30/06/2020

Sector Analysis to inform COVID Recovery Planning

Produced for: gfirst LEP

In consultation with:
GFirst Business Groups and Stakeholders
between 4th May and 16th June 2020

Authored by: Nick Holyoake

Table of Contents

Cyber Technology Business Group
Sector Analysis

The Cyber Technology Business Group seek to…

- Develop the County as the 'cyber cradle' for innovative Cyber-tech start-ups.
- Offer the opportunity for growth and development within the County, capitalising on the world-class Cyber-tech institutions based here.
- Provide Cyber-tech support to the development of West Cheltenham 'Cyber Central', ensuring opportunities for investment are utilised and nurtured effectively.
- Bring together the best technological minds from local SMEs and Start-ups to fully harness the Cyber-tech ecosystem.
- Identify the needs of businesses working in the Cyber-tech sector, including skills and talent supply, and facilitate solutions that will contribute to the economic growth of the County.

Pre-COVID key factors for the Cyber Technology sector in Gloucestershire

- In February 2017, Government announced a Growth Deal 3 allocation of £22m for the "Cheltenham Cyber Business Park infrastructure and site preparation."
- Cyber Valley has identified that 'there is a strong concentration of skills in cyber security within the region; this has resulted in a 185% growth in the number of registered active cyber security firms in the ten years leading up to 2017.'[1]
- CyNam is the UK's best attended regular cluster event and boasts a 1000+ person strong community from over 100 local businesses.[2]
- At present, 15.4% of young people surveyed have plans to enter the cyber-tech sector.[3]
- A recent survey by the Department for Digital, Culture, Media and Sport highlighted that only 36% of businesses have cyber security policies in place.[4]

[1] https://www.GFirstlep.com/downloads/2019/gloucestershire_draft_local-industrial-strategy_2019.pdf (p26)
[2] https://www.GFirstlep.com/downloads/2019/gloucestershire_draft_local-industrial-strategy_2019.pdf (p26)
[3] https://www.GFirstlep.com/downloads/2019/GFirst-lep-youth-survey-2019v2.pdf (p21)
[4] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/875799/Cyber_Security_Breaches_Survey_2019_-_Main_Report_-_revised.pdf (p33)

Cyber Technology

Pre-COVID SWOT Themes

STRENGTHS

ST1	Highly collaborative sector
ST2	Good aligned HEI & FE education provision
ST3	Local government support & focus
ST4	Existing organisations - CYNAM, NCSC, GCHQ, Hub8
ST5	Strong existing sector businesses

WEAKNESSES

WT1	Available talent
WT2	Understanding of Cyber Security across businesses
WT3	Gloucestershire – cost of living
WT4	Space and investment to grow
WT5	Transport networks and infrastructure

OPPORTUNITIES

OT1	Training & Education at all levels
OT2	Education/Business collaboration – secondments, placements, NED
OT3	Market and raise awareness of CS in County
OT4	More collaboration

THREATS

TT1	Other Cyber Tech Hub ambitions
TT2	Gloucestershire not attractive to people
TT3	Retaining businesses and individuals

Cyber Technology

Opportunity

How to involve businesses and people both in and outside the Cyber Sector in developing good Cyber Cleanliness habits and growing the County's Cyber Security capability & reputation.

- Cyber Security is a life skill that protects home, family & business.
- Engage Cyber businesses fully with FE & HE.
- Embed a proactive approach to Cyber Security at Board Level.
- Do the basics right and be more productive.
- Cyber Security as an enabler across the supply chain.
- Fully understand Gloucestershire Cyber Sector ecosystem.

Post-COVID Issues

- From the start of the COVID lockdown the Cyber Tech sector has seen a growing demand for services to:
  - Support businesses to move online.
  - Ensure the security of tele-conferencing.
  - Enable all levels of education provision to move online.
  - Deal with growing and changing Cyber security risks.
  - Allow remote working in a secure and efficient manner.

- There is a continuing skills gap with employers advertising for employees and looking to set up apprenticeship schemes

- The Cyber Central services and offering is likely to be more in demand as the number of Cyber Tech start-ups increase in response to market need and redundant workers reskilling. The demand my occur before Cluster 1 & 2 is due to be operational Q4 2023. The already functioning C11 Gloucestershire Science and Technology Park, Berkeley can operate as facility for early adopters.

- There is an ongoing skills and education gap that can be filled by FE/HE program delivery.

- "Businesses that once mapped digital strategy in one-to-three-year phases must now scale their initiatives in a matter of days or weeks"[5]. Wider Digital Business Transformation is becoming a priority for businesses as they consider efficient, cost-effective, profitable ways of operating in a physically distanced environment with reduced profit margins e.g: streamlined sales processes, maximising the benefit from Internet of Things (IOT), moving faster from concept to launch of new products.

- The requirement to home and online educate, access digitalised services and 'work from anywhere' has grown during lockdown. This has brought into sharp focus the ongoing Digital Divide in Gloucestershire and the associated need to take a coordinated approach to ensuring the County has a digital infrastructure available to all individuals and businesses that supports sustainable growth.

- Broadband services over 30Mbps are still limited, especially in the more rural areas of the County. Forest of Dean ranked 629/651 constituencies with 84.9% of properties receiving 30Mbps.[6]

[5] https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/digital-strategy-in-a-time-of-crisis
[6] https://labs.thinkbroadband.com/local/index.php?tab=1&council=2

Construction & Infrastructure Business Group
Sector Analysis

The Construction & Infrastructure Business Group seek to…

- Offer support in identifying and facilitating the planning of employment land within the County particularly along the M5 'Growth Zone'.
- Work collaboratively to support infrastructure developments surrounding planned growth areas, taking into consideration any environmental and social impact.
- Work with Gloucester City, Tewkesbury and Cheltenham Borough councils on the continuation of delivery of the Joint Core Strategy (JCS).
- Build on the 'barriers to development' work of Local Authorities and Planners to ensure a more joined-up approach to applications and the planning process.

Pre-COVID key factors for the Construction & Infrastructure sector in Gloucestershire

- 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.[7]
- 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.[8]
- 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.[9]
- Commercial floorspace in Gloucestershire is predominantly industrial, with 60% of total space dedicated to industrial uses compared to 55% in England.[10]

[7] https://www.GFirstlep.com/downloads/2019/gloucestershire_draft_local-industrial-strategy_2019.pdf (p33)
[8] https://www.GFirstlep.com/downloads/2019/gloucestershire_draft_local-industrial-strategy_2019.pdf (p36)
[9] https://www.GFirstlep.com/downloads/2019/gloucestershire_draft_local-industrial-strategy_2019.pdf (p36)
[10] https://www.GFirstlep.com/downloads/2019/gloucestershire_five-foundations-of-productivity_evidence-report_2019.pdf (p51)

Construction & Infrastructure

Pre-COVID SWOT Themes

STRENGTHS

ST1 Attractive area for businesses
ST2 Business confidence to invest
ST3 Engaged developers/investors

WEAKNESSES

WT1 Land allocations
WT2 Planning policy & procedures
WT3 Poor transport links
WT4 Green belt policy

OPPORTUNITIES

OT1 Pro-growth local authorities
OT2 Zero carbon agenda
OT3 Sites identified for growth
OT4 Joint working

THREATS

TT1 Availability of skills
TT2 Log jammed infrastructure
TT3 Land availability
TT4 Competition from neighbouring counties

Construction & Infrastructure

Opportunity

How to create significant new Growth Points in Gloucestershire, such as a new city region around Cheltenham & Gloucester and a Tewkesbury & Ashchurch growth area.

- Create new settlements/communities with the full range of shops, services and facilities that seek to maximise the use of public transport.
- Support the required employment growth needs of developing and relocating businesses.
- Transport infrastructure plans that enable controlled phased growth.
- Encourage interconnected rail use with strategic interchange hubs.
- Discourage car use and thereby contribute to achieving the Zero Carbon objectives.
- Network of walking & cycling routes.
- Raise public awareness of futurism (30/40-year thinking) and new ideas to change current mindsets e.g. reclassifying Green Belt.
- Work across business groups to create interconnected solutions.
- Support a Natural Capital Baseline for the County that allows all stakeholders to understand the impact of their actions regarding the natural capital of Gloucestershire.

Post-COVID Issues

- Project team to establish a coordinated approach to new Growth Points, Garden Cities.

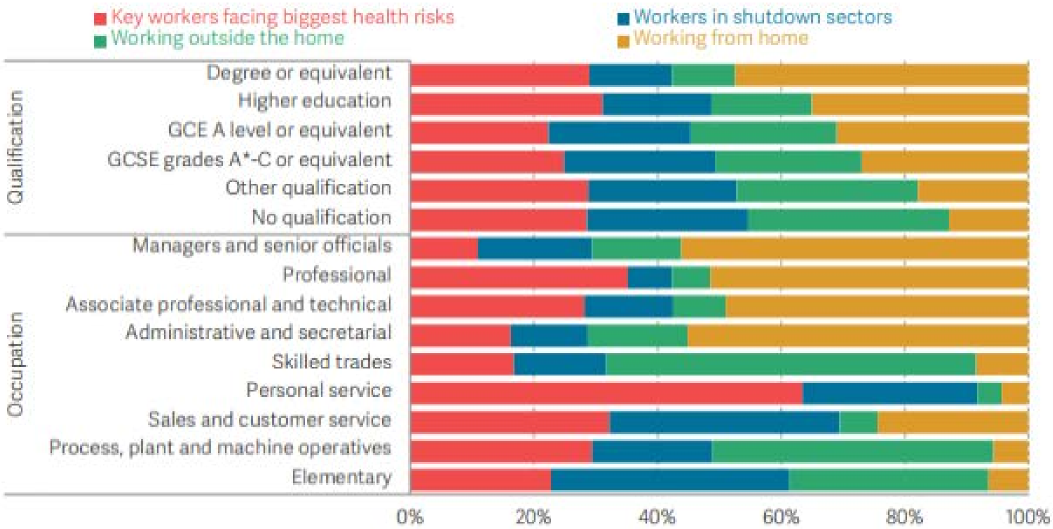
- The desire to build still exists; Gloucester Business park, Quayside regeneration & Innsworth Park District Centre[11] and there is potential locations for more home building.

- Individual concerns, supported by companies making the permanent switch to home- working is leading to reports that urban city dwellers are looking to relocate permanently to well-connected predominately rural areas where they will want to live, work & relax. This would create demand for suitable accommodation[12] and communities with supporting infrastructure.

- “Work from Anywhere” Gloucestershire, has the potential to be a real draw for a County looking to be “the most flexible place to work in the UK”[13] and increase its number of professional and technical higher salary workers and the spending power they bring.

[11] https://www.businessinnovationmag.co.uk/developer-forges-ahead-with-major-mixed-use-scheme-near-gloucester
[12] https://www.punchline-gloucester.com/articles/aanews/gloucestershire-housebuilder-opens-covid-19-secure-marketing-suites
[13] https://www.GFirstlep.com/downloads/2019/gloucestershire_draft_local-industrial-strategy_2019.pdf (p12)

Construction & Infrastructure



As shown in the graph[14] not all sectors can switch to homeworking and their need for good physical infrastructure and affordable housing stock is also essential to the restart.

- Support the development and implementation of Local Transport Plan (GCC Modal Transport Policy) especially rail and cycle infrastructure. The Local Transport plan should be reviewed to reflect the opportunities presented by the last few months, such as active travel as well as to match the County's Carbon Neutral 2030/2050 ambitions. Virtual meetings will mean less travel, an increase in productivity and have significant cost savings to business.

- The pandemic has brought a new dimension to the public transport debate, whilst people want to keep the benefits of reduced emissions and greener cities, they have become increasingly unwilling to use public transport in the COVID era.[15]

- Actively support the Construction & Infrastructure sub-group "Reduction of Barriers to Sustainable Development" to enable construction to operate effectively and bring new developments to fruition in reduced timeframes.

- Local authorities are taking immediate action to ease planning and trading restrictions to open the public realm, increase green spaces and assist High Street recovery.

- Programme to establish an approach to Digital Connectivity (reducing the need for travel). The Digital Divide has been brought into sharp focus during lockdown with the demand for online education, 'work from anywhere' and the delivery of digitalised services. A more digitally enabled County will bring benefits to construction and infrastructure through the ability to enable Smart Buildings improving energy efficiency.

- The Broadband rollout needs to be accelerated to at least bring all County's provision to above a median position of 325th (FOD 629th, Cotswolds 516th, SDC 534th).[16]

- Green infrastructure & new transport solutions. Establish a project to establish the approach to new and developing modes of transport that will further the ambition to shift to half electronic vehicles in the county by 2028[17] and new modes of personal transport (non-car) and mass transit for Growth Points. Gloucestershire has had ambitions for investment in electric vehicle charging infrastructure since at least 2012, to date the County has only a modest number of charge points.

- Initial construction site closures are now lifted but operating with physical distancing is slower and more costly. Construction supply stocks are now coming back but were also adversely affected during site closures.

[14] https://www.resolutionfoundation.org/app/uploads/2019/10/Risky-business.pdf
[15] https://www.politico.eu/article/life-after-covid-europeans-want-to-keep-their-cities-car-free
[16] https://labs.thinkbroadband.com/local/index.php?tab=1&council=2
[17] https://www.GFirstlep.com/downloads/2019/gloucestershire-energy-strategy-2019.pdf (p11)

Construction & Infrastructure

- Changing use of commercial/office sites as physical distancing increases the need for more office space. However, this will be countered by flexible working becoming an assumption, not just a benefit, therefore less office space is likely to be required. Office spaces may need to transform to sites that can support blended working (a balance of home/office/co-working).

Energy Business Group
Sector Analysis

The Energy Business Group seek to…

- Ensure the application of Gloucestershire's Sustainable Energy Strategy into new projects.
- Work collaboratively to strive for the ambition for Gloucestershire to become carbon neutral by 2050.
- Encourage the adoption of measures to improve the efficiency of energy usage by businesses.
- Assist the LEP in the development of the 'Green Gloucestershire' offering of the Local Industrial Strategy.
- Work with the South West Energy Hub by identifying energy projects and funding streams, collaborating with neighbouring LEPs in the South West when needed.
- Gain funding for low carbon initiatives.
- Contribute to the 'Renewable Energy Leadership', 'Ultra low emissions vehicles and clean fleet' and 'Heat Decarbonisation' task groups as part of the Energy Strategy.
- Support the LEP in ensuring that the Gloucestershire Renewable Energy, Engineering and Nuclear Skills (GREEN) project can deliver its ambitions to support the skills needs of the growing low carbon energy sector**.**

Pre-COVID key factors for the Energy sector in Gloucestershire

- Improving all the County's housing to an Energy Performance Certificate (EPC) of at least C requires an investment of £1.2 – 2billion and could generate £0.75 – £1.3billion GVA for the County's building and heating engineering businesses.[18]
- The lack of capacity on the existing grid network is probably now the greatest constraint on the development of new renewable electricity projects.[19]
- 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.[20]

[18] https://www.GFirstlep.com/downloads/2019/gloucestershire-energy-strategy-2019.pdf (p4)
[19] Part of the Ecotricity response to the call for evidence for the LIS
[20] https://www.GFirstlep.com/downloads/2019/gloucestershire_draft_local-industrial-strategy_2019.pdf (p64)

Energy

Pre-COVID SWOT Themes

STRENGTHS

ST1	Range, diversity and reputation of energy businesses in County
ST2	Collaborative working
ST3	Businesses, local authorities and skilled people willing to and capable of delivering change
ST4	Industry awareness of an environmental issue that needs resolving

WEAKNESSES

WT1	Lack of clear policies and operating frameworks
WT2	Grid capacity
WT3	Lack of public awareness of severity of issue
WT4	Ability to retrofit energy saving solutions

OPPORTUNITIES

OT1	Awareness & education of public and all businesses
OT2	Renewable energy solutions linked to new builds
OT3	Collaborative working of sector experts
OT4	Influence Energy policy

THREATS

TT1	Central government policy – clarity, consistency, commitment
TT2	Public not committed to changes in energy policy, generation & saving
TT3	Old housing stock & infrastructure

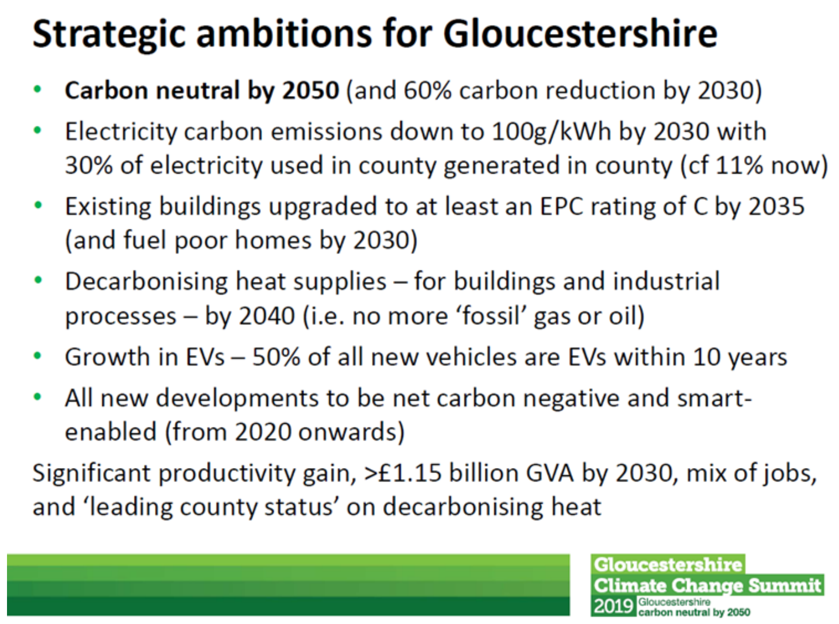
Energy

Opportunity

How to turn Sustainable Energy Strategy into an action plan with clear deliverable accountabilities.

- Bringing together energy producers & distributors, users & legislators.
- Work across business sector groups.
- Further raise public awareness of climate emergency.
- Set up a template for business to a develop their own Energy Sustainability framework.

Post-COVID Issues



- Gloucestershire Sustainable Energy Strategy produced January 2019, its contents are even more relevant in COVID recovery and restart phase.[21]

- Potential employment growth sector as the level of climate threat to the County is unchanged by COVID and homes and businesses must become resilient. Green power sources (wind, solar, AD), decarbonising energy, green highways and transport infrastructure all have potential for job creation.

- Gloucestershire has a strong commitment to Carbon Agenda with innovative companies.

- Flexible working patterns & alternative transportation methods such as EV & cycling have the potential to reduce emissions. However, an effective green transport infrastructure needs to be supported by an active travel agenda & promotion to ensure full carbon reduction, health and wellbeing benefits are realised.

---

[21] https://www.GFirstlep.com/downloads/2019/gloucestershire-energy-strategy-2019.pdf

Energy

- Increased working from home – is generally positive for the environment due to reduced travel but Gloucestershire's inefficient older housing stock (EPC ratings) rather than energy efficient office buildings may increase emissions and direct cost to individuals.

- Grid constraints limit the potential for alternative energy production.

- The heat output from Javelin Park appears to be un-utilised at present.

- COVID lockdown reduction in oil prices will be ongoing for several years and this reduces the immediate financial (but not climate) imperative for change.

- Gloucestershire has innovative companies, technical solutions and ambition but not always joined up thinking. In a post pandemic situation that collaboration needs to happen.

- Energy efficient buildings – achieving EPC target has the potential for job creation through skills training and associated grants and central government support for retrofit that supports local companies and GVA. Digital technology and connectivity can also contribute to this with more smart buildings contributing to greater energy efficiency.

- Prioritisation of investment in Green Spaces for people. Investment in urban green infrastructure and parks delivers benefits for public health and wellbeing. These spaces add to the attractiveness of Gloucestershire as a place to live and work. Further, they help support biodiversity, can reduce flood risk, improve air and water quality and reduce the urban heat island effect.

Agri, Food & Rural Business Group
Sector Analysis

The Agri, Food & Rural Business Group seek to…

- Work with partners to develop a food strategy for the County.
- Use food as the vehicle for driving positive social, economic and environmental change.
- Support sustainable rural businesses with their growth potential.
- Assist in the development and implementation of the County's LIS Agri-tech strand.
- Support the development of education surrounding food origins; diet, public health and wellbeing; value of food.
- Collaborate with bodies such as DEFRA, LEAF and the Soil Association to link environment, farming and food production.
- Work with Rural Development Programme for England to identify LEADER funding and any other funding opportunities for agriculture, food and farming businesses.
- Collaborate with local authorities and stakeholders to advise on rural issues.
- Devise and implement engaging initiatives and activities that will help promote, nurture and support improved skills for the longevity of a thriving rural economy.
- Enable business groups to share ideas on Agri, Food & Rural issue.
- Widen the reach of all represented efforts, utilising the Growth Hub and other available business support networks across the County.

Pre-COVID key factors for the Agri, Food & Rural sector in Gloucestershire

- Development of a Food Industry Strategy for Gloucestershire by the 'Gloucestershire Food Industry Strategy Group'.[22]

- The emerging Gloucestershire Food Industry Strategy Food Forever 2030 project; 3 strands; Pioneer (agritech), Prosperity (local procurement) & Place.[23]

- Agriculture, forestry & fishing; Health; Information & communication; and Accommodation & food services are anticipated to see the greatest growth over the next 20 years for Gloucestershire compared to the UK average.[24]

- Over 70% of the County is agricultural land.[25]

- Gloucestershire has a food and agriculture sector valued at nearly £1.5bn.[26]

- The sector supports 50,000+ County jobs, double the national proportion of activity.[27]

[22] Gloucestershire Food Industry Strategy Food Forever 2030
[23] Gloucestershire Food Industry Strategy Food Forever 2030
[24] https://www.GFirstlep.com/downloads/2019/gloucestershire_five-foundations-of-productivity_evidence-report_2019.pdf (p30)
[25] https://www.GFirstlep.com/downloads/2019/gloucestershire_draft_local-industrial-strategy_2019.pdf (p46)
[26] https://www.GFirstlep.com/downloads/2019/gloucestershire_draft_local-industrial-strategy_2019.pdf (p46)
[27] https://www.GFirstlep.com/downloads/2019/gloucestershire_draft_local-industrial-strategy_2019.pdf (p46)

Agri, Food & Rural

Pre-COVID SWOT Themes

STRENGTHS

- ST1 Concentration of high-quality education, research institutions and facilities
- ST2 Thriving food and drink producers
- ST3 Lots of active diversified businesses
- ST4 Strong start-up base for agri-tech

WEAKNESSES

- WT1 Value of the "food on people's plates" not understood by public and local authority
- WT2 Size of productivity gap between most & least efficient
- WT3 Rural housing availability & affordability
- WT4 Rural infrastructure

OPPORTUNITIES

- OT1 Making local produce the primary choice for business, anchor institutions and people
- OT2 Ensuring tech finds its way through the farm gate
- OT3 Triple bottom line; more with less delivers economic, environmental and social benefits

THREATS

- TT1 Public perception of meat, agriculture & climate change
- TT2 Funding for farming & investment in innovation
- TT3 Lack of coordination in Gloucestershire supply chain

Agri, Food & Rural

Opportunity

How to create a robust & integrated Gloucestershire rural (agriculture, tourism, food) economy.

- Further develop networks and leverage existing investments to create an innovation cluster for advanced agri-tech (The Hive).
- Collaboration between Gloucestershire Agritech institutions that shares the wide range of activities and maximise benefits to the County.
- Raise public awareness of rural contribution to economy.
- Develop food supply chain.
- Work across business groups to create interconnected solutions.

Post-COVID Issues

- The developing Gloucestershire Food Strategy[28] now has an increased relevance, especially:
  - Dynamic procurement system (DPS) to support businesses is at trial stage with GCC schools contract and has been supported by a 'Farming Future' bid.
  - 'The Hive', for advanced agri-tech innovation aims to create more high value jobs and attract investment to the County.
  - Financial lever (locally) for farmers and growers to transition to a more sustainable way of farming (green infrastructure and climate change emergency agendas).

- Whilst the food supply chain - agriculture, horticulture, food processing and retail – has continued to function in the period of lockdown[29], there were immediate and severe COVID lockdown impacts on dairy and those supplying to hospitality, catering and events industries.

- Other farm production was quickly impacted by collapse in demand/price.

- The food production impact had knock-on effects to farm supplies companies, food processing & distribution businesses.

- Retail food demand increased significantly during lockdown and localised food markets flourished. This only partially compensated for the loss of wholesale market sales despite some companies adjusting their business model to make retail sales.

- Negative impact of COVID is just one layer on top of a plethora of existing agricultural issues; labour force uncertainty, new Agricultural Bill impact, Common Agricultural Policy changes, reduced welfare standards, uncertainty over trade deals & the yield/return problems caused by this year's weather extremes.

- 65% of farming enterprises have already diversified[30] in one way or another. Struggling farmers who have diversified into tourism are now being double hit. Rural tourism accounts for around 80% of domestic tourism, and recent VisitBritain estimates suggest it will see its revenues fall by £17.6bn this is almost a third more than the estimated impact on tourism of Foot and Mouth Disease (FMD) in 2001.[31]

- Rural areas have an in-built advantage: space. If rural business can be re-opened – subject to the appropriate social distancing and hygiene measures, and with the right support framework, they could provide an early boost to the national

[28] The Gloucestershire Food Strategy, the Hive is a work in progress and documents are not currently available to view as at June 2020
[29] https://www.cla.org.uk/sites/default/files/CLA%20-%20Re-starting%20the%20rural%20economy.pdf
[30] https://www.nfumutual.co.uk/globalassets/farming/diversification/report-2020/diversification_report_2020.pdf
[31] https://www.cla.org.uk/sites/default/files/CLA%20-%20Re-starting%20the%20rural%20economy.pdf

economy.[32] With a confirmed 4th July reopening the accommodation space offered by farm based rural holiday lets could be a financial lifeline to diversified farmers.

- Not all farmers can or should diversify away from food production, the economic and food supply chain issues are too serious for this to happen. The Gloucestershire Dynamic Procurement system for the food supply chain is one potential solution to the problem of land laying fallow. However, its success is very reliant on farmers being willing/able to produce the required produce.

- Gloucestershire's established Agri-Tech focus is an excellent grounding for the recovery period. Continued efforts to build that reputation through a strong ecosystem of Agri-tech companies, innovation facilities and associated digital companies is essential.

- The pre-COVID developing and now growing Localism agenda around food retailing is an opportunity for market towns, groups of producers and suppliers to reach new markets. However, for most consumers in Gloucestershire this will not impact their daily food needs.

- The need for greater food security & traceability in the supply chain is likely to grow as cheaper alternatives become more sought after during a period of high unemployment and recession.

[32] https://www.cla.org.uk/sites/default/files/CLA%20-%20Re-starting%20the%20rural%20economy.pdf

Advanced Engineering & Manufacturing Business Group
Sector Analysis

The Advanced Engineering & Manufacturing Business Group seek to…

- Identify and address skills shortages within the sector, engaging with academia to address these gaps.
- Incorporate the manufacturing initiatives into the STEM learning environment.
- Ensure the right talents and capabilities are developed and retained within the County, avoiding skills seepage.
- Assist in the development and implementation of the County's Local Industrial Strategy.
- Focus on improving the skills, planning, infrastructure and communications within the wider sector in Gloucestershire.
- Promote and support the joining up of activities in this sector within an education and training context to inspire future generations.
- Work collaboratively and consider the views of employers in the sector to ensure a collective effort to address their main challenges.
- Engage with other business groups to share ideas and widen the reach of all represented efforts.

Pre-COVID key factors for the Advanced Engineering & Manufacturing sector in Gloucestershire

- 70.3% of businesses in the County are 'innovation active', compared to the national average of 55.1%.[33]
- Gloucestershire has a slightly above average rate of employment in STEM roles, at 7.5% of total employment compared to a 7.2% average for England.[34]
- Gloucestershire has a higher incidence of firms reporting vacancies than nationally and regionally – with 28% of firms reporting at least one vacancy and 43% of these classed as 'hard to fill'.[35]
- UK open patent data identifies that 2,618 patents were filed by Gloucestershire businesses up to July 2018, mostly in advanced engineering & manufacturing.[36]

[33] https://www.GFirstlep.com/downloads/2020/gloucestershire_five-foundations-of-productivity_evidence-report_2019-updated.pdf (p43)
[34] https://www.GFirstlep.com/downloads/2020/gloucestershire_five-foundations-of-productivity_evidence-report_2019-updated.pdf (p35)
[35] https://www.GFirstlep.com/downloads/2020/gloucestershire_five-foundations-of-productivity_evidence-report_2019-updated.pdf (p70)
[36] https://www.GFirstlep.com/downloads/2020/gloucestershire_five-foundations-of-productivity_evidence-report_2019-updated.pdf (p47)

Advanced Engineering & Manufacturing

Pre-COVID SWOT Themes

STRENGTHS

- ST1 Strong reputation for engineering
- ST2 Range of manufacturing companies
- ST3 Engineering clusters

WEAKNESSES

- WT1 Availability of people with the right key skills to fill employment opportunities
- WT2 Lack of understanding how to improve productivity
- WT3 Brain drain of highly skilled

OPPORTUNITIES

- OT1 Potential to improve productivity
- OT2 Upskilling
- OT3 Centres of excellence to ensure effective collaboration across the AEM sector
- OT4 Coordinated approach (business & educators) to training

THREATS

- TT1 Big Mega projects outside Glos
- TT2 Skills shortage
- TT3 Companies moving from Glos

Advanced Engineering & Manufacturing

Opportunity

How to attract AEM companies to Gloucestershire.

- Make the most of Gloucestershire's hidden "AEM" business gems and cluster strengths through closer collaboration.
- Apprenticeships that reflect business demand, are attractive to people and are understood by employers.
- Boost productivity through developing all AEM skills, core e.g. welding, not just specialist and high tech.
- Develop and retain AEM skills in County, through education, redeployment/retraining and enhanced County reputation.
- Attract a more diverse and inclusive AEM workforce Involvement of schools and FE.

Post-COVID Issues

- Across UK impact (Gloucestershire reflects these findings):
  - 9 out of 10 manufacturers have continued to operate during the crisis.
  - 1 in 4 manufacturers plan to make redundancies in the next 6 months.
  - 70% have seen a decrease in orders & sales.
  - 1 in 5 firms are operating between 25%-50% of full capacity.[37]

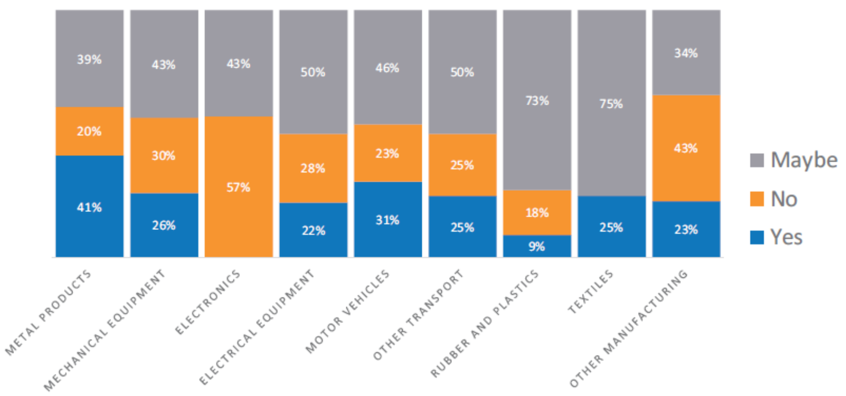
- Short term many will continue operations to fulfil existing contracts, remove backlogs and deal with pent up short-term demand post lockdown.[38]

- Severe impact longer term will be felt after existing contracts end and companies make early decision to consult on staff redundancies. No furloughing straight to redundancy consultation process.

- Companies with close linked supply chains and niche products have felt the most impact. Those with a diverse product range by type/or potential use have been able to pivot or find new markets in growth areas such as PPE and health care. This range of diversity and sharing Gloucestershire's AEM skills to fulfil potential contracts may be a way forward.

- AEM brings together a wide range of manufacturing types and as such the COVID impact is different by sub-sector:

Chart 1: Does your company plan to make redundancies in the next 6 months? Selection of subsectors



Source: Make UK, Manufacturing Monitor #3 (April-May 2020)

[37] https://www.makeuk.org/insights/publications/manufacturing-monitor-29052020
[38] https://www.autocar.co.uk/car-news/industry/uk-car-dealerships-predict-strong-demand-wake-lockdown

Advanced Engineering & Manufacturing

- Skills shortages in semi-skilled (welding, electrical component manufacturing and highly experienced areas) may still exist after the redundancies are made.

- A consortium of major UK industrial, technology and engineering businesses came together to support health care needs[39] and these forms of collaboration may be a way forward.

- Industry 4.0[40], the fourth manufacturing revolution, is not a new concept. However, the pandemic accelerates many of the digital technology developments already being considered. The potential for diversification will bring greater resilience and potentially GVA to the County by developing products for not yet fully developed or unrecognised markets such as increased demand/acceptance for robotics, automation of services & health care delivery and autonomous vehicles.

- In the long term the availability of engineering and manufacturing contracts will be impacted by; recovery of global economy, country decisions on shortening supply chains and their views on protectionism.

- Civil aviation has reduced to minimal levels and is not predicted to return to 80% of pre-COVID levels until at least Summer 2022[41]. Therefore; 40% reduction in civil aeroplane jet output for at least two years[42], 75% drop in revenue by servicing companies are predicted. This leads to 25% worldwide redundancies being openly reported by Aerospace companies[43] including those based in Gloucestershire. Some County companies defence contracts may partially mitigate against this level of job losses such as, GE Aviation $394million contract from the US Defense Logistics Agency.[44]

[39] https://www.businessinnovationmag.co.uk/regions-manufacturers-and-engineers-make-great-leaps-to-fight-coronavirus
[40] https://www.forbes.com/sites/bernardmarr/2018/09/02/what-is-industry-4-0-heres-a-super-easy-explanation-for-anyone/#221c9d9b9788
[41] https://www.rolandberger.com/en/Point-of-View/COVID-19-How-we-will-need-to-rethink-the-aerospace-industry.html
[42] https://www.reuters.com/article/us-airbus-restructuring
[43] https://www.punchline-gloucester.com/articles/aanews/aerospace-manufacturing-facing-75-per-cent-drop-in-revenue
[44] https://www.punchline-gloucester.com/articles/aanews/ge-aviation-lands-394m-engine-contract

Retail & High Street Business Group
Sector Analysis

Post-COVID Issues

- Immediate and severe impact with all but essential stores being closed.
- Businesses are pivoting to online success, restaurants/pubs providing takeaway options are all good indicators of how digital business transformation can benefit the retail sector.
- High percentages of people report feeling unsafe on High Streets, with an age split, younger age groups being less Covid-phobic and more willing to return. The 'Fear of COVID-19 Scale' is an important indicator when planning interventions for different age, sex & ethnicity groups.[45]
- With more digital based delivery of services, a need to reassure the public about COVID safe high streets/retail and to inform about the range of services/products available, the importance of social media interaction based on reliable customer interaction data as part of a business recovery model will grow in significance.
- 15th June reopening was feared (unmanaged crowds) & welcomed (expecting lower footfall but bigger basket sizes). On the day, a limited number of stores did face long queues whilst others saw extremely limited footfall. In major cities large stores did have queues but there appears to have been limited footfall in the more niche shopping areas.
- Stores have invested and are managing the 2 metre social distancing in store e.g. signage, one-way systems, PPE, appointment only. However, the physical distancing and other regulations change with limited notice and this makes them consider delaying COVID safety precautions.
- Alternative retailing processes on High Street are likely to emerge e.g. external vending machines for food, PPE, physical goods/products.
- The public realm outside stores is a local authority responsibility. The effective operation of these spaces has a major role to play in a successful return to the High Street for both retail and leisure. More urban green infrastructure, superb outdoor areas, use of shop front space, terraces, weather resistant structures etc should all be considered. The Grimsey Review, COVID supplement[46] highlights this as one of the key factors for High Street recovery and many of the County's local authorities are adopting similar policies as we move towards High Streets reopening for retail and leisure purposes.
- Accessibility to public conveniences is another key issue. Public reliance on private facilities in cafés/restaurants will now be severely limited.
- Road closures/access changes are clearly a complex issue in retail areas. The benefits of reduced emissions, cycling and more outdoor space for physical distancing must be balanced with the public's COVID reluctance to using public transport.[47] Ensuring people and goods can access the High Street is clearly essential.

---

[45] https://www.sciencedirect.com/science/article/pii/S0165178120313184
[46] http://www.vanishinghighstreet.com/wp-content/uploads/2020/06/Grimsey-Covid-19-Supplement-June-2020.pdf
[47] https://www.politico.eu/article/life-after-covid-europeans-want-to-keep-their-cities-car-free

Retail & High Street

- Green highways e.g. routes, rest points, safe storage to cities & towns need to be put in place to get people into retail areas.

- In Gloucestershire there is optimism over the rise of Localism during the lockdown. This presents an opportunity for retailers in market towns and smaller cities in Gloucestershire beyond just food & beverage. Community high streets with professionally managed external space and a range of local offerings are a possible future setting for High Street retail.

- The night-time economy (post 9pm) will be one of the last sub-sectors to return. This is due to problems with customers maintaining social distancing, ensuring high levels of cleanliness and queue management outside bars, pubs, clubs. September 2020 seems to be the earliest date for reopening the night-time economy (not a fixed date). If not before Christmas 2020 many venues fear they will never return.

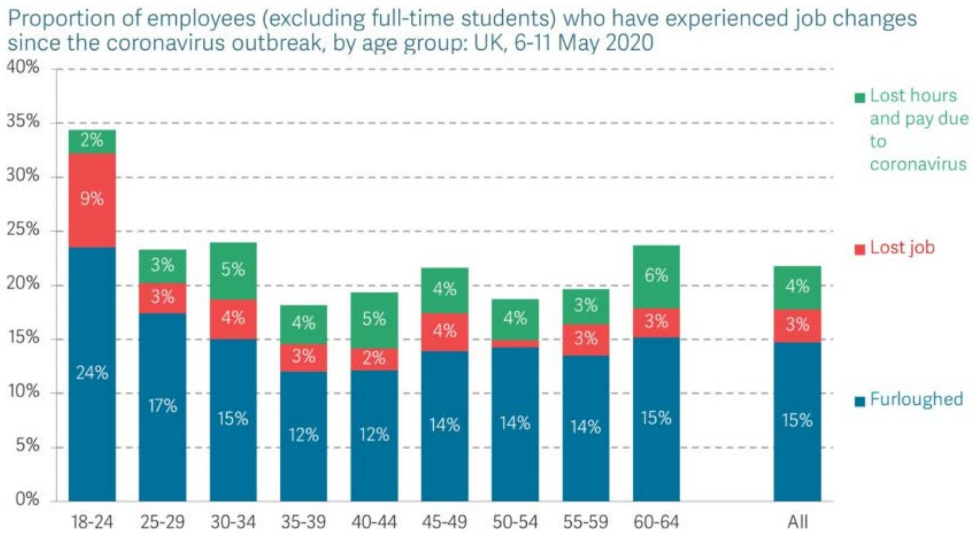
- The opening of the High Street Task Force research[48] and support services to all authorities, Destination Marketing Organisations (DMO) and retailers is a significant benefit for planning the transformation process alongside the Institute of Place Management[49] and the Grimsey Review.[50]

[48] https://www.highstreetstaskforce.org.uk/products-and-services/support-for-all-high-streets
[49] https://www.placemanagement.org
[50] http://www.vanishinghighstreet.com/wp-content/uploads/2020/06/Grimsey-Covid-19-Supplement-June-2020.pdf

Tourism and Hospitality Business Group
Sector Analysis

Post-COVID Issues

- The COVID lockdown created an immediate and severe impact. All tourism businesses shut.
- Vast majority of staff are furloughed, masking redundancies that will happen as businesses decide/accept they cannot reopen as we move towards a reopening of the sector on July 4th. These redundancies will hit 18 -24 year olds hardest, particularly in Arts & Culture, Tourism, Hospitality & Retail where they are over represented.



[51]

- The Visit Gloucestershire partnership was well developed as an initiative prior to COVID. That groundwork has enabled them to quickly open communication channels with destinations, local authorities and accommodation and experience providers.
- Gloucestershire as a predominately rural County of market towns and small cities may be an ideal location for UK Staycation 2020. This is a glimmer of hope in what is likely to represent "Three Winters of Trading" due the seasonal nature of businesses in this sector.
- Outdoor space is seen as key to the sector both for regulatory compliance and consumer's perception of safety. Promoting outdoor activities and the repurposing of public spaces in cities and towns are strong levers to attract tourism.
- The "Open for Business" messaging requires careful delivery so as not to attract too many people. There exists a real concern that a poor visitor experiences anywhere in Gloucestershire will lead to highly negative social media. This is driving a view that Gloucestershire should open as a connected group of attractions rather than by district.

[51] https://www.resolutionfoundation.org/publications/young-workers-in-the-coronavirus-crisis

Tourism and Hospitality

- A registered COVID safety certificate operated by local authorities, like the Food Hygiene Certificate, is seen by the sector as a key lever to successful reopening. The Visit Britain "Good to Go"[52] standard seems to fulfil that need and Gloucestershire should now focus on supporting all its Retail and Tourism businesses to achieve that standard.

- Arts & Culture events and offerings will be severally limited in 2020, the vast majority have already been cancelled for Summer/Autumn 2020. Online festivals and cultural events are being planned but are only part of the solution. The first major physical event seems to be at Gloucester Cathedral 12th October – 2nd November 2020 with the return of Gaia.

- Arts & Culture events are likely to return as small compact events with low key messaging. This "softly softly" approach is understood by all, but the potential for a co-ordinated approach across Gloucestershire should be considered.

- Gloucester City of Culture bid 2025, has a wide range of support and is seen as bringing advantages to the whole County. Some urge caution when considering the cost of constructing a bid against the likelihood of success in what is likely to be a competitive process.

- Managing logistics of operating within a safe physical distance is a concern for all sectors but even more so in Tourism. Physical distancing at 2 metres leads to between 10-20% capacity and 1 metre around 60%. When this settles at 1 metre on July 4th it is still likely that limited customer capacity and reduced margins against similar costs will lead to closures of previously successful businesses. Tourism businesses are already making this decision as furlough rules change and there is limited desire to make further capital investments in what for some, may be lifestyle businesses.

- Cash flow for small businesses is strained and they have no easy access to finance. Many small business owners felt particularly overwhelmed by the COVID closures, as they had little experience of business planning or grants etc. Initial concerns from the sector that the County's business support mechanisms were not for them, were quickly addressed by the Gloucestershire Growth Hub network, targeting and packaging specific support for these businesses.

- 4th July reopening is attracting booking enquiries. Room rates are not being reduced but providers expect to have to do deals to attract people back. However, with physical distancing available accommodation is likely to be only 30-40% of normal capacity. Outdoor based accommodation: camping, caravanning, rural holiday lets etc maybe able to offer more usual levels of availability but will be limited by the need to provide shared services e.g. toilets, showers etc.

- The Arts & Culture sub sector is struggling to find a way through this crisis due to venue physical distancing, restricted funding & customer reluctance. Across the creative industries in the UK 73% predict a fall in annual turnover of more than 50% in 2020.[53] Virtual & outdoor events are only very partial solutions. Creative industries are projected to be hit twice as hard as the wider economy across the UK and up to three times as hard regionally. This is of concern when considering the predominance of the 18-24 year old age group in the Creative sector.

---

[52] https://www.visitbritain.org/were-good-go-industry-standard-all-sectors-tourism-industryhe
[53] https://www.creativeindustriesfederation.com/sites/default/files/inline-images/20200619_OE_Slides.pdf

Voluntary Community and Social Enterprise (VCSE)
Sector Analysis[54]

The Voluntary Community and Social Enterprise (VCSE) seek to…

- The VCSE sector are embedded in the communities they seek to serve and provide direct connections to groups that are often considered "hard to reach" by statutory services.
- VCSE sector has significant expertise that is invaluable in helping achieve improvements across the health and social care system by supporting a focus on early intervention, prevention & self care/management.
- Because the VCSE often works within specialist areas, their expertise and knowledge of the social and holistic impact of specific issues such as disability, or mental health challenges, comes through a non-clinical lens and can often provide a different perspective on challenges and solutions. The VCSE is key to the NHS strategic shift - acute care > prevention, community based care & support & self management.
- VCSE organisations promote understanding of the specific needs of their communities. Its diversity, flexibility and level of innovation helps it reach and support those hardest to engage.
- We aim to build emotional resilience and independence by facilitating an asset based approach to the co-production of services. The VCSE' expertise of lived experience is crucial in designing more effective, sustainable services.

Pre-COVID key factors for the Voluntary Community and Social Enterprise (VCSE) sector in Gloucestershire

- There are over 5,550 VCSE organisations in Gloucestershire employing over 7,000 people with over 14,000 registered volunteers.
- Registered charities, excluding educational institutions, had an income of £464,662,775 in 2018-19. However, 33.6% of organisations have a turnover of £25,000 or less.
- 50% of VCSE organisations deliver on public sector contracts which means the VCSE and Public Sector are reliant on one another, the VCSE for contracts and funding and Public Sector for VCSE service delivery.
- 73% of organisations surveyed were concerned about their long-term future with uncertainty around funding the most common reason for this concern.

[54] Compiled by VCS Alliance, Barnwood Trust and GFirst LEP

Voluntary Community and Social Enterprise (VCSE)

Pre-COVID SWOT Themes

STRENGTHS

ST1	Innovative
ST2	Strong infrastructure body in VCS Alliance
ST3	Large and diverse with good links into communities
ST4	Have shown their agility as organisations through COVID-19 crisis

WEAKNESSES

WT1	Some business models are fragile
WT2	Huge variation which makes it hard for people to understand and cater for all
WT3	Lack of joined up ness in terms of messaging and services – although this is getting better

OPPORTUNITIES

OT1	VCSE organisation are innovative and agile and these qualities will be needed to create a "new normal" now
OT2	Change in what is important to people/businesses with increased importance of health, culture, green – all areas that the VCSE plays a large role in
OT3	Role VCSE can play in maximising volunteering building on COVID-19 response
OT4	Leadership role in systems thinking and thought leadership

THREATS

TT1	Those who had diversified income to trading models were hit hardest by Covid-19 which might drive a reluctance to drive revenue in this way in future
TT2	Funding in 6-9 months time may fall off a cliff
TT3	The "poor charity" sector narrative may compromise positioning as an equal and very relevant partner
TT4	Lack of understanding of the important role the sector plays and their contribution as "businesses"

Voluntary Community and Social Enterprise (VCSE)

Post-COVID Issues

- In common with all other sectors, the VCSE have already experienced a huge financial shock and are of course likely to continue to do so. But unlike other sectors, the social and economic inequalities that have been deepened by this crisis, are leading to an increase in demand for services.

- In many cases, VCSE organisations are those which are most trusted by the most vulnerable in our communities, and as such, best positioned to support individuals coming out of lockdown. In many cases, the needs of these individuals have increased, and so the sector is needing to seek out new and innovative ways to support them.

- As such VCSE organisations face the disturbing situation of being cognisant of specific need, knowing how to respond to this, and yet being unable to do so because of a lack of funding. Despite being commissioned to deliver statutory services, the VCSE is not woven into their systems and processes, and so does not benefit from training, PPE, HR support, and other resources that help with recovery.

- VCSE organisations have been instrumental in a positive response to C-19 in Gloucestershire, in many cases mobilising support in the form of food, counselling and social support more quickly than either small community groups or statutory agencies were able to do. Ensuring that they are woven into future disaster risk recovery plans will be critical in future, if many of them are to survive the squeeze on resources that the financial shock, plus the increase in demand will continue to have.