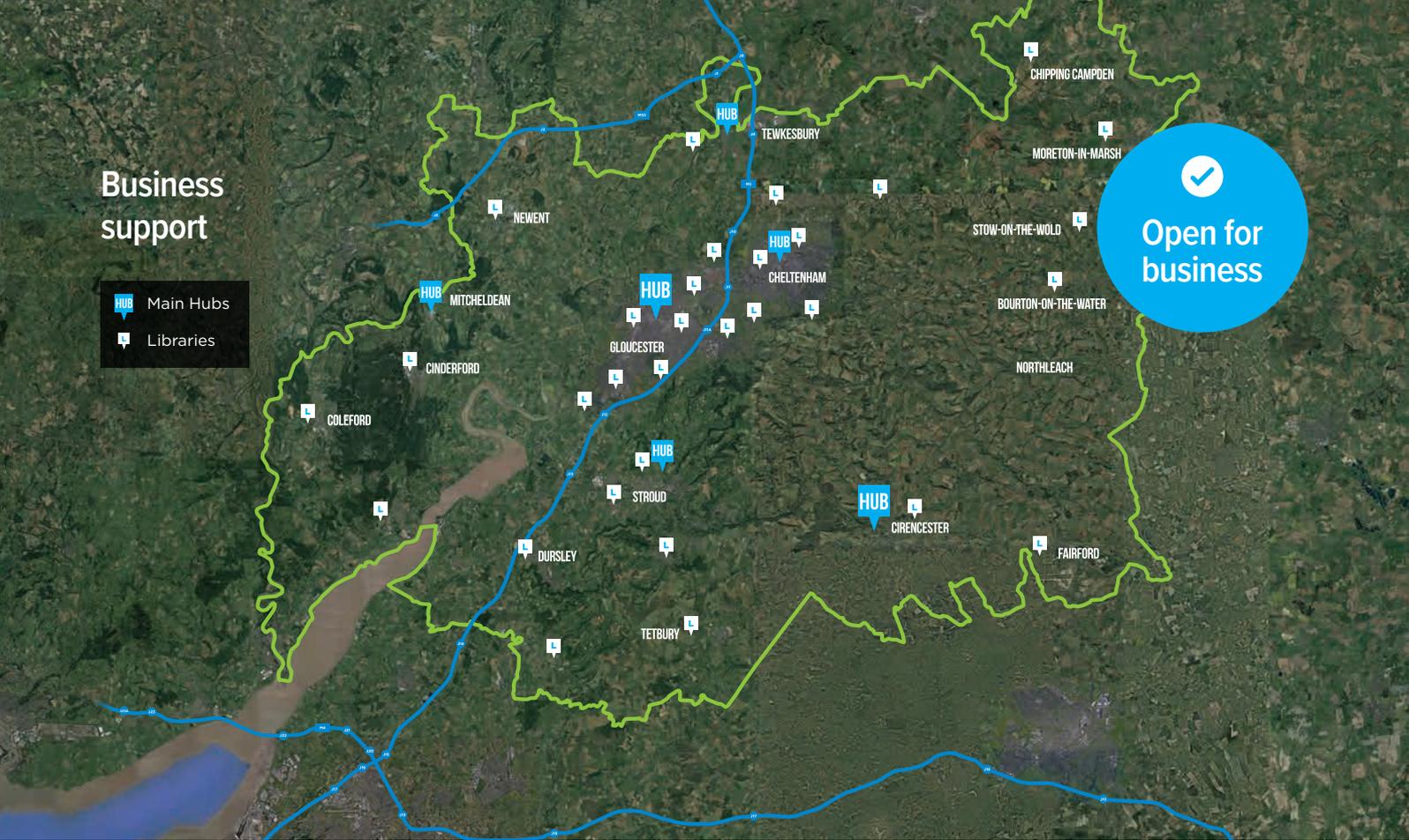
Apprenticeships in Gloucestershire are provided at several institutions, with the support of many Gloucestershire businesses. Whilst the number of starts has been increasing, there is a general lack of employer awareness of the full benefits of apprenticeships, including one third of companies not appreciating that there are financial incentives for businesses that take on an apprentice.<sup>65</sup>

We must provide greater clarity for Gloucestershire's employers and encourage information sharing about the financial and other benefits of apprenticeship schemes.

The Gloucestershire economy is fundamentally based on SMEs many of whom struggle to make apprenticeships viable, especially with a 20% 'off the job' training requirement. The focus on larger, levy-paying employers is not benefiting 99.6% of the Gloucestershire economy. Apprenticeship delivery in SMEs is therefore critical to the success of Gloucestershire.

GFirst LEP and the Gloucestershire Employment & Skills Board will continue to work collaboratively with government and local apprenticeship providers to influence policy and deliver apprenticeships for SMEs.

<sup>65</sup> Gloucestershire Federation of Small Business



## Gloucestershire’s Growth Hub network

Gloucestershire’s Growth Hub network, which forms a vital link between individuals and businesses, continues to expand across the county and is already operating at:

-  University of Gloucestershire’s Oxstalls campus;
-  Royal Agricultural University’s campus in Cirencester;
-  Tewkesbury Borough Council offices; and
-  Landing points in all of Gloucestershire’s libraries

More hubs will open soon in **Cheltenham, Stroud** and the **Forest of Dean**.

Alongside more traditional methods of training and education, this investment in lifelong learning in the county will help people develop skills, increase their earning capacity, and help employers access and retain the skilled employees they need.

The Growth Hub network has ambitions to develop an **online service** to:

- + connect people with training opportunities;
- + increase use of online learning; and
- + provide access to re-training opportunities in support of those seeking to acquire new skills and/or change careers.



**THE GROWTH HUB**

# What we need:

+ GFirst LEP and Gloucestershire County Council will support the Gloucestershire Employment & Skills Board to empower its transition into a **Skills Advisory Panel (SAP)** to ensure that:

- + Gloucestershire's education and training system meets the skill demands of local businesses;
- + young people and adults who are changing careers have access to local labour market information and can make informed choices about working for local businesses; and
- + education and training providers meet the needs of local industry by offering, and marketing effectively, the right courses.

+ To become '**the most flexible place to work**' in the UK so that everyone, especially younger people, an ageing workforce, and those currently struggling to get a job, can work in a way that enables them to make their best contribution to society.

To achieve this we will encourage more 'flexible' working in the county, including:

- + working from home;
- + flexible working practices to attract and retain talent in the workforce;
- + enabling greater contribution by older workers who may otherwise have retired, and people of all ages with caring responsibilities or other requirements that necessitate a more flexible approach to working life; and
- + tackling social mobility and promoting inclusive growth.

We will investigate any barriers to flexible working and encourage and promote programmes such as Disability Confident and the Tech Talent Charter, which seek to give employers the knowledge, skills and confidence they need to diversify their workforces.

+ **Fast and reliable broadband** service and infrastructure must be available across the county to enable people to work from home, particularly in rural areas.

+ We will encourage greater **cross-collaboration** between industries, for example between aerospace and advanced manufacturing, in order to attract and retain talent. This could combine efforts to increase visibility and presence in the jobs market, at job fairs, and in education institutions, to encourage young talent to move to the county.<sup>66</sup>

+ Our Skills Advisory Panel (SAP) believes that, in addition to encouraging flexible working, there are several other ways businesses can ensure they make the best use of their workforce. The SAP will:

- + gather good practice in knowledge transfer from older to younger workers and promote this to local businesses, especially those likely to be affected by replacement demand issues in the next few years.
- + review progress in delivery of apprenticeship schemes to help ensure that more SMEs take them up.
- + investigate and promote good practice in preparing and mentoring apprentices and in helping businesses to better support their apprentice employees.

+ In response to Gloucestershire's ambition to become a digital skills powerhouse, the SAP will develop a **Digital Skills Partnership** to ensure that:

- + local digital and cyber-tech skills provision is co-ordinated and promoted effectively, and focused on what local businesses and individuals need;
- + careers requiring digital and cyber-tech skills are highlighted; and
- + most effective use is made of government and other funding sources.

<sup>66</sup> Moog Response to LIS call for evidence

- 
- + The SAP will drive an **increase of STEM skilled workers** by:
    - + continuing to support and promote the importance of young people making informed careers choices so that they study the appropriate courses that keep STEM-related careers open to them;
    - + encouraging students to take up degrees in STEM to ensure an ageing workforce can be replaced; and
    - + aiding investment in industry-standard equipment and facilities for STEM education and training.
  - + The SAP recognises that the selective education system in Gloucestershire can exacerbate differences in aspiration and access among Gloucestershire's young people and will:
    - + seek to ensure that all young people in Gloucestershire have **good quality work experience** and industry placement opportunities;
    - + support **business engagement with schools** at both primary and secondary level, to inspire all young people;
    - + develop a comprehensive **'Aspirations' programme** delivering a range of activities and interventions, targeting those parts of the county where attainment is lower to:
      - + inspire young people to enter the cyber-tech, digital, agri-tech and creative industries; and
      - + help them understand that cutting-edge technology, data science and new digital techniques have applications across a whole range of professions and industries.
  - + GFirst LEP and the SAP will engage with **Cheltenham Festivals** to facilitate the delivery of relevant activities to schools as part of the festivals' aim to increase their appeal to young people.
  - + The SAP will investigate the value of introducing a **work charter** for the county which could include ambitions around flexible working, workforce replenishing, and developing and integrating employability skills into the curriculum through collaboration with businesses to ensure students have the skills they need.
  - + The SAP will investigate the creation of a **retraining platform** with colleges for those who have already left school or want to retrain in a different career. We will ensure these opportunities are well marketed, particularly to harder to reach groups such as the recently retired. Making use of the Growth Hub network in this context will be vitally important.
  - + The SAP, in partnership with GFirst LEP and Gloucestershire County Council, will continue to address persistent issues of **long-term unemployment** and young people not in education or employment (NEETs) in our most deprived wards by working with:
    - + District Councils;
    - + Adult Education;
    - + National Careers Service;
    - + housing associations and other key stakeholders.
  - + We will engage with communities that have traditionally been hard to reach and where levels of aspiration and achievement are low by leveraging the relationships already in place through housing associations that have an outreach remit to support increasing levels of employment among tenants.
  - + We will seek to influence local transport providers and employers to improve **transport provision** for these communities so that travel to work and travel to study barriers are diminished.
  - + We will establish pipelines for new talent into **specialist manufacturing and engineering roles**, including further support for apprenticeships to encourage young people to move into these sectors.



# Business Environment

Local leadership to turbo-charge our business community – starting, scaling, succeeding



A healthy local business environment is essential in helping businesses grow. Gloucestershire has a vibrant and diverse business base and a strong start-up culture, although more businesses have the potential to scale-up than they currently do. To ensure they can thrive in today's digital world, businesses must be able to adapt quickly to a changing environment, attract the right talent, innovate, and access the support they need.

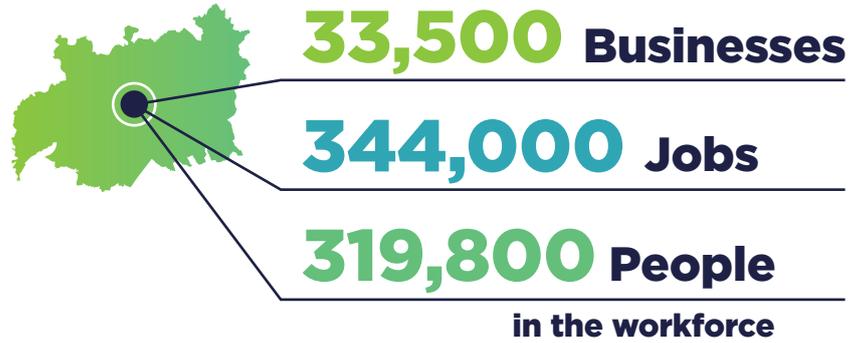
Pictured: The Growth Hub, Gloucester

# The current landscape

Gloucestershire has approximately 33,500 businesses supporting 344,000 jobs, with 319,800 people in the workforce. Whilst recent average GVA growth in Gloucestershire has roughly equalled the national average of 3.4%, Gloucestershire has a GVA per head of £26,093, out-performing the south west average of £23,091 although lower than the UK average of £26,621.<sup>67</sup>

Gloucestershire has historically had more businesses per 10,000 working age people than the national average although, as the county has had fewer business start-ups than the average in England, this gap is closing.<sup>68</sup>

The business base is primarily made up of micro and small businesses, with 97.3% of local firms employing fewer than 50 people, above the national average.<sup>70</sup> Business growth is limited in part by a lack of access to finance and talent.



**Businesses per 10,000 working age population in Gloucestershire and comparator locations, 2012-17**



The county has a particular concentration of businesses in:

- Manufacturing**
- Health**
- Public Administration and Defence**
- Construction**
- Retail**
- Agriculture**

The Manufacturing sector is particularly strong, contributing 15.2% of total GVA compared to 10.2% nationally<sup>69</sup>, with this sector being one of the county's particular specialisms, alongside high-value engineering and the cyber-tech and digital sector.

<sup>67</sup> Strategic Economic Plan for Gloucestershire 2.0  
<sup>68</sup> Gloucestershire Five Foundations of Productivity Evidence Report  
<sup>69</sup> Strategic Economic Plan for Gloucestershire 2.0  
<sup>70</sup> Gloucestershire Five Foundations of Productivity Evidence Report

Sector growth in Gloucestershire is concentrated in a cluster of knowledge intensive services in IT and digital, particularly cyber-tech which has seen considerable growth in recent years. GCHQ and the CyNam<sup>71</sup> cluster are significant features of the local business environment, which includes a physical hub (Hub8) to support businesses in the sector.

By 2030, Gloucestershire aspires to be the number one place in the country for inward investment in cyber-tech and agri-tech, leveraging existing strengths, although to achieve this will require further support and investment in skills and education.

Many firms in Gloucestershire need to completely re-engineer their businesses to take full advantage of digital technology and their failure or inability to do so is stifling the up-scaling of many.<sup>72</sup> A ‘digital revolution’ is needed to ensure the workforce has the skills to boost productivity and digital innovation in agri-tech, creative industries and engineering.

Gloucestershire also lacks sufficient infrastructure and office space for businesses to grow, particularly in its urban areas. Small businesses frequently encounter problems when seeking larger premises in which to grow,<sup>73</sup> while larger organisations such as GCHQ have struggled to find sufficient additional office space<sup>74</sup> to purchase or rent.

There are high levels of exports within the county, with a higher value than all other areas of the south west, and potential to further boost capacity. Those SMEs not currently doing so need specific export advice, guidance and support to give them the confidence to do so for the first time.<sup>75</sup>

There are significant opportunities to place Gloucestershire businesses on the global map, linked to our well-established innovative industries of aerospace and precision engineering, and our emerging specialisms of cyber-tech and agri-tech.



<sup>71</sup> [www.cynam.org](http://www.cynam.org)

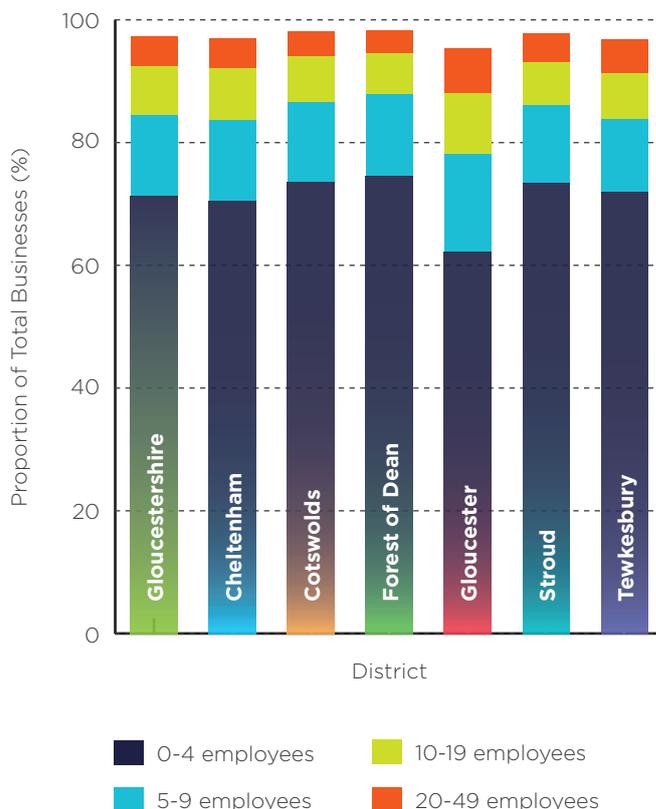
<sup>72</sup> Hartpury University and College LIS call for evidence response

<sup>73</sup> Gloucestershire FSB LIS call for evidence response

<sup>74</sup> GCHQ LIS call for evidence response

<sup>75</sup> Gloucestershire FSB LIS call for evidence response

## Small and micro businesses share in Gloucestershire and districts



## Local capabilities and assets

Gloucestershire is a national exemplar of physical Growth Hub infrastructure, and our vision of a county-wide Growth Hub network for business support, developed with funding of £9.4m through the Local Growth Fund, will soon be complete.

The Growth Hub network provides businesses and individuals with comprehensive support including advice on starting and growing a business; innovation; leadership and management; and HR. An array of other topics are available from within the Growth Hub network’s co-working space, with additional private space available across the county.

As the ‘cradle of cyber-tech innovation for the UK’, GCHQ, the CyNam cluster and the wider tech ‘sector’ make up a significant part of the UK’s cyber-tech intelligence base. Key to the development of cyber-tech business and the creation of new businesses, products and networks, are access to talent; funding; innovative space; and customers.

In addition, the commitment to build Cyber Central in Cheltenham will encourage new and existing businesses to develop within the Cheltenham cyber-tech cluster.

# What we need:

## Access to funding for businesses

Private investment in businesses will be essential, as will access to funding through institutions such as British Business Bank and research funding through UK Research and Innovation (UKRI).

Access to Green Finance will support businesses to reduce energy consumption, develop ways to 'green' processes and re-design operational activity to support the reduction of waste.

## Growth Hub 4.0

Echoing the digital 'fourth industrial revolution' **Growth Hub 4.0** will ensure the future-proofing of our Growth Hub offering, both physical and digital, so that business support available in the county remains a national exemplar.

Prioritising support for the county's many small and micro businesses, Growth Hub 4.0 will help them:

- + adopt emerging technologies including digitalisation, and other factors that increase productivity;
- + develop leadership and management skills;
- + access finance;
- + innovate and invest in research and development;
- + reduce energy and waste in their business to make it more sustainable.
- + This will require commitments for future development, including:
  - + creation of a youth hub and a talent platform;
  - + improved access to online resources linked to:
    - + increasing productivity;
    - + skills development and training; and
    - + start up support and virtual incubation;
- + We will explore a model in which generalist Growth Hub Business Guides are co-located alongside key sector experts in, for example, cyber-tech, agri-tech, advanced engineering, and manufacturing, all of whom are available to provide specialist and bespoke advice and support for high performing businesses in these sectors.
- + Delivering this vision will require commitment from GFirst LEP, government and local anchor institutions, as well as commitment from government for increased and long-term funding for Growth Hubs to 2030; to maintain impartial support; and allow for long term planning to address capability and capacity building.

## Campaigns

- + Year-long local 'Productivity Challenge' and 'Scale-up Campaigns' will be launched to send the message to all businesses that support is available to improve and grow. Stakeholders across the county will be encouraged to support these campaigns so that local entrepreneurs and businesses of all sizes feel part of a local challenge that will boost the county's earning power and support their own ambitions.

## Investment propositions

- + We must develop international investment propositions for cyber-tech; agri-tech; advanced manufacturing; and renewable energy, if we are to attract foreign direct investment.

## Engineering business park

- + There is need for an advanced engineering and manufacturing focussed business park to support large local companies in these sectors, and their supply chains. The desirability and potential benefits of clustering these businesses together to enhance skills development and innovation and increase collaboration is currently constrained by land availability.



# Infrastructure

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Green growth, clean, modern transport choices and better digital connectivity wherever you live in the county



We want innovative transport solutions and digital connectivity to ensure that the people and businesses of Gloucestershire can be fully connected. We also want to meet our house building commitments, and provide more affordable housing for young people, as part of our ambition to become a ‘magnet county’ that **attracts and retains young talent and supports all its residents to live life to the full.**

Our survey of young people revealed that transport was their number one ‘worst thing about living in Gloucestershire’<sup>76</sup>. Reliable door-to-door transport choices will be key to attracting and retaining young people, securing the county’s economic resilience, boosting productivity and encouraging long term development.

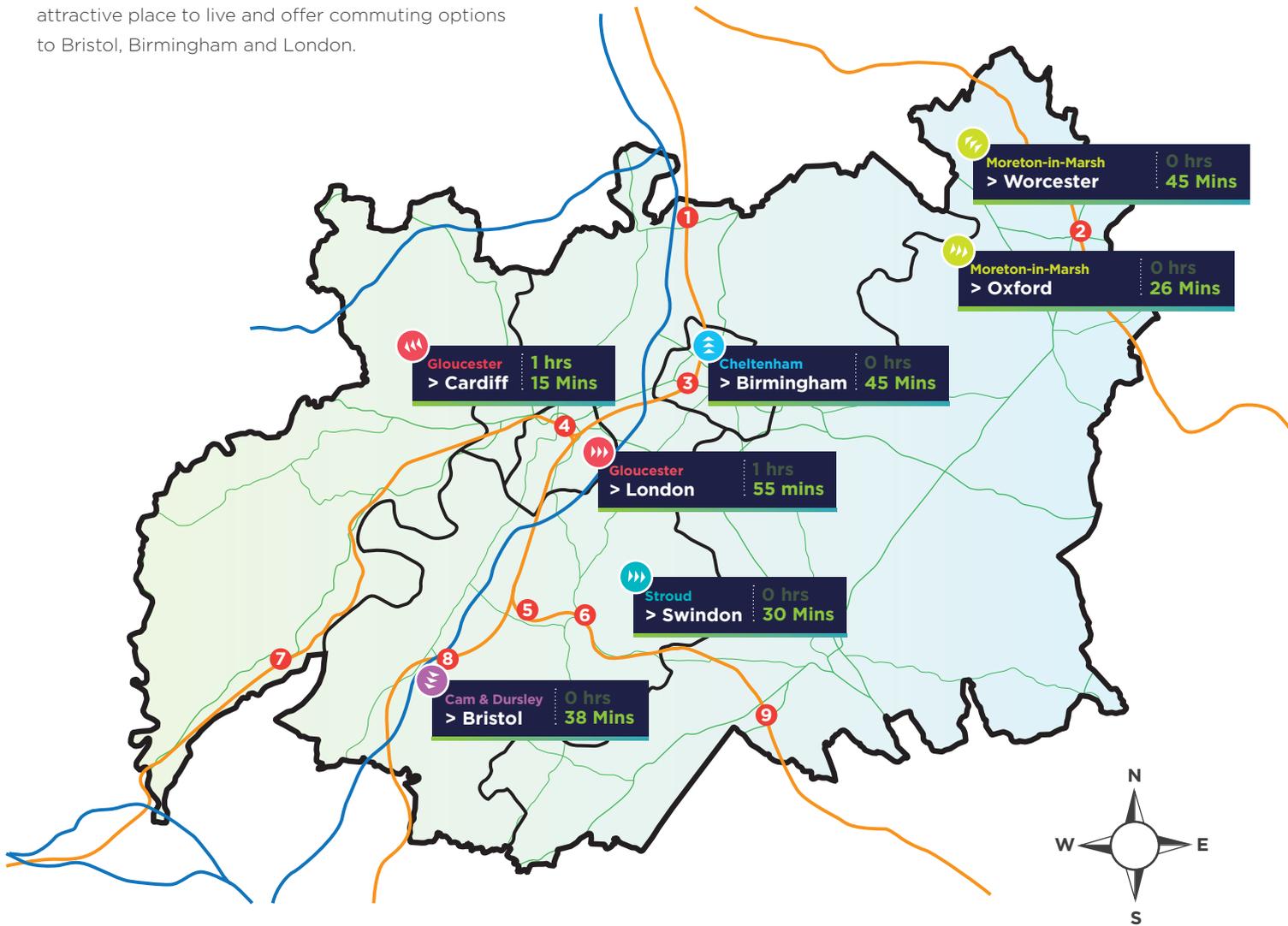
All of these commitments must be green and low carbon if we are to meet the county’s desire to reduce its carbon emissions to **net zero by 2050**, with aspirations to go further and faster.

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<sup>76</sup> GFirst LEP Magnet County Youth Survey

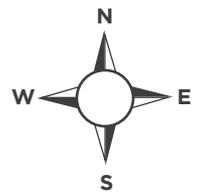
## The current landscape

Gloucestershire is a largely rural county with two major urban centres, Gloucester and Cheltenham. Direct hourly rail links from Gloucester, Cheltenham and Stroud to London and other major hubs make it an attractive place to live and offer commuting options to Bristol, Birmingham and London.



### Key

- Motorways
- A Roads
- Railways
- Train Station
- District Boundaries



Station	Entries and Exits	Interchanges
1 Ashchurch	101,238	
2 Moreton-in-marsh	268,866	
3 Cheltenham	2,400,434	191,483
4 Gloucester	1,477,988	72,090
5 Stonehouse	153,600	

Station	Entries and Exits	Interchanges
6 Stroud	544,270	
7 Lydney	195,532	
8 Cam & Dursley	188,918	
9 Kemble	372,686	

Currently, over 80% of residents live and work within Gloucestershire<sup>77</sup> and there is pressure on the road networks and motorway junctions serving the county.

The limited availability of rural transport services has created a high car dependency, in part caused by infrequent or poor bus services in most rural areas. There is scope for a major cultural shift to capitalise on the take-up of electric vehicles, which is increasing rapidly across the UK.

Gloucestershire has successfully delivered a host of infrastructure improvements across the county over the past decade including:



**major road schemes**



**regeneration schemes**

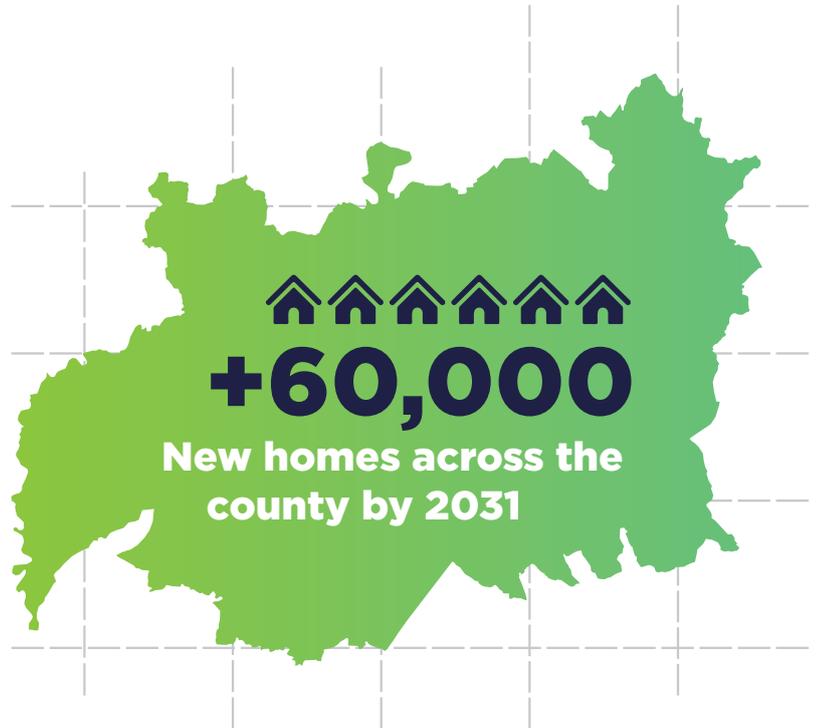


**new education facilities**



**housing developments with associated infrastructure**

Plans are in place to deliver around 60,000 additional new homes across the county by 2031, much of which is provided for in the Gloucester, Cheltenham and Tewkesbury Joint Core Strategy and, to a lesser extent, the Stroud local plan. This growth of the county's urban centres and surrounding areas contributes to an emerging Central Gloucestershire City Region.



## Local transport policy

The Gloucestershire Local Transport Plan (LTP) sets out how it will manage the increased transport demand resulting from the projected new housing and accelerated economic growth, by working with the Joint Core Strategy and the local plans for Cotswold, Forest of Dean and Stroud.

The LTP focuses on the improved choice of mass transit options with interchange hubs for a combination of transport modes, active travel, walking and cycling. Gloucestershire is based on a geographical patchwork of travel corridors, each with its own transport opportunities and pressures.

We will need to work closely with sub-national transport bodies including the Western Gateway and Midlands Connect to exploit strategic road and rail corridors, and develop innovative public transport solutions that include walking and cycling.

This is relevant for new housing developments such as the garden towns and villages planned for the county which must be designed to encourage sustainable transport solutions. Promotion and use of alternatives to cars will contribute to a reduction in carbon emissions, help us achieve net zero by 2050, and help to place Gloucestershire at the forefront of improved sustainability.

We will provide the infrastructure needs highlighted by the county's young people including support for the natural environment as a 'green county' in which it is increasingly possible to move around easily without relying on a private car.

<sup>77</sup> Gloucestershire Five Foundations of Productivity Evidence Report

## Recent investment

Gloucestershire's Connecting Places Strategies (CPS),<sup>78</sup> build on recent investment by government and the LEP in:

- + the A40 Corridor (£9m for Elmbridge Court Roundabout improvements, among other projects);
- + Cheltenham Spa Train Station improvements (£1.5m LEP investment from the Local Growth Fund (LGF));
- + Gloucester Bus Station redevelopment (£3.75m LGF);
- + A46 (realignment is a key investment priority for Gloucestershire Council);
- + M5 junction upgrades;
- + A417 Missing Link (£435m investment by Highways England);
- + Cyber Central (£22m LGF investment in local infrastructure); and
- + Committing to the Bristol MetroWest Phase 2, which will double the frequency of rail services to Gloucester, to provide half-hourly services to Bristol.



## Mass-transit transport solution

There is growing support for the exploration of a mass-transit transport solution that provides a reliable, quick and clean alternative to cars and significantly reduces commuter traffic between the county's urban centres of Cheltenham and Gloucester.

<sup>78</sup> <https://www.gloucestershire.gov.uk/transport/gloucestershires-local-transport-plan-2015-2031/connecting-places-strategies-cps/>

<sup>79</sup> <https://www.gloucestershire.gov.uk/media/19463/study-report-may-2015--final-version.pdf>

<sup>80</sup> GFirst LEP Magent County Youth Survey

## Fewer young drivers

Evidence from DVLA suggests that, nationally, young people are driving less and we must ensure that they are not deterred from settling in the county because of poor local transport choices, especially given Gloucestershire's location to major cities, and the high cost of housing.

## Rail study

The 2015 Rail Study Report for Gloucestershire outlines the recommended investments over the short, medium and long term. These include new stations to better serve where people live, whilst also proposing improvements to services at existing stations, which will deliver significant economic and financial benefits by making greater use of the existing rail infrastructure.<sup>79</sup> GFirst LEP fully supports and is co-funding a new rail strategy for the county, due in 2019.

## Cycle links

Over 60% of young people surveyed believe that more cycle lanes are needed to help address climate change.<sup>80</sup> Whilst there are some cycle connections in the county's urban areas, these are currently insufficient to enable Gloucestershire to promote cycling as a credible alternative form of transport. Transport decisions must include the creation of dedicated cycle links. These are promised for new green-conscious developments such as Tewkesbury Garden Town, the Cheltenham Garden Village and the Sharpness Eco Village in Stroud. Other cycle lanes are planned or already under construction, including the £1m investment by GFirst LEP into cycle infrastructure for Lydney in the Forest of Dean, but more needs to be done.

# Housing

Housing growth is hindered by land availability and capacity issues due, in part, to development constraints which have led to high house prices. Our ambition for a highly productive Gloucestershire depends upon adequate numbers of affordable housing to ensure young people are attracted to and can afford to live within the county. Owning a home or having a place to live is important to over 88% of young people we surveyed.<sup>81</sup>

Commitments from the local authorities within Gloucestershire total around 60,000 additional homes across the county by 2031, including a £100m investment by Cheltenham Borough Council towards addressing a particularly acute housing affordability issue in the town.

Major housing development is planned for West Cheltenham, tailored to the needs of the future workforce, with up to 3,000 homes to be built alongside Cyber Central, to support our rapidly growing cyber-tech industry.

The new homes planned for the county include many in the new Garden Towns and Villages, two of which are in the early stages of planning:

- + Tewkesbury Garden Town was one of six chosen for spatial planning funding by government and promises to have over 10,000 new houses near Junction 9 of the M5, as part of the greater opportunity to build on the M5 Growth Zone to improve connectivity and provide integrated transport and housing.

- + The Sharpness Eco Village in Stroud will offer sustainable transport links, green infrastructure and both walking and cycle routes for up to 5,000 sustainable houses.

These developments offer us the chance to:

- + ensure sustainability is at their heart from the outset;
- + pilot new green development and construction (including waste management) policies and initiatives; and
- + act as a national pioneer.

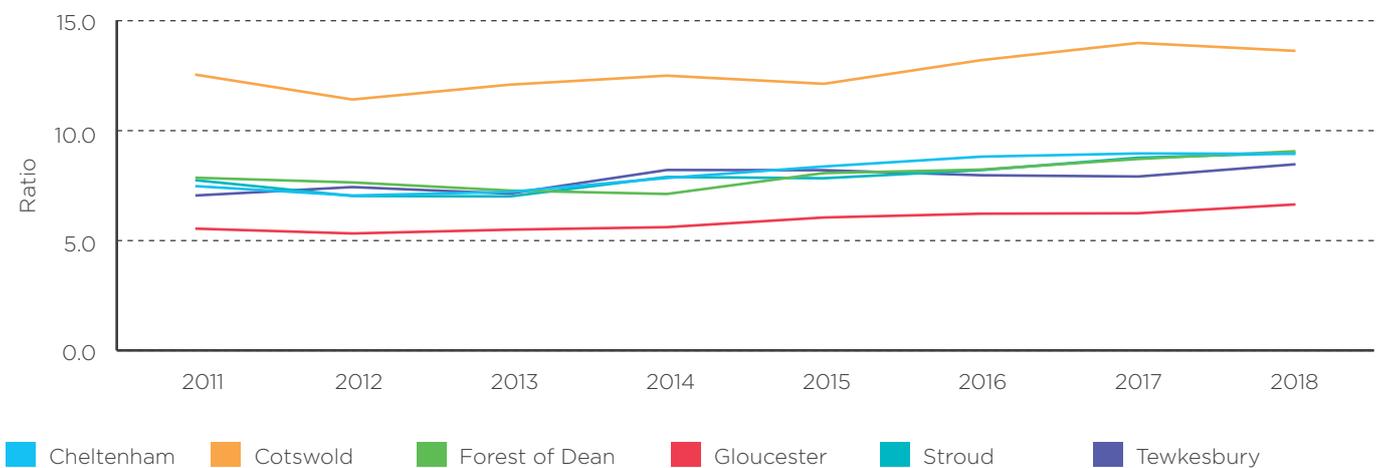
In addition to these housing commitments and the building already underway, policies such as Building with Nature and Stroud District Council's Sustainable Construction & Design Checklist will help ensure that new developments are sustainable, but more can be done to push the boundaries of green housing developments.

This will require collaboration by all of the county's local authorities, working together to ensure future homes are energy efficient, digitally connected and future-proofed. Work to support this is already underway.

Part of encouraging people to move to the county includes ensuring that jobs are available. Employment Land Studies are currently under review to ensure there is adequate commercial space for businesses to start and grow.

It is essential that businesses of all sizes have access to space from which to work and grow, and to ensure that productive businesses have space to expand and improve levels of productivity.

## Affordability ratio over time for the Gloucestershire districts, 2011-18



81 GFirst LEP Magnet County Youth Survey

## Local capabilities and assets

Gloucestershire has:

- + a strong business support infrastructure with a successful Growth Hub Network;
- + a near county-wide (93%+) superfast broadband fibre network; and
- + good transport infrastructure in urban areas.

Ensuring we make the most of these assets and effectively manage our resources is essential to increasing productivity as underused infrastructure is likely to prevent further improvements. We must therefore ensure that the county's infrastructure is well placed to meet expected demand.

## Smart charging

The current open consultation on electric vehicle (EV) smart charging by the Department for Transport and Office for Low Emission Vehicles (closing in October 2019) offers potential for the county to be at the forefront of EV charging point roll-out across the UK, supported by local companies such as Ecotricity, who are promoting the concept of an **'EV Super Highway'**.

## Digital connectivity

Herefordshire and Gloucestershire are unique in the UK in having three Fibre to the Premises (FTTP) providers working collaboratively on the Fastershire Project to deliver full fibre technology, including within some extremely rural areas of both counties. The project is reporting levels of access to a FTTP connection significantly higher than the national average - 93.5% of the county is enabled with superfast broadband and this will increase further with the rollout of Gigaclear and Airband by 2021.

Fastershire has several wider benefits for the county too, with the project including social and digital inclusion activities, and an extensive 'Business Support' programme designed to help small and medium sized businesses get the most from fibre broadband and be more competitive.

Overall, the broadband instillation and projects supported by Fastershire will boost the local economy by £420m over the next ten years.<sup>82</sup>

Gloucestershire's above average rural connectivity rate offers increasing capacity for flexible working, including self-employment and working from home. This reduces pressure on the transport infrastructure and on the county's carbon footprint whilst at the same time increasing productivity.

Ensuring the last remaining properties in the county are connected and that 5G infrastructure or greater is rolled out across the county will allow pioneering solutions in rural areas and enable us to fully harness digital technology and deliver effective transport solutions throughout the county.



81 GFirst LEP Magnet County Youth Survey

82 Source: Fastershire



## Gloucestershire Airport

Gloucestershire Airport has aspirations to be one of the greenest airports in the UK and at the forefront of green aviation technology research and adoption. Research into electric flight is already underway by companies on-site at the airport, and will be crucial to an efficient and environmentally sustainable aviation industry.

The airport is strategically placed on the M5/A40, offering opportunities for specialist aviation and related businesses. The airport is the UK's busiest General Aviation airport, with tens of thousands of aircraft movements each year.<sup>83</sup>

The airport offers world class training facilities from its new pilot training centre - widely regarded as the best in the industry and acting as a draw for pilots across the world.

Gloucestershire Airport has high levels of specialist businesses operating on the site, with further potential to develop. The recent expansion by aircraft undercarriage manufacturers Safran, and the release of further employment land near the airport highlights growing local business investment.<sup>84</sup>



<sup>83</sup> Source: Gloucestershire Airport

<sup>84</sup> Gloucestershire Airport LIS call for evidence submission

# What we need:

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- + A **mass-transit transport solution** that provides a reliable, quick and clean alternative to cars and significantly reduces commuter traffic between the county's urban centres of Cheltenham and Gloucester.

Currently during peak periods the scheduled 'fast' bus service takes over 50 minutes to travel the 10 miles between the county's two urban centres. As Gloucester and Cheltenham continue to grow it is essential that a strategic public transport corridor is created to link the growing City Region and enable relatively high speed and high frequency passenger vehicles/buses to operate between Gloucester and Cheltenham with possible extensions to Bishop's Cleeve and Quedgeley.

The vehicles would stop at travel interchange hubs such as railway stations and park and rides, and strategic employment sites. In the longer term these vehicles could operate as part of an autonomous smart city transport network, responding to the growing demands of commuters and visitors and incorporating low carbon technology.

The dedicated route would deliver a more viable and quicker solution than to retrospectively alter existing highway or rail networks.

The service would be fully segregated from all road traffic using a guided route to ensure service reliability and quick journey times and avoid congested pinch points.

Such a facility could reduce travel times between Gloucester and Cheltenham to around 15 minutes – over 30 minutes faster than the current offer. The guideway would also accommodate off-road cycle facilities.

Ducts would be provided along the route to carry fibre optic cables or other forms of technology to create a 'cyber' backbone across the urban conurbation.

Branding of the facility will be important – and it must provide a quality customer experience in terms of both price and journey convenience.

- + Delivery of local plans to **significantly increase the supply of housing** in the county and the development of ambitious plans beyond those – current projections suggest that between 2020 and 2050 around 100,000 new homes will be needed in Gloucestershire.

- + A **single prioritised infrastructure plan** to deliver through a centralised function and incorporating close collaboration between all seven planning districts in the county to find solutions to problems facing Gloucestershire.

- + GFirst LEP and the seven local authorities in Gloucestershire are working together to develop agreements on how strategic issues are handled over the long term to help deliver economic growth and realise potential in the county.

- + This agreement will be presented initially as a Statement of Common Ground (SoCG) and be a vital influence over the seven local plans to be prepared and adopted by the local planning authorities, as well as other delivery strategies and programmes.

- + At the core of the SoCG will be a framework to integrate the need to:

- + facilitate and accommodate economic growth;

- + meet housing needs;

- + provide community and green infrastructure;

- + deliver the transport networks and services required; and

- + achieve our target of reducing carbon emissions to net zero by 2050 or sooner.

- + To work with the Western Gateway SNTB and Midlands Connect, to ensure that the importance of east-west as well as north-south connections are recognised in **strategic transport corridor planning**, in view of the importance of these links to our key sectors.

- + To develop a **rail strategy** to ensure that rail travel provides a viable alternative to the private car for travel within the county, between its key towns, and to other parts of the country.

As part of this we will seek to:

- + increase the frequency and passenger capacity of services between Gloucestershire and London, Bristol and Birmingham;
  - + link with the planned MetroWest service to deliver direct services to and from Bristol; and
  - + ensure Tewkesbury Garden Town is adequately linked to the rail network.
- + To develop a county-wide **cycling strategy** to support more active, sustainable choices and enable people of all ages, particularly young people, to move around the county without needing to rely on the private car.

- + More commercial capability for **heat decarbonisation**<sup>85</sup>, electric vehicle adoption, retrofit, and tackling fuel poverty will be essential if Gloucestershire is to achieve its ambition of becoming the greenest place to live and work in England.

- + To work collaboratively with green energy company, Ecotricity, based in Gloucestershire, and others, to position the county as an incubator for electric vehicle smart charging and **one of the most EV-ready places in the UK**.
- + Measures to encourage a thriving **circular economy** in the county, working in line with technical advances being made to maximise resources and reduce waste across our industries.<sup>86</sup>
- + To support local entrepreneurial small businesses seeking to develop and commercialise **modern transport solutions** for use particularly in rural areas, such as local company En Route Parking.
- + To act as a pilot area for new **demand responsive transport** solutions where vehicles pick-up and drop-off passengers in locations according to passenger need.



<sup>85</sup> Decarbonisation refers to the removal of carbon produced during the production of heat to warm our homes and buildings, and to heat our water.

<sup>86</sup> Over 78% of young people surveyed believe we should be doing more to encourage recycling – GFirst LEP Magnet County Youth Survey



# Places

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Something for everyone  
in our vibrant, green county



Gloucestershire enjoys an **abundance of natural beauty and heritage.**

The urban hearts of Cheltenham and Gloucester and the beautiful countryside, market towns and villages that surround them provide something for everyone.

It has a unique blend of natural, economic, and social assets, a world-class cultural base with rich history, and a modern festival offering of literature, science, horse racing and food.

We need to do more to exploit these advantages in order to be a 'magnet county' that attracts and retains young talent and supports all its residents to live life to the full.

At the same time we must ensure that all communities, including those with persistent high unemployment and deprivation, have the chance to make a positive contribution to society.



## The current landscape

### Glorious Gloucestershire

With the largest tidal range in Europe, a vast array of wildlife, rich cultural heritage and a wild and beautiful landscape, the Severn Estuary is one of the UK's great natural wonders and a globally important site for nature.<sup>87</sup> The River Severn, travels north through Gloucestershire with the Royal Forest of Dean to its west, and The Cotswolds Area of Outstanding Natural Beauty (AONB) to the east.

Twenty-nine per cent of Gloucestershire's population live in rural areas compared to 17% nationally.



<sup>87</sup> Campaign to Protect Rural England - Severn Vision

## Location, location, location...

Gloucestershire's location means that many of its residents choose to commute to work in nearby cities such as Bristol, Birmingham, and London.

People commute outside of the county to achieve higher salaries and access a wider variety of high-quality employers and job opportunities. This is increasing as the availability of reliable superfast broadband across the county makes working from home for at least part of the week more attractive to individuals, and more acceptable to flexible employers, particularly those in the Professional Services sector.

As a consequence some employers and businesses within the county can struggle to attract the skills they need to drive their own business growth and productivity.<sup>88</sup>

Our interest in key sectors such as cyber-tech, agri-tech and tourism means we must leverage our position in the wider region and country playing our part in the Western Gateway Sub-National Transport Body, M4 corridor and Midlands Connect, and strengthen collaborations with neighbouring LEPs so that together we can achieve more from these growth opportunities.



<sup>88</sup> St James Place LIS call for evidence submission

# Local capabilities and assets

## Tourism

The county has a strong and growing visitor economy, with landscape, culture, heritage and sports attractions all drawing visitors from near and far, including the Cotswolds Area of Outstanding Natural Beauty (AONB) and the Royal Forest of Dean.

The Forest of Dean District is a Defra R80 classified area, in which 95% of its population still live in a rural environment. 110 sq. kilometres of the Forest of Dean’s Statutory Forest and contiguous woodlands are working forests and although 526 sq. kilometres of the District is interspersed with small and larger settlements, there are still many areas of relative wilderness.

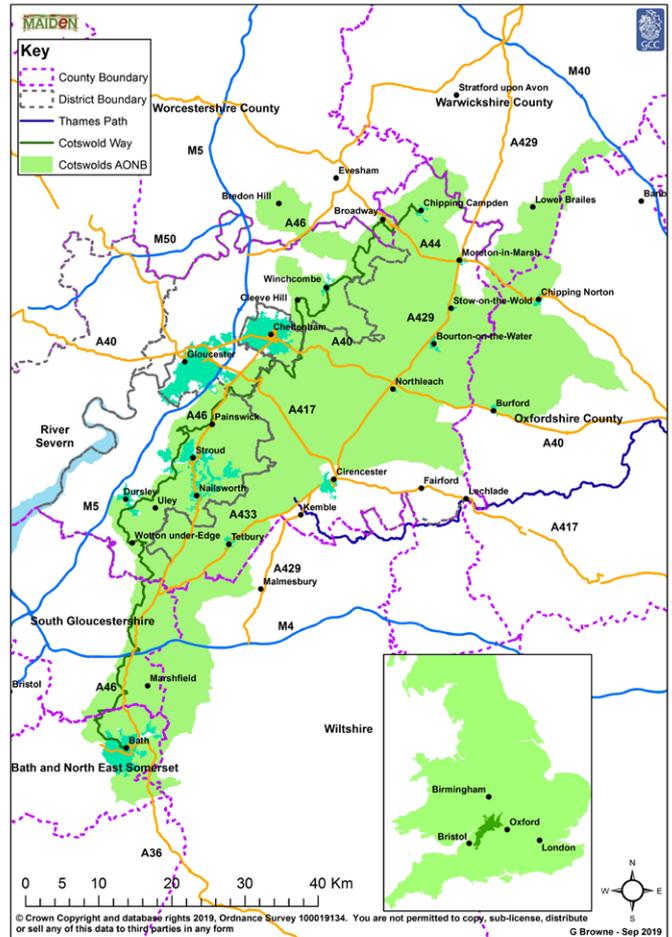
The Cotswolds AONB is one of the UK’s best known and most visited areas and covering 2,038 sq. km (790 sq. miles). It is the largest of the 46 AONBs in the UK and whilst mainly located in Gloucestershire, also extends into Oxfordshire and parts of South Warwickshire, Worcestershire, Wiltshire, Bath and North East Somerset.

Most tourism employment relates to food and drink, and accommodation for visitors.

Business surveys show that 33% of tourism and tourism-related businesses and 12% of other businesses felt that a deterioration in the quality of the landscape would seriously affect their business performance.<sup>89</sup>

There appears to be an ongoing shift towards more ‘experience’ rather than retail driven tourism, although visitor numbers for the Gloucester Quays Retail Outlet Centre seem to buck that trend.

## Cotswold Area of Outstanding Natural Beauty (AONB)



Annually, over the four days of the National Hunt Festival at Cheltenham Racecourse:

- + more than 130,000 people use Cheltenham Spa railway station;
- + almost 6,000 people are employed over the festival period; and
- + the economy of Gloucestershire benefits by circa £100 million.



89 Assessment of the economic value of the Cotswolds AONB for Cotswolds Conservation Board, April 2013

## Local plans

Each district in the county has created a local plan for the period to 2031.

- + Cheltenham, Gloucester and Tewkesbury have created a Joint Core Strategy;
- + Stroud, Forest of Dean and Cotswold districts each have their own local plan.

These plans promise major changes and renewal, particularly in terms of housing, with a cumulative housing commitment of around 60,000 homes across the county by 2031.

There is also a shared commitment to:

- + a more joined up approach to developments within Gloucestershire;
- + tackle the issues facing the county, in particular to:
  - + focus development around transport nodes; and
  - + address the lack of land for new development and ensure the provision of land for both residential and commercial stock.

## Central Gloucestershire City Region

The Joint Core Strategy (JCS) of the local authorities of Gloucester, Cheltenham and Tewkesbury is centred around the 'Growth Zone' which runs through the county adjacent to the M5 and will deliver thousands of new homes and commercial land to generate economic growth for the county.

These proposals have highlighted the potential for a **Central Gloucestershire City Region** – a vibrant central Gloucestershire area that builds on the two urban centres, working together to provide the transport infrastructure and housing needed by those people we want to attract and retain in the county.

The regeneration of Gloucester, with its aspiration and potential to be one the best small cities in the UK will complement Cheltenham and Tewkesbury's ambitions and, together, create a thriving City Region at the county's heart, offering city living with an outstanding rural landscape on its doorstep, great transport links, housing, jobs, education, culture, nightlife and more.

Gloucester currently offers more affordable housing than other parts of the county and already has a significantly younger population than other districts. It has a growing student presence to build upon and will continue to develop its lifestyle offering to encourage more young people, including graduates, to live and work there.



## Inclusive growth and social mobility<sup>90</sup>

Employment is a major factor in determining health – unemployment is associated with an increased risk of mortality and morbidity, including:

- + limiting illness;
- + cardiovascular disease;
- + poor mental health and suicide; and
- + health-damaging behaviours, such as smoking, physical inactivity and drinking alcohol.

Unemployment and economic inactivity are also associated with lower income and wider socio-economic disadvantage, which leads to health inequalities.

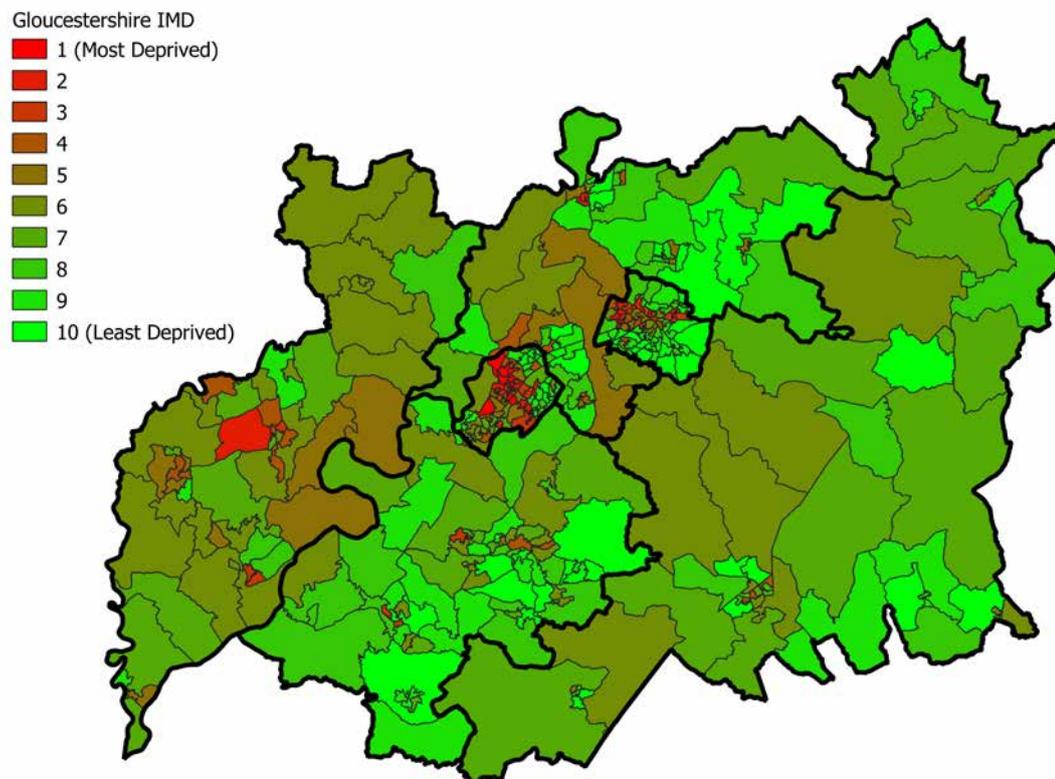
Pockets of high unemployment and deprivation continue to exist in both urban and rural locations of Gloucestershire. Whilst the five most deprived areas are in Gloucester, there are also pockets in Cheltenham and elsewhere in the county.

Gloucestershire is one of the 20% least deprived counties/ unitary authorities in England, with life expectancy for both men and women are higher than the England average. But good health and wellbeing is not evenly distributed across the county.

Gloucestershire's draft Health and Wellbeing Strategy shows life expectancy in the most deprived areas of Gloucestershire is 8.1 years lower for men and 5.3 years lower for women when compared with those living in the least deprived areas of the county, and commits to reducing these and other health inequalities.<sup>91</sup>

These issues must be addressed if we are to deliver inclusive growth that benefits everyone.

## Gloucestershire Index of Multiple Deprivation



<sup>90</sup> Inclusive growth is economic growth that is distributed fairly across society and creates opportunities for all: OECD Inclusive Growth 2019. Social mobility is the link between a person's occupation or income and the occupation or income of their parents: Social Mobility Commission, 2019

<sup>91</sup> Gloucestershire Health and Wellbeing Strategy – Gloucestershire County Council:  
[https://www.gloucestershire.gov.uk/media/2091564/gcc\\_2596-joint-health-and-wellbeing-strategy\\_dev8.pdf](https://www.gloucestershire.gov.uk/media/2091564/gcc_2596-joint-health-and-wellbeing-strategy_dev8.pdf)

# What we need:

- + To achieve Industrial Strategy **Tourism Zone status**, widening the county's appeal to all visitors, young and old, domestic and international, to increase the value of the visitor economy and support issues of seasonality.

If successful, government funding will be available to support growth in visitor numbers, through promotion, support and training.
- + To preserve the county's deeply rural environment, we want to **keep Gloucestershire at least 95% building-free**.

In total, less than 3% of the total land in the county has been built on, highlighting how rural the county is, whilst revealing an opportunity for further use of the county's land to unlock sites for future housing and employment.
- + To create an integrated world class campus - **Cyber Central** - for work, housing and leisure, at the heart of the burgeoning **Central Gloucestershire City Region**, supporting our ambition to be a 'magnet county' that **attracts and retains young talent**. We must ensure that deprived communities across the county, particularly in the urban hearts of Gloucester and Cheltenham, benefit from Cyber Central, can access its facilities, and are inspired by the opportunities there, in order to deliver inclusive growth that provides job opportunities for all.
- + The City Region must provide a **vibrant urban offering** across Cheltenham and Gloucester, an exemplar sustainable Garden Town at Tewkesbury, and modern transport solutions including walking, cycling and rapid transit, interconnected with the wider growth region.<sup>92</sup>
- + To exploit opportunities to position **Gloucester** as one of the country's leading small cities, with educational institutions and a thriving culture with festivals, sports, arts and attractions for people of all ages, and particularly its own young people.
- + To deliver a strong 2025 **Gloucester City of Culture** bid and use this opportunity to encourage tourism, investment and provide quality experiences for the local population and a lasting legacy of increased pride and cultural recognition for the city.
- + To enhance and **positively plan the Gloucester and Cheltenham Green Belt** as required by the revised National Planning Policy Framework (NPPF).

The development potential for the Green Belt in Gloucestershire must be carefully managed so that opportunities for sustainable housing development are made available, whilst ensuring that green spaces are effectively managed to benefit communities and wildlife - this work is already underway, led by the Local Nature Partnership and Gloucestershire Wildlife Trust.

The Campaign to Protect Rural England (CPRE) in Gloucestershire is developing a proposal for a Children's Countryside Code to be piloted in the county.<sup>93</sup>
- + Address the impact of the changing role of city and town centres characterised by changes in shopping trends and the prospect of a decline in retail.

Our large and smaller towns must adapt to this changing landscape with creative approaches to the use of premises in urban centres, including increased residential use as well as creating urban centre experiences beyond retail, and embracing flexible ways of working.

This will include piloting new approaches to the future High Street. Recent investment in the Gloucester-based UK Digital Retail Innovation Centre (UKDRIC)<sup>94</sup> provides an innovation space and digital upskilling programmes which supports our retail economy and other sectors.

Town centre heritage funding for Tewkesbury and Gloucester will breathe new life into important heritage sites in those towns.

<sup>92</sup> West Cheltenham Garden Community (working) version

<sup>93</sup> Campaign to Protect Rural England - evidencing Gloucestershire's Environment

<sup>94</sup> <https://www.gloucester.gov.uk/media/3214/gloucester-economic-growth-strategy-2018-2021.pdf>

+ Adopt an **'active-by-design-first'** policy by which we mean designing the places where people live and work in such a way that physical activity is an easy choice for people to make.

This approach has the potential to:

- + reduce car journeys;
- + create more sustainable communities and environments;
- + reduce sick days; and
- + reduce the cost of poor public health<sup>95</sup>.

This and other measures will also contribute to our desire to be a 'magnet county' and broaden the county's appeal as a tourist destination.

+ Recognising how our goals align, we will work with our health community partners including Gloucestershire's Health and Wellbeing Board to identify ways of ensuring we deliver **inclusive economic growth** with its consequent benefits to health, in line with the county's Health and Wellbeing Strategy and the forthcoming Director of Public Health's Annual Report, 'Healthonomics: tackling health inequalities through inclusive growth'.

+ Explore with relevant LEPs and councils an emerging collaboration being promoted as the **'Great Western Powerhouse'** and stretching roughly from Swindon to Swansea, including Gloucestershire.

This has been described in a recent report by Metro Dynamics as 'a powerhouse waiting to happen, with significant economic scale and shared sectoral and innovation strengths.'

We will seek opportunities to promote shared ambitions across this geographical area on, for example, infrastructure, internationalisation, innovation and inclusive growth.



95 Active Gloucestershire – LIS call for evidence submission

# Acknowledgements

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This draft Local Industrial Strategy has been informed by:

- + Over 270 individual pieces of evidence submitted to our call for evidence
- + The Gloucestershire Five Foundations of Productivity Evidence Report published alongside this document
- + Engagement with Gloucestershire's Local Authorities, other local public sector organisations and representatives from the voluntary and community sector
- + Ongoing discussions with private, public and third sector members from our ten GFirst LEP Business Groups

As part of our evidence base, we have drawn on the following plans and strategies for Gloucestershire:

[Strategic Economic Plan for Gloucestershire](#)

[Gloucestershire Vision 2050](#)

[Gloucestershire Sustainable Energy Strategy](#)

[Gloucestershire Wildlife Trust Manifesto for a Wilder Gloucestershire](#)

[Gloucestershire Local Transport Plan \(emerging draft\)](#)

[Cyber Resilience Alliance Science and Innovation Audit](#)

[Fastershire Broadband Strategy](#)

[Gloucestershire Joint Health and Wellbeing Strategy](#)

[Gloucester, Cheltenham and Tewkesbury Joint Core Strategy](#)

[Stroud District Local Plan](#)

[Cotswold District Local Plan](#)

[Forest of Dean District Core Strategy](#)

[Western Gateway Sub-National Transport Body Regional Evidence Base](#)

We would like to thank the following organisations in particular for their contribution so far:

2 Rivers Housing	Gloucestershire Libraries
Anna Greeman	Gloucestershire Local Nature Partnership
Association of Gloucestershire Business Groups	Gloucestershire Wildlife Trust
Avison Young	Great British Entertainment
Barnwood Construction	Harrison Clark Rickerbys
BASF	Hartpury University and College
Business West	Hazlewoods
Caring for Communities and People	Heather Resource Management Ltd
CCP Cheltenham	Hub8
Centre for Sustainable Energy	Isbourne Foundation
ChangeMaker 3D	JE2 Cyber and Data Security and Consultancy
Cheltenham Borough Council	Made4U Podcasts
Cheltenham Chamber of Commerce	Marketing Gloucester
Cirencester College	Maybe*
CISCO	Moog
Collison and Associates Ltd	Moreton-In-Marsh Town Council
Construction Industry Training Board	National Farmers Union
Cotswold District Council	National Trust
Cotswolds Canals Trust	Purman Consultants Ltd
Country Land & Business Association	Quolux
Crypt School	Rapleys
Cyber Security Associates	Renishaw
CyNam	Romana Moares
Dyynamic Solutions	Rotary Club of Cheltenham Cleeve Vale
Ecotricity	Royal Agricultural University
Edge Design Workshop	South Gloucestershire and Stroud College
Executive PA Service	Spirax Sarco
Fairford Town Council	St James Place Wealth Management
Farm491	Stow on the Wold Town Council
Fastershire	Stroud District Council
Folk2Folk	Stroud Green Party
Forest Economic Partnership	Tewkesbury Borough Council
Forest of Dean District Council	The Honourable Company of Gloucestershire
GCHQ	The Participation People
GE Aviation	UCAS
GFirst LEP Agri-food and Rural Business Group	Versarien
GFirst LEP Construction and Infrastructure Group	Warner Group
Gloucester City Council	Wiggly Worm
Gloucestershire Airport	Willans LLP
Gloucestershire County Council	Workshop Group
Gloucestershire Federation of Small Businesses	Young Gloucestershire
Gloucestershire Gateway Services	



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