



Buckinghamshire
LOCAL ENTERPRISE
PARTNERSHIP
THE ENTREPRENEURIAL HEART OF BRITAIN

An audit of Buckinghamshire's green economy

A report for Buckinghamshire LEP

A WPI Economics report for Buckinghamshire LEP

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Background to this report

Delivering net zero and other environmental goals requires a swift and significant transition across a whole range of activities, such as heating, transport and power generation. As part of previous work on this topic, WPI Economics has estimated that, if a net zero pathway is followed, then the growth in the green economy over the next 10 years will be double that of the digital sector between 2009-2019 (8% per year versus 4%). For businesses, local areas and regions, this transition presents a series of challenges and opportunities.

This report helps to inform a route map supporting the future growth of the green economy in Buckinghamshire. It explains how examples of best practice and clusters of excellence can be further supported, and how the principles of mainstreaming net zero practices can be extended across the Buckinghamshire business base. This builds on important work to date across Buckinghamshire, undertaken by a range of stakeholders, including Buckinghamshire LEP and its partners.

Three distinct but complementary pieces of research fed into the evidence base underpinning this report. These are:

- Analysis using The Data City's platform to generate a list of companies operating within the green economy in Buckinghamshire, based on a taxonomy developed by WPI Economics, The Data City, and Buckinghamshire LEP.
- Semi-structured interviews with key experts and stakeholders across Buckinghamshire, complemented by a desk-based review of key Buckinghamshire economic documents and strategies.
- A survey of Buckinghamshire businesses, drafted by WPI Economics and administered by Buckinghamshire LEP.

The results of this work are summarised in this report.

Accompanying this report is an [interactive map](#) of the green economy companies we have identified as operating within Buckinghamshire. The map has been produced by WPI Economics and is based on the list generated by The Data City. The list generated is not exhaustive. If you have suggestions of companies to add to the list, please contact Buckinghamshire LEP via research@buckslep.co.uk

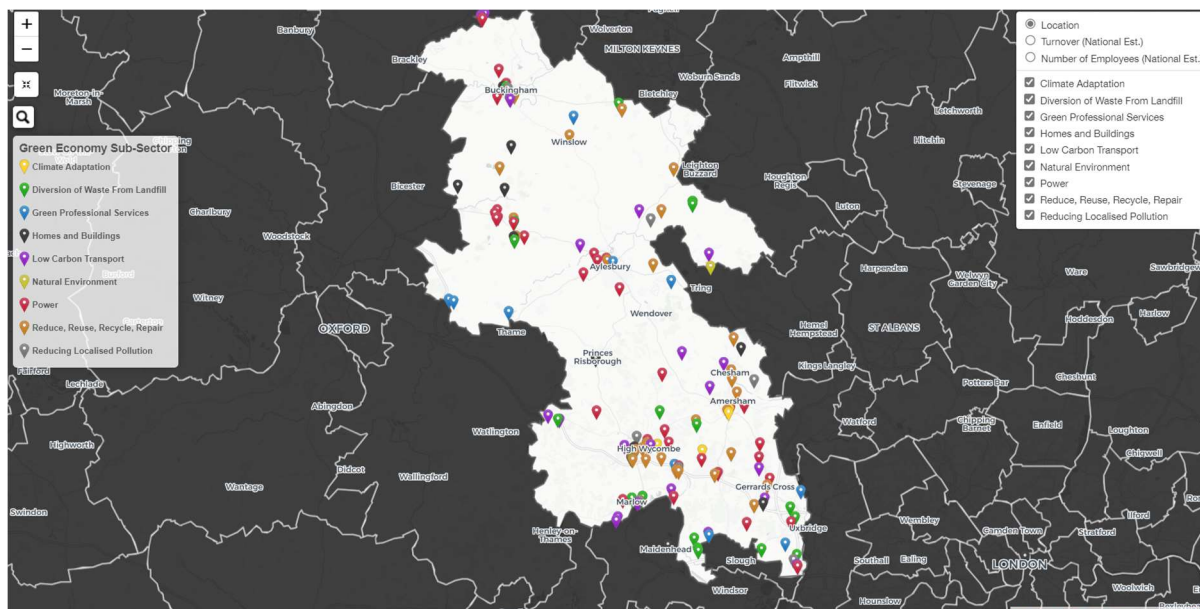
EXECUTIVE SUMMARY

The Net Zero Review led by Chris Skidmore set out the potential for substantial dividends for the UK if we deliver emissions reductions at pace across all sectors of the economy, leveraging the expertise and specialisms of different places across the country.¹ With the right support and policy drivers in place, there is huge potential for Buckinghamshire (Bucks) to secure significant benefits from the transition to a green economy and play a distinct role in building the specialist sectors that will drive emissions reductions across the UK and internationally. This report was commissioned by Buckinghamshire LEP to provide an initial analysis of the nature of Bucks’ green economy, understand the potential for growth and development, as well as set out a roadmap for delivery.

The green economy cannot be defined using standard classification systems (e.g. Standard Industrial Classification (SIC) codes). Therefore, to identify green economy companies operating in Buckinghamshire, we used an experimental methodology using local knowledge and The Data City’s Data Explorer platform to develop a taxonomy and generate a list of companies.

Our analysis generated a list of **151 green economy companies in Bucks**. Many of these businesses operate across multiple sectors, e.g. both low carbon transport and power. Some of these firms will be headquartered in Bucks, whereas others are national or multinational firms. As of June 2023, we estimate that the combined turnover and Full Time Equivalent (FTE) headcount of these firms is around **£9.7 billion and 40,000** respectively.¹² The companies are spread across Bucks, as can be seen in figure 1. An interactive version of the map can be accessed [here](#).

Figure 1: Map of Bucks green economy companies



Source: WPI Economics and The Data City analysis

¹ The Data City utilises Real Time Industrial Classifications (RTICs) for the building of its lists, and so these figures represent a snapshot in time.

² Turnover and employee figures are for the company as a whole, not purely their Buckinghamshire-based operations.

The Data City analysis and the qualitative research found that Bucks' key strengths and opportunities lie across four key sectors:

- **Low carbon transport** – companies such as Robert Bosch and Gridserve, both headquartered in Bucks, are at the forefront of developing and scaling the technology required to address the UK's stubbornly high emissions from surface transport. Together with the rapidly growing EV technologies within the Silverstone Cluster, there is the potential for Bucks-led innovation to deliver significant change.
- **Reduce, Reuse, Repair, Recycle** – a wide range of companies in Buckinghamshire operate in this sector, from Olleco (who recycle waste food into renewable energy) to GreenTech Distribution (who recycle old mobile devices) and start-up sustainable nappy companies Kit & Kin and Mama Bamboo.
- **Diversion of waste from landfill** – major multi-national waste company Biffa is headquartered in Bucks, as are a number of other smaller firms, mainly around the High Wycombe and Marlow areas. Getting to net zero will be impossible without addressing emissions associated with resource consumption, for which this sector is key.
- **Power** – civil nuclear supplier Urenco along with a number of solar energy and biomass companies have a presence in Bucks.

Our qualitative research helped to further elaborate on some of the key characteristics of Bucks' wider economy, how these drive its green specialisms, and where there are opportunities to build and strengthen these.

- One of Bucks' key features is **a series of business clusters that help to scale innovative firms and approaches**, including green technologies. This is particularly true of Silverstone Technology Cluster, which supports a number of low carbon high-performance technology companies.
- A major strength of Bucks identified by the research is its institutions – particularly **Buckinghamshire Business First (BBF) which plays an exceptionally strong role** in engaging and supporting the business community in Bucks to realise the opportunities of a green economy.
- Skills were an issue frequently raised by stakeholders, with **skill sets locally highlighted as an asset**, while also expressing concern about **national skills shortages for STEM based roles**.
- Bucks' proximity to the capital plays an important role for many firms, with **London acting as a route for finance and certain skill sets** for many sectors.
- Bucks has **a strong rural business base, which acts a route for agricultural innovation and food security**, key to delivering net zero goals.
- A key weakness of Bucks is its **car dependency and poor public and sustainable transport links**, something which urgently needs to be addressed to fully realise the benefits of a green economy in the area.

- **A lack of national policy clarity** acts as a major barrier for many businesses, meaning that the BBF Growth Hub needs to play an important role in interpreting national policy into meaningful opportunities for SMEs and other companies across Bucks.
- Closer links and improved awareness are needed to highlight net zero innovation from within the Buckinghamshire business base, and to demonstrate how this innovation can benefit the local area, reinforcing **strong environmental convictions** perceived to be held within the wider Bucks community.

Towards the end of this report (table 3) we make a series of recommendations across key areas for supporting the growth of the green economy in Bucks. Some of the key recommendation areas are summarised in the box below:

Box 1: Summary of recommendations for growing Buckinghamshire's green economy

- **Innovation and collaboration** - local stakeholders should collaborate on green economy initiatives to build long term links between businesses, universities and the public sector and drive innovation in the green technologies of the future.
- **Green skills development** – the Buckinghamshire Local Skills Improvement Plan (LSIP), developed and managed by Bucks Business First, can act as a vehicle to help ensure local green skills education and training provision meets the needs of Bucks businesses.
- **Business support** – due to its crucial role, it is vital to secure the ongoing role of Bucks Business First in supporting Bucks firms to thrive during their green transition.
- **Targeted direct investment** – there is a need for investment into corporate infrastructure for initiatives that will reduce energy costs and operating overheads for innovative businesses.
- **Engaging the Bucks public** – stakeholders should collaborate to help educate and inform residents of the importance of local green initiatives and demonstrate how these link to national and global goals of tackling climate change.

1. Introduction

The net zero transition represents a series of social and economic challenges and opportunities for the UK. In many cases, the nature and extent of these challenges are highly place-based. Different parts of the country face a different transition based on, for instance, the density of the population, the type of building stock, the extent of green space, and any historic economic specialisms, such as manufacturing or professional services.

Managing the transition to net zero needs to be done in a way that maximises the benefits, such as building competitive industries, improving air quality, creating greater resource efficiency, while managing the risks such as lost jobs in high carbon industries. Given the varied nature of the transition according to place, getting the policy and measures right requires a strong, locally-informed evidence base, as well as strong national leadership, as others have identified.ⁱⁱ

Buckinghamshire (Bucks) LEP, along with key partners Buckinghamshire Business First (BBF) and Buckinghamshire Council, are already working hard to balance these challenges and opportunities associated with the successful delivery of green economy. This research by WPI Economics and The Data City looks to build on this work to date, creating a clear picture of:

- Bucks' green economy today;
- The opportunities for growth in the future; and,
- How to fully realise the potential of Bucks' green economy.

It is first worth considering the broader context of Bucks' overall economy, before focusing on green businesses specifically.

The Buckinghamshire economy

Buckinghamshire's economy, whilst relatively strong, has weakened in recent years and was hard-hit by the Covid-19 pandemic.

In 2021, Buckinghamshire's total Gross Domestic Product (GDP) in current prices was £18,485m. The County's GDP per head stood at £33,290, lower than the national (England) average of £34,690.

Buckinghamshire experienced a 12.2% decline in GDP in the year most affected by the Covid-19 pandemic (2020). This was greater than the national decline of 11.5%. Buckinghamshire's GDP rebounded by 7.8% between 2020 and 2021. This was lower than the national (England) average of 8.9%, and places Buckinghamshire in 32nd position of the 38 Local Enterprise Partnership (LEP) areas.

At sector level, Buckinghamshire's production sector (agriculture, manufacturing, energy and utilities) performed better than the national average over the last two years. Across these sectors, output was higher in 2021 than in 2019. Buckinghamshire's service sector (which is much larger than the production sector) fared less well, experiencing a harder hit from the pandemic and slower recovery than nationally.

Most of Buckinghamshire's industries had not returned to pre-Covid levels of output by 2021. Output remained considerably lower (in volume terms) in three industries: wholesale and retail; health and social care; and real estate, and considerably lower (in % terms) in the transport and storage industry.

Looking at the long-term trend, Buckinghamshire has experienced very slow growth in GDP over the last 20 years. In 2021, GDP in Buckinghamshire was 14% higher (in 2019 prices) than in 2001. This places Buckinghamshire in 36th position of 38 LEPs. Across England as a whole, GDP was 36% higher in 2021 than in 2001.

At the beginning of 2022, there were approximately 65,800 private sector businesses in Buckinghamshire. More than half of these businesses (approximately 34,600) had no employees and were not registered for VAT / PAYE. There were 31,200 private sector VAT/PAYE registered businesses in Buckinghamshire in 2022.

The vast majority of VAT/PAYE enterprises in Buckinghamshire are micro in size (employing fewer than 10 people). Buckinghamshire has the highest proportion of micro firms of all 38 LEP areas. Data from 2020 shows that whilst only 0.3% of businesses in Buckinghamshire are large, they provide 41% of employee jobs in the local economy. Nationally, 54% of jobs are in large firms.

Approximately one in five businesses in Buckinghamshire operates in the 'professional, scientific and technical' sector, a higher proportion than nationally. This sector includes businesses such as law firms, accounting firms, and engineering companies. Buckinghamshire has a higher proportion of businesses operating in the 'information and communication' sector than the national average. This sector includes computer programming and consultancy firms, and motion picture, video and TV companies. 11% of Buckinghamshire's VAT/PAYE registered businesses operate in this sector, compared with the national average of 8%.

Over the last decade, the 'construction', 'business administration & support services', and 'information & communication' sectors have seen the greatest increase in business numbers in Buckinghamshire. Whilst there have been small drops in the number of 'arts' and 'wholesale' businesses over this time period.

Between 2021 and 2022, the 'retail' and 'construction' sectors saw the greatest increase in business numbers, likely to be driven by the accelerated trend towards online retailing due to the Covid-19 pandemic, large infrastructure projects such as HS2, East West Rail and the extensive house building programme in and around Aylesbury.

The professional, scientific and technical sector along with information and communication sector saw a large decrease in the number of businesses between 2021 and 2022. This could be related to IR35 tax changes.

Overall, while there is a relatively strong and diverse economy in Buckinghamshire, there is also substantial room for growth. The expansion of the green economy is one major avenue through which Bucks may be able to accelerate growth across its economy, creating jobs and wealth for residents.

2. Buckinghamshire's green economy today

The initial stage of our analysis centred on the development of a green economy taxonomy through which to collect and analyse information on the green economy in Bucks. We worked with Bucks LEP to develop this taxonomy, breaking the green economy down into 10 policy areas to aid analysis.

Using this taxonomy, a supervised machine learning process was undertaken to identify companies whose activities fall within each sector.³ The taxonomy is set out in table 1.

³ This process is carried out in Data Explorer, The Data City's proprietary platform, which uses web scraping and machine learning for industrial classification. It creates training set data (a sample of companies' websites that represent the sector) that their algorithm uses to find common language patterns across the different websites. Then, the platform scans The Data City's database with over 1.6 million companies with website text data information available and identifies those that use similar language to those selected for the training set. The output is a list of companies that share the same language patterns in their website text.

Table 1: Taxonomy for Bucks' green economy

Policy area	Description
Homes and buildings	Including retrofit, building new energy-efficient homes, heat pumps, smart devices and controls, heat networks and hydrogen boilers.
Low carbon transport	Including low or zero emission vehicles, aviation, maritime, rail and road, public transport, walking and cycling.
Climate adaptation	Including flood defences, retrofitting of buildings to be resilient to extreme weather/climate events, nature-based solutions to reduce climate impacts and civil and mechanical engineering for infrastructure adaptation.
Reduce, reuse, recycle, repair	Including circular economy companies seeking alternative uses or extending the life-cycle of goods and products.
Natural environment	Activities that enhance the natural environment, often supporting carbon sequestration. Including woodland planting, restoring peatland, wetland restoration and habitat protection.
Green professional services	Including green finance, climate change research and development and climate change strategy, and policy activity.
Power	Including renewables (such as wind, solar and hydropower), nuclear power, grid infrastructure, energy storage and smart systems technology.
Diversion of waste from landfill	Including recycling, the resource sector, and traditional waste management companies.
Business and industry (industrial decarbonisation)	Including hydrogen production for industrial use, electrification of industrial processes, carbon capture, utilisation and storage (CCUS), and energy efficiency in industrial settings (e.g. heat retention).
Reducing localised pollution	Monitoring and abatement activity for localised pollution such as air and water pollution.

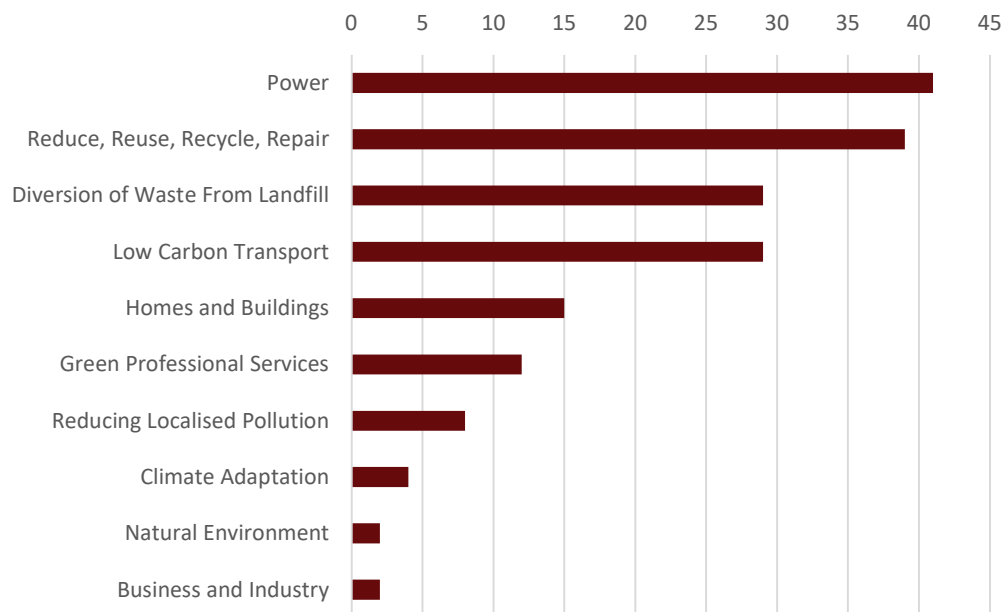
Source: WPI Economics and Data City analysis

Summary of Bucks’ green economy

Our list identifies **151 green economy companies** in Bucks within the taxonomy we developed. Figure 2 illustrates which sector or policy area these companies are operating in. Some of companies operate across multiple sectors, e.g. low carbon transport and power; some of these firms will be headquartered in Bucks, whereas others are national or multinational firms.

The combined turnover and headcount of these firms is **around £9.7 billion and 40,000 respectively**.

Figure 2: Number of green economy firms identified in Bucks by policy area



Source: WPI Economics and Data City analysis

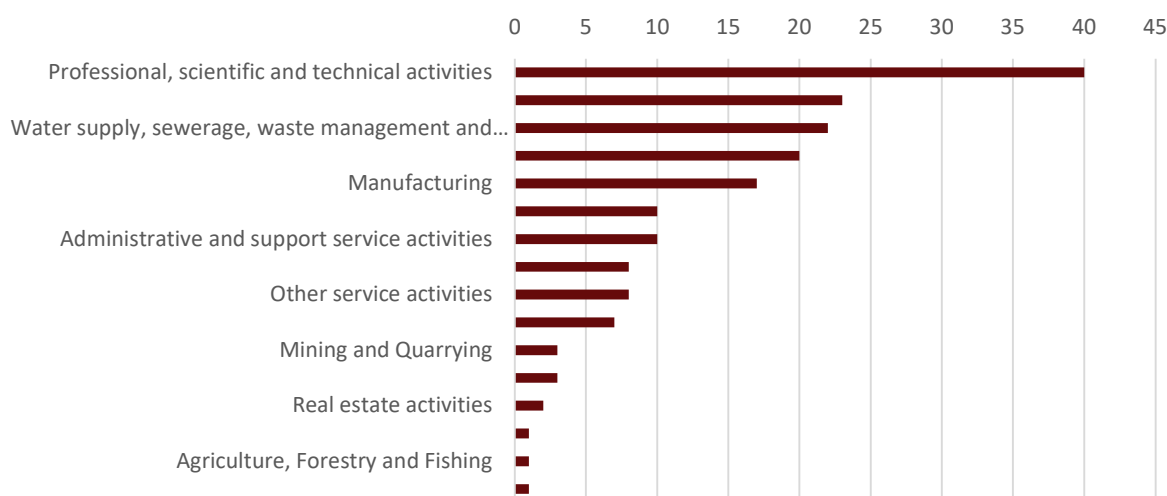
Notable green economy companies we identified in Bucks include:

- Biffa
- Gridserve
- Whiffaway
- Lunaz
- Urenco

A case study on each of these companies is included in this report.

Using The Data City platform, we can assess which overall Standard Industrial Classification (SIC) code sections dominate the Bucks green economy.

Figure 3: SIC section counts of identified green economy companies in Bucks



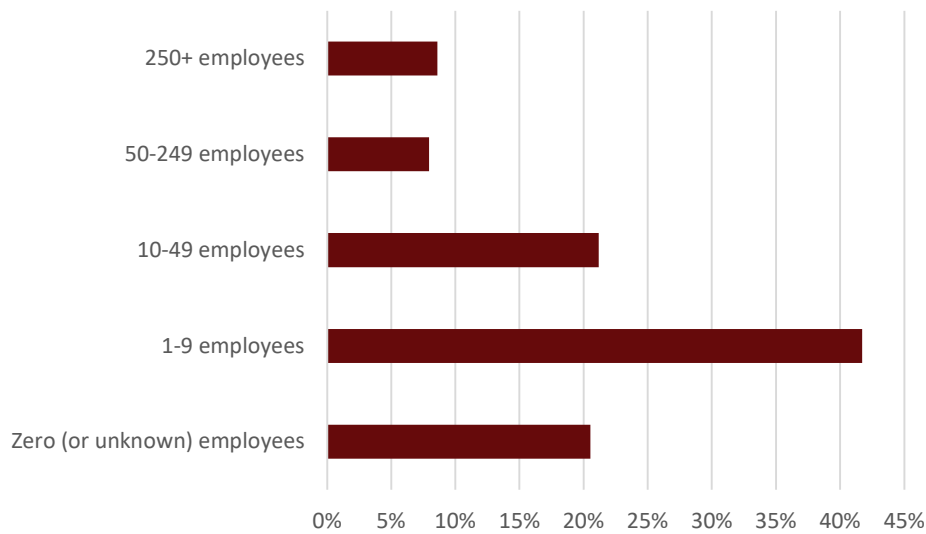
Source: WPI Economics and Data City analysis

Figure 3 shows that Buckinghamshire's identified green economy firms are spread across a range of SIC codes, but that there is a particularly high number of companies in the Professional, Scientific and Technical Activities SIC sector.

Further analysis of the data generated for this report reveals that:

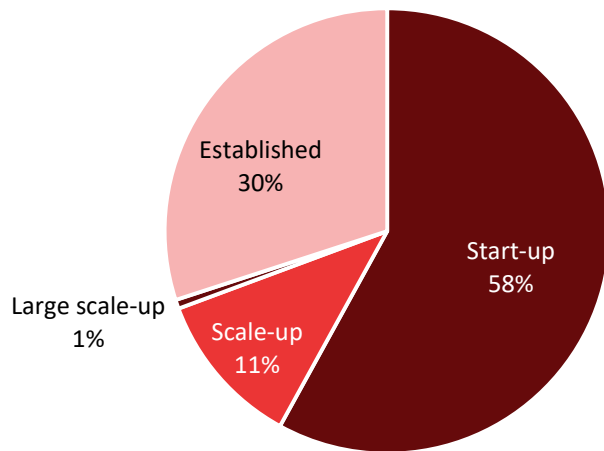
- The average annual growth of employees in Buckinghamshire's identified green economy companies is estimated to be 3.2%. This is broadly in line with other parts of the country.
- 26 of Buckinghamshire's identified green economy companies have received Innovate UK grant funding in recent years, totalling £48 million.
- The majority of Buckinghamshire's identified green economy companies are UK owned, with 16 having foreign parent companies.
- The majority of the companies identified are SMEs (91%), with 9% employing more than 250 people (figure 4).
- The majority (58%) of the green economy companies identified are in the start-up phase. 12% are in a growth / scale-up phase and 30% are established companies (figure 5).
- In terms of company-level growth, the majority of Buckinghamshire's identified green economy firms (for which data is available) are classified as stable. However, a greater proportion are growing (22%) than are shrinking (11%) (figure 6).
- Two thirds of the identified green economy companies were established within the last 15 years (figure 7).

Figure 4: Number of employees in Buckinghamshire’s identified green economy companies



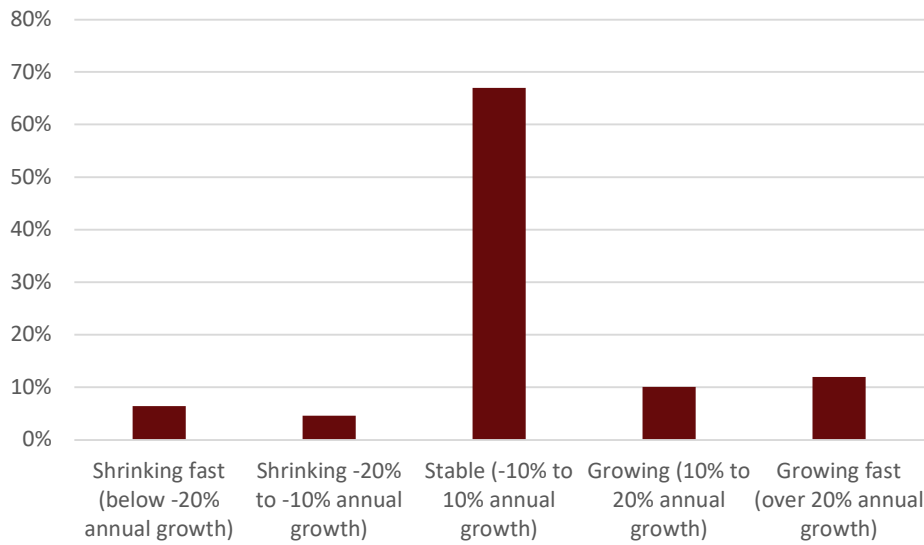
Source: WPI Economics and Data City analysis

Figure 5: Stage of evolution of Buckinghamshire’s identified green economy companies



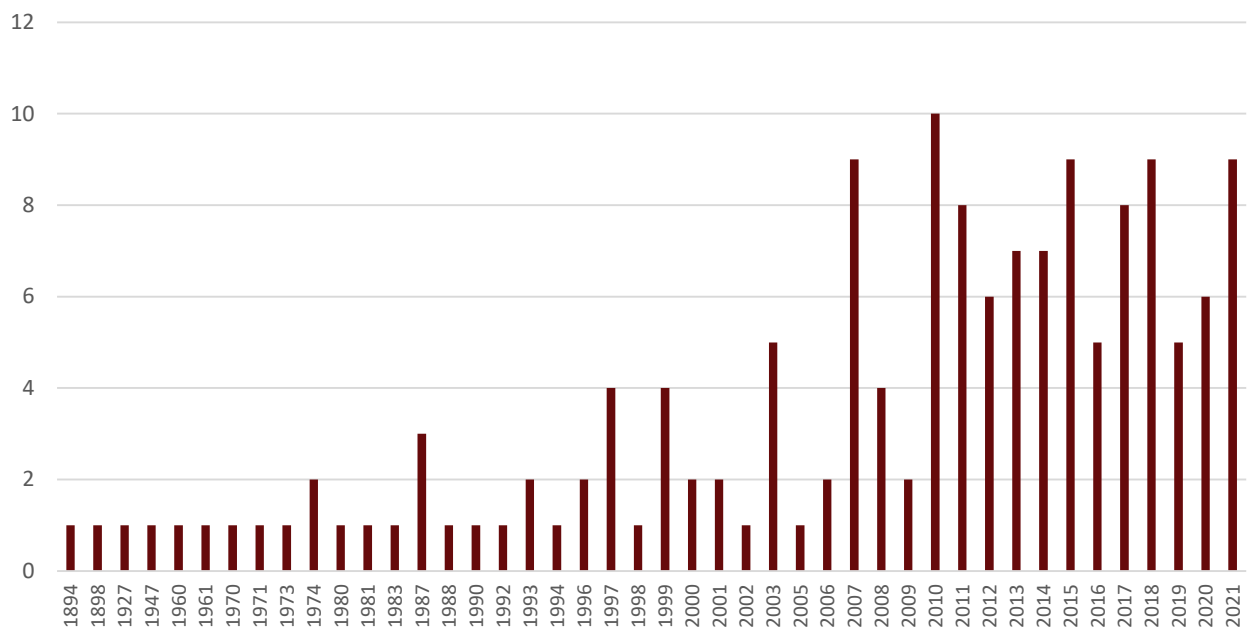
Source: WPI Economics and Data City analysis

Figure 6: Company-level growth of Buckinghamshire’s green economy companies



Source: WPI Economics and Data City analysis

Figure 7: Year of establishment of Buckinghamshire’s identified green economy companies



Source: WPI Economics and Data City analysis

The following section looks at three sub-sectors in which the quantitative analysis alongside qualitative research suggests that Buckinghamshire has a competitive advantage or strongest growth potential.

Low carbon transport

Decarbonising transport is one of the primary challenges in getting to net zero, particularly for a largely rural area such as Bucks. Surface transport represents the greatest contributor to the UK's emissions according to the Climate Change Committee (CCC), and, other than during the Covid-19 pandemic, emissions from this sector have remained static since 1990.ⁱⁱⁱ A combination of modal shift and a switch to electric vehicles will be key to achieving decarbonisation of surface transport, in addition to a number of co-benefits such as improving air quality.

Our research identified **29 low carbon transport companies** operating within Buckinghamshire.

Our qualitative research suggests that this is heavily influenced by firms in the Silverstone Technology Cluster (including Lunaz, Sietta Group, Applus+ 3C Test and Danecca), as well as other major firms in Bucks such as Robert Bosch and Instron, both of whom are currently heavily invested in the development of cutting-edge sustainable automotive, energy and appliance solutions. In addition, Gridserve, who operate one of the largest networks of electric charging stations in the UK, is a key Buckinghamshire-based high growth firm operating within the low carbon transport sector (see case study 1).

These firms are centred around the innovation and research aspects of low carbon transport, and so this is a potential area for Bucks to further build and develop a specialism, as we will go onto discuss in future sections.

Case study 1: [Gridserve](#)

Gridserve is a low carbon transport infrastructure company that operates one of the largest networks of electric charging stations in the UK from its headquarters in Iver in south east Bucks. In line with its mission statement 'to deliver sustainable energy on the scale needed to move the needle on climate change', Gridserve opened the UK's first all-electric car charging forecourt in 2020 and has since opened further all-electric charging stations across Buckinghamshire. Gridserve also operates an electric vehicle leasing service and a growing network of solar farms, providing renewable solar electricity to the National Grid.

Gridserve is on a high growth trajectory. In 2023 it raised £200m for its electric vehicle (EV) infrastructure from Infracapital. This will be used to roll out more than 5,000 EV chargers by 2025. It will also invest in its solar farms, which provide energy for its "sun-to-wheel ecosystem" and expand its card leasing division.

Power

Decarbonising the power sector is both a crucial challenge in and of itself, and an essential prerequisite to decarbonising other sectors, many of which will rely on a vast and reliable supply of renewable electricity. Generating more power, improving battery storage, and strengthening the resilience and capacity of the grid are all vital components of a net zero power system captured by The Data City lists.

Our research identified **41 power companies operating within Buckinghamshire**. Civil nuclear supplier Urenco (see case study 2) are based within the County, along with a number of solar energy and biomass companies.

A number of consultancies active in this space also make Bucks their home. This suggests a focus within the Bucks green economy on the professional services, technical and innovation aspect of low carbon sectors.

Case study 2: [Urenco](#)

Urenco is a world leader in the supply of uranium-based nuclear power. From its global headquarters in Stoke Poges in South East Bucks, Urenco operates a network of uranium enrichment plants in the UK and Europe, providing one of the largest supplies of sustainable uranium-based nuclear power to over 15 countries. Urenco is also a major investor in nuclear innovation activities focused on sustainable industry and medicine. Within Bucks, Urenco employs over 200 people and is an important driver and investor in Bucks' green technology sector.

In 2022, Urenco was part of a consortium (also comprising EDF UK R&D, the UK Atomic Energy Authority (UKAEA) and the University of Bristol) to be awarded £7.7 million in funding from the UK's Department for Business, Energy & Industrial Strategy (BEIS) to develop a hydrogen storage solution.

Reduce, Reuse, Recycle, Repair (RRRR)

Addressing emissions requires a step change in how we produce and manufacture goods, but we must also find ways of using fewer resources. Previous analysis has suggested that as much as 45% of our emissions are consumption^{iv} rather than production based, and so resource efficiency is key to getting to net zero. Sectors under the Reduce, Reuse, Recycle, Repair (RRRR) sector contribute to this mission in a range of important ways.

Our research identified **39 RRRR companies operating within Buckinghamshire**.

Major multi-national waste company Biffa (see case study 3) is headquartered in Bucks, as are a number of other smaller firms, mainly around the High Wycombe and Marlow areas. Other key players in this sector in Buckinghamshire include Bucks Recycling, Arla Foods and FCC Buckinghamshire. A wide range of other companies operate within this sector locally, from Olleco (who recycle waste food into renewable energy) to GreenTech Distribution (who recycle old mobile devices) and start-up sustainable nappy companies Kit & Kin and Mama Bamboo.

Case study 3: [Biffa](#)

Headquartered in High Wycombe, Biffa is one of the UK's leading sustainable waste-management companies. With an estimated turnover in excess of £100m and over 250 employees within Bucks, Biffa collects and recycles waste from thousands of businesses and millions of households throughout the UK, playing a major role in the local and nation-wide diversion of waste from landfill into recovery and redistribution.

In early 2023, Biffa were acquired by US-based energy investment firm Energy Capital Partners for £2.1bn, providing additional investment for new environmental infrastructure.

3. Key characteristics of Buckinghamshire's green economy

Building on The Data City analysis, this section considers how wider factors in Bucks contribute to the current make up of its green economy, as well as how they affect its ability to grow and strengthen in certain areas in future.

Strengths

Innovative green clusters

From the qualitative research, the distinguishing feature – and arguably greatest existing strength – of Bucks' green economy is the presence of an inter-connected network of highly innovative businesses specialising in the development and commercialisation of green technologies.

A key component of innovation in Bucks was highlighted as being the Silverstone Technology Cluster (STC). The STC is a not-for-profit organisation that “exists to nurture, bring together and fund the growth of engineering and software SMEs” in Silverstone and the wider Bucks area. Although not a necessary condition of membership of the STC, many of its members are directly involved in development of green technologies. It was stated that approximately 20% of businesses in the STC are involved in the field of electric automation, for example:

- **Lunaz** is currently working on a technology to enable existing petrol and diesel vehicles to run on electric power while reducing up to 90% of material and embedded carbon emissions (see case study 4).
- **Saietta's** focus is to speed up transition to electric propulsion for all forms of mobility on land and sea, helping to clean up the air in mega-cities around the globe.
- **Delta Cosworth** is developing new catalytic generator technologies that have the potential to accelerate the wide-spread adoption of plug-in electric vehicles by reducing battery size and extending range.

Case study 4: [Lunaz](#)

Lunaz is an upcycling electric vehicle company, which specialises in the restoration and electrification of classic British cars such as Aston Martins and Jaguars. Lunaz is rapidly becoming a leading innovator in the green transport sector from its Silverstone headquarters. Lunaz has recently expanded its operations to include the upcycling of industrial HGV vehicles as a green and cost-saving alternative for both commercial and non-commercial services that are looking to replace their existing non-electric HGV fleets.

In February 2022 it was announced that Lunaz had hit a \$200m valuation, as it closed a private funding round to pump into a major manufacturing facility.

In large part because of this collective emphasis on green activity, even those members of the STC who are not directly involved in the development of green activities are nevertheless broadly focused on building a sustainable model with the aim of reducing both long-term costs and carbon emissions.

Beyond the STC, there are other clusters and SMEs that are directly involved in the development of green technological and commercial products. For example, the Westcott Venture Park/Space Cluster is home to the Westcott Agri Living Lab (see case study 6) and also a number of businesses, such as Bucks Recycling and Ecopac, who provide innovative and sustainable recycling solutions to businesses in Bucks and across the UK, among a range of other innovative firms in other sectors.

Another notable leader in the Bucks green economy is Whiffaway (see case study 5), who are fast emerging as a global industry leader in the development and commerce of green-friendly bathroom products for both consumers and businesses.

Case study 5: [Whiffaway](#)

Whiffaway is an environmental solutions company, specialising in the design, installation and global supply of innovative green bathroom products. Based in Loudwater in south central Buckinghamshire, Whiffaway is the pioneering inventor of the world's first retro-fit Waterless Urinal System which has developed a particularly strong reputation in parts of the world where access to clean water is limited. Whiffaway provides a range of sustainable and affordable green bathroom solutions to both households and commercial clients in the UK and abroad, with an estimated turnover of £6m.

Finally, Bucks is also home to the UK headquarters of multinational automotive and technology company Robert Bosch, which is currently heavily invested in the development of cutting-edge sustainable automotive, energy and appliance solutions.

Institutional infrastructure

A second distinguishing feature and strength of the green economy in Buckinghamshire is the existence of a robust, highly-developed and business-friendly institutional infrastructure. Stakeholders were unanimous in their praise for the strategic and supportive leadership and green economic vision of Buckinghamshire Business First (BBF) in particular. Their Low Carbon Workspaces grant was highlighted as valuable by a number of participants. More broadly, it was seen as extremely helpful to have a single body that was able to reach such a broad swathe of the Bucks business population.

In the words of one stakeholder, “we would not be aware of the many green opportunities available to us without BBF”. It was noted by many participants that this is something missing in a number of localities, and that being able to engage effectively with SMEs was a longstanding policy problem facing the UK more broadly.

The fact that, unlike other areas of the country, Bucks is covered by one local authority, one LEP and one growth hub, was identified as a major strength and opportunity in terms of institutional collaboration.

Skills

Stakeholders highlighted the strong and diverse skills pool that exists in the local and surrounding areas of Bucks as a key part of the success so far of its green economy and the basis for future growth.

The existing institutional infrastructure in Bucks plays a major role here. Educational institutions such as the Buckinghamshire New University, Buckinghamshire College Group and Bucks Skills Hub provide multiple channels through which young people and workers can acquire new skills, and through which businesses can, as one stakeholder put it, “employ locally and further nurture talent through internal training and additional external qualifications”.

This preference for employment of young workers from within Bucks was broadly held by stakeholders on the basis that local employees were generally more committed to working in Bucks in the long term. Stakeholders explained that for this reason they were more confident and willing to invest time and resources in the training and up-skilling of local workers, resulting in a more secure, dedicated and skilled workforce to the benefit of both the business, green industry and the wider economy in Bucks.

Furthermore, the proximity of Bucks to multiple university cities such as Oxford and London, provides businesses with access to the type of skilled professionals and engineers required by green technology companies.

The Rural Economy

As a county that is 82% rural in its geography Bucks has a large and significant farming sector, with around 3,500 agricultural businesses. The invasion of Ukraine and its resulting impact on global food prices has highlighted the importance of domestic food production, and the importance of the UK’s farm businesses as a result.

As well as being vital for food production, the effective management of land and the natural environment is essential for delivering net zero and environmental goals. Land management supports better sequestration of carbon including through enhanced soil management, as well as stewardship of woodland and hedgerows.

All of these have wider benefits in managing flood risk and supporting biodiversity. Farms also provide renewable power through Anaerobic Digestion (AD) plants, of which there are a number in Bucks. Slurry stores also support the management of the emissions that arise from livestock farming. In addition, the use of organic and net zero fertilisers enhance soil and its management which will improve long term carbon sequestration in soil.

Case Study 6: [Westcott Agri Living Lab](#)

The Westcott Agri Living Lab is a real-world testing environment that supports organisations to innovate, co-create, demonstrate, and deliver solutions that address global agri-food challenges. The Lab is initially focusing on satellite connectivity, autonomous farming, and sensor technologies. This is the first of a network of innovation centres to support the UK to become the global leader for space-enabled agriculture and supply chains.

Achieving net zero will require a considered approach to how land is managed to produce food, reduce impact on the climate and improve biodiversity. Farm businesses in Bucks need support to deliver on this agenda, as well as to deliver their key role as a producer of food. Two key areas were highlighted by stakeholders:

- **Policy clarity** – the Environmental Land Management Scheme (ELMS) offers ‘public money for public goods’ as a principle to underpin long-term post-Brexit farm support. While this is largely welcomed by stakeholders, it was questioned whether the policy might achieve its aims in practice when delivered. There is a need to ensure clarity for farmers and landowners about the structure of the policy and its constituent parts, and consistency in this over time. Furthermore, a review of ELMS needs to consider whether the scale and generosity of the Sustainable Farm Incentive (SFI), which is likely to be the main option for the majority of farmers and landowners, is sufficient to support take up.
- **Skills** – contrary to perceptions, farming is increasingly a sector which has a mix of skill sets, beyond the perceived lower-skilled labour for which it is known. From the technology involved in large parts of the prospects, to specialist ‘green’ skills needed to manage environments through animal husbandry, mechanical and digital technologies, a range of skills are required. There is a need to ensure that support for building these skills needs is integrated into broader skills policy.

Ultimately, policy needs to be delivered in a way that supports farming businesses to survive and thrive over the longer term, helping to manage the shift to a low carbon world.

Local and national barriers to growth

Policy clarity

Government approach to policy on net zero has seen significant change, with the establishment of the new Department for Energy Security and Net Zero now leading policy, and the Skidmore review highlighting the important economic gains attached to meeting our climate targets and developing green industries. These are crucial developments, as one of the key overall barriers to a green economy in Bucks that has been highlighted by multiple stakeholders is the lack of certainty around national policy in a number of key green sectors. Some key examples include:

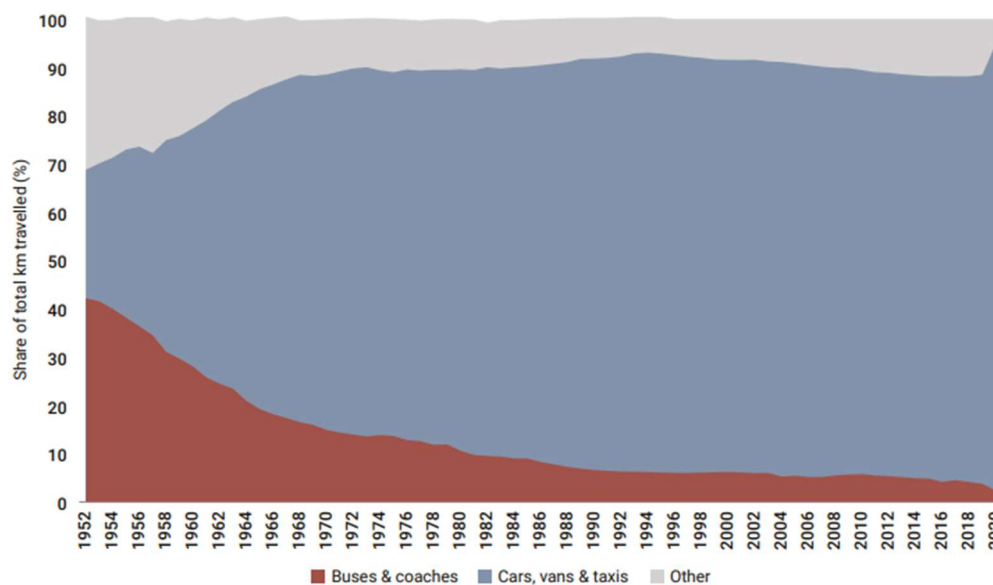
- **Retrofit and buildings decarbonisation** – the Heat and Buildings Strategy has not been followed up with a clear programme of policy to deliver the abatement targets within it, as highlighted by the Climate Change Committee in a letter to the Prime Minister.^v The result of this is that businesses will not invest in the staff, training, and equipment to undertake the retrofit necessary to decarbonise.
- **Agricultural decarbonisation and land use change** – while the Government showed initial ambition post-Brexit in relation to using farming policy to support ‘public money for public goods’, progress now feels uncertain. This could hamper local initiatives to support better land management for environmental outcomes.

Other stakeholders highlighted the strong clarity of policy in other spaces, such as the 2030 target for no new internal combustion engine vehicles, was important in encouraging investment and business activity in these sectors. Given that national policy in this area is rapidly evolving it is important that clear direction is given to businesses on where they can make the greatest impact and change the way that they operate in line with recognised national and international targets net zero. The BBF Growth Hub is an essential part of translating and simplifying the messages being given to business and in highlighting good practice where it is occurring.

Public transport links

Almost all stakeholders brought attention to poor public transport infrastructure as a major barrier to the growth of the green economy in Bucks. Stakeholders noted that the overwhelming majority of people who work in Bucks use cars to get to work rather than bicycle or bus and train services. While this is also reflective of a national picture (see chart below) it was highlighted as being a particular feature of Bucks

Figure 8: Proportion of miles travelled by mode, UK



Source: WPI Economics, based on Department for Transport (2021) Modal comparisons (TSGB01)

Furthermore, it was suggested that the high rate of car usage among Bucks’ workforce was borne more so out of necessity than choice as a result of the relative lack of cycling paths and infrequency of internal public transport links. Local reliance on cars as potentially the only viable mode of commute in Buckinghamshire presents significant challenges to employers, with prospective and new employees (especially those who are more junior) voicing concerns to stakeholders regarding the cost of using and maintaining a car. This financial burden is projected to only increase as the current cost of living crisis deepens. In this context, there is a risk that some workers will struggle to afford the upkeep of their car, and ultimately to live and work in Bucks. While the current cost of living crisis is primarily based on short-term pressures, the temporary shortage of labour that will likely result from it risks inhibiting the short to medium-term growth of the local green economy.

Further focus needs to be given to support the infrastructure for Electric Vehicles in Bucks. The Buckinghamshire EV Action Plan covers a range of measures, including an ambition to have more than 1,000 publicly-available charging spaces across the county by 2027. The publicly-available charging points need to be complemented by those available within private business premises and business parks, and so further action should be undertaken to help support the development of rapid EV charging infrastructure within Enterprise Zone and major business parks across the county.

The aim of the EV Action Plan is to help to reduce carbon emissions and improve air quality in Bucks as set out in Buckinghamshire Council’s Climate Change and Air Quality Strategy. The Action Plan will also support the Council’s commitment to achieve net zero carbon emissions for Bucks by 2050. Transportation currently contributes 51% of carbon emissions in Bucks, with 65% of these generated by cars.

In addition to the rollout of EVs, it is vital that Bucks develops and embarks upon an ambitious public transport infrastructure programme based around improved access to, and use of, sustainable Transport Hubs to encourage and keep new workers, to protect its economy against future economic shocks, as well as facilitate the building and growth of major employment clusters throughout Bucks. Examples of infrastructure schemes that could be used more widely across Bucks are: the Aylesbury

Gardenway project, an 18km shared path for pedestrians and cyclists between Berryfields; Buckingham Park developments in Aylesbury, which is a new sustainable transport route running north/south through the county broadly following the route of the HS2 train line; and, a demand responsive travel service connecting rural communities with main urban centres and employment hubs. Greater thought will need to be given to see how the emerging drone hub activities at Westcott could be developed to provide beyond the line-of-sight drone services to support local logistics operations.

National skills shortage

Although stakeholders were broadly positive about the existing skills pool in Bucks, many expressed concerns about the mid-to-long-term impact of a nation-wide shortage in the STEM skills required to further develop and sustain a thriving green economy. Of particular salience for stakeholders was the availability of skilled generalist engineers, computer programmers and other technical professionals. Other work commissioned by the now defunct Industrial Strategy Council has considered wider shortages in digital skills, as well as in general areas like management.^{vi} In addition, previous work by WPI Economics in London considered the fact that the skills necessary for the green economy of the future are very broad – they include both specialist skill sets such as heat pump engineers, but also the skills of white collar professionals, such as those in project management or marketing.^{vii} The Data City analysis also suggests a need for skill sets in relation to the Reduce, Reuse, Recycle, Repair sector, as this is overrepresented in Bucks in comparison to the UK average, as well as other similar areas across the greenbelt.

However, one of the main worries for stakeholders was not so much that skills demand will far outstrip supply, but rather that the majority of STEM graduates do not possess the type of skills and knowledge required in the local and wider green economy. The upshot, explained one stakeholder, is that businesses in the green economy are “gradually but increasingly spending more time and resources on up-skilling and re-training both technical graduates and non-graduate workers” in order to meet the specific skills demand of the green economy. Stakeholders acknowledged that this internal up-skilling approach provides significant long-term value in that businesses are able to nurture and develop the exact type of skills and knowledge that they require. Stakeholders also stressed that these types of internal training processes require considerable outlay such that should not generally be required for workers in graduate-level roles. As the demands of the local and national green economy increase, these green skills disparities will likely become more pronounced, which could put a major strain on growth and innovation. Stakeholders therefore emphasised the need for greater synergy between what is “taught in colleges and universities and what is required in industry”. In practice, this would require a significant increase in the number of graduates specialising in green pathways within STEM-related courses and beyond.

As a result, it is important that the further development of green skills is a core focus of the Local Skills Improvement Plan (LSIP) being developed by Buckinghamshire Business First, helping to provide access to funding and to enable local training providers prepare the workforce deliver new low carbon technologies. A good example of one such local training provider is [The Building Performance Hub](#) in High Wycombe, which is providing much needed commercial training for the construction industry in areas such as Thermal Imaging, Air Source Heat Pump Installation, Air Tightness Testing and the installation of Solar Panels and Photovoltaics.

Government and local funding

Levelling up, or other such policy programmes to address regional economic inequalities, will likely be a major long-term focus of government. As a result, there is an ongoing risk that Bucks' economy will continue to feature as a relatively low priority on the Government's green national investment agenda. However, given the multiple different financial channels and incentives provided by local and national organisations, as well as the presence of a growing number of private investors based in Bucks and its surrounding areas, there are other viable avenues of supporting growth in the Bucks green economy.

To some extent, this divergence between local and national levelling up priorities also underpins stakeholders' observations of a "growing disconnect between national government rhetoric on net zero and local government investment and infrastructure plans" would seem to reflect this wider difference in local and national priorities. 5G was a key example also raised in this context. As stakeholders pointed out, these types of modern infrastructure are of vital importance to the continued growth of an advanced green economy and plans for their development should, therefore, already be in place. In line with stakeholders' observations, the fact that they are not underscores the broader need for a more holistic and focused green economic strategy for Bucks; one that is coordinated by local partners but that is centred on the needs and priorities of local green businesses.

The lead taken by Buckinghamshire Council in setting deliverable net zero targets for the area as part of its Climate Change and Air Quality Strategy - which details how it is working towards making Buckinghamshire carbon neutral by 2050 – is vital, as is ensuring that concentrations of air pollutants are at safe levels and its £5m commitment to the Climate Challenge Fund. It is important that the local business community are aware of these opportunities and are given the opportunity to secure new business opportunities as part of the procurement processes linked to this strategy.

4. Bucks’ business’ transition to net zero

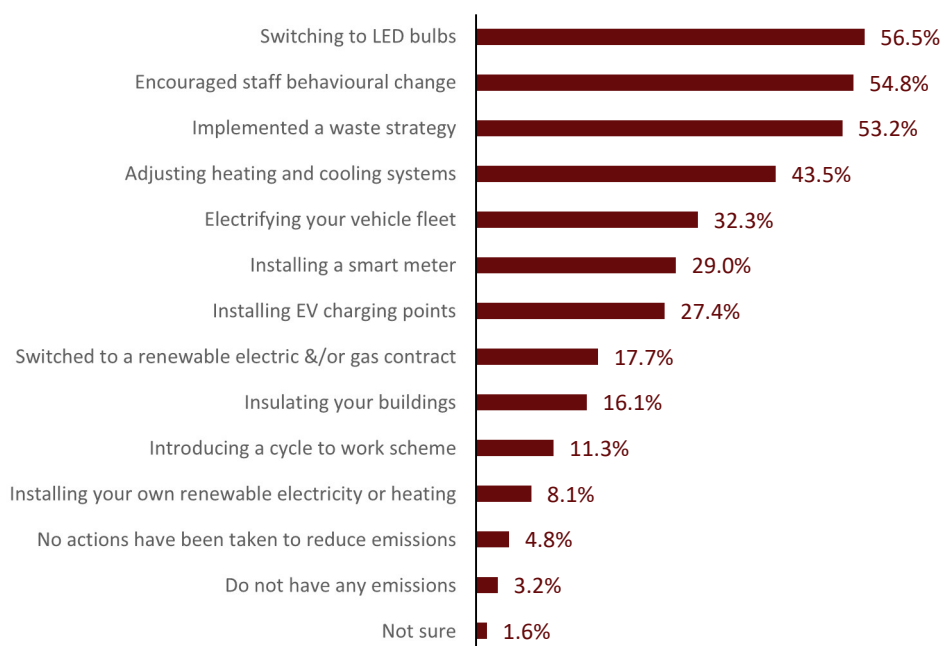
In addition to looking at specifically green businesses, another key element of decarbonisation in Bucks is the greening of businesses as a whole, whether they correspond to our green sector categories or not. To track business actions and intention to support the net zero transition in Bucks, WPI Economics worked with BBF and Bucks LEP to circulate a Bucks Barometer survey to a sample of businesses. The survey results can be partially benchmarked against the Business Insights and Impact on the UK Economy survey conducted by the Office for National Statistics (ONS)^{viii}.

It should be noted that the survey data we received from the Bucks Business Barometer – while interesting – is limited by its sample size and the nature of the response as being self-selected. This means we should take caution on drawing major conclusions from the sample. None-the-less, it raises some interesting points for consideration.

About 98% of our surveyed companies are micro to small businesses (with fewer than 50 employees) from various industries. Furthermore, as expected, the self-selected sample of firms are overall more enthusiastic about implementing green measures than those collected from the ONS survey. For instance, in the Bucks Barometer, most surveyed companies have adopted multiple actions to reduce carbon emissions, with 55% saying they have taken four or more actions.

However, they tend to adopt relatively simple ways to reduce their carbon emissions, such as switching to LED bulbs (56%), encouraging staff behavioural change (55%), or adjusting heating and cooling systems (43%). Few chose more complex yet energy-efficient actions, such as insulating buildings (16%), or installing their own renewable electricity or heating (8%). This finding is comparable to the ONS survey for South East England in terms of the most and least popular actions being taken.

Figure 9: Which of the following actions, if any, have you taken to reduce your business’s carbon emissions?



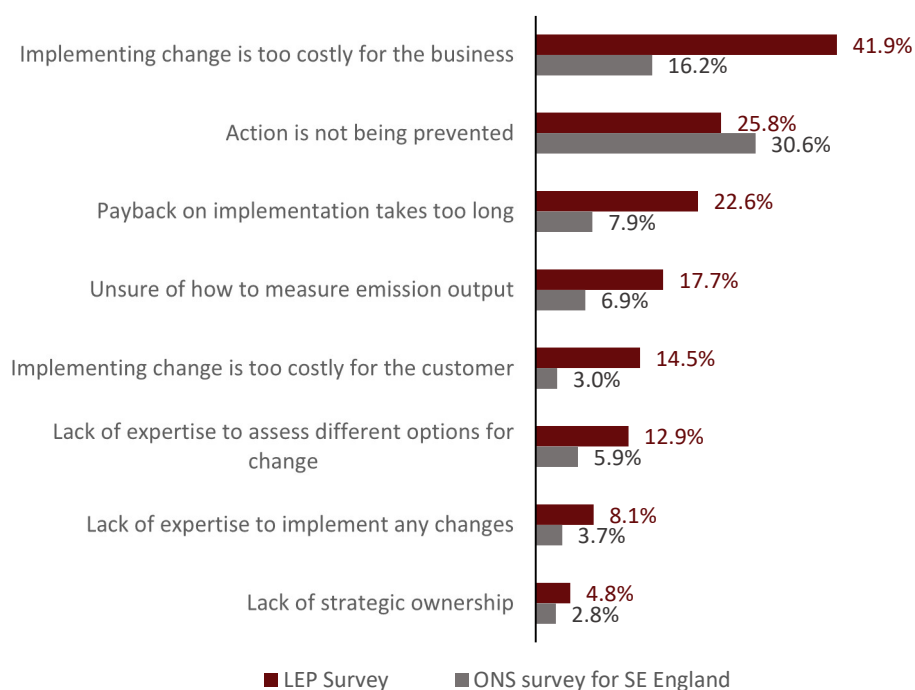
Although many have taken actions, only 24.2% made concrete pledges to limit warming to 1.5°C. 61% said they have neither registered nor made such a pledge. This indicates that much needs to be done to meet the Government’s target of small businesses to lead the way on climate action^{ix}.

It is interesting to observe that the most planned actions in the next 12 months are related to electrification of vehicles, such as installing EV charging points (31%), and electrifying their vehicles fleet (24%). Meanwhile, retrofitting their buildings remains the least popular choice.

While the barriers companies have when trying to reduce carbon emissions can be multi-faceted and company specific, financial barriers are the most cited challenge, with 42% saying implementing change is too costly for the business. Another 22.6% said that payback on implementation takes too long, while 14.5% think implementing change is too costly for the customers. Technical issues are another big challenge. 18% of respondents were not sure how to measure emissions output, while 20% said they lack expertise to assess different options for change or implement any changes. Only about a quarter of the surveyed companies suggested their decarbonation actions were not prevented by any barriers.

Companies need better access to financial and technical support to take a further leap in carbon reduction, something BBF is looking to address. This would potentially help firms to realise the cost reduction benefits of many green measures, including adoption of EV fleets or better insulation. Over half (56%) of the surveyed companies want to know more about the free support on offer from the BBF or from other sources to help kick-start or progress the journey to net zero.

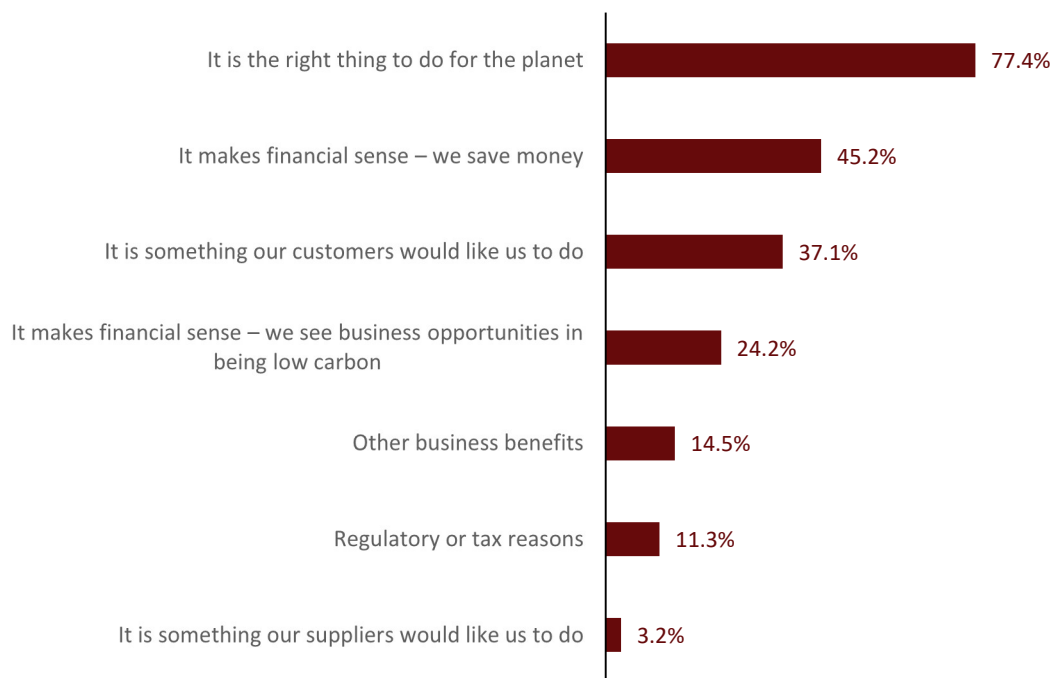
Figure 10: Do any of the following prevent action being taken by your business to reduce its carbon emissions?



Sources: Buckinghamshire LEP survey; Office for National Statistics – Business Insights and Conditions Survey, [Wave 41]

A sense of responsibility overrides financial incentives as the main driver for taking steps to decarbonise. Over three quarters of surveyed companies cited the right thing to do for the planet as their motivation, while 69% said it makes financial sense as they could save money, or because they saw business opportunities in being low carbon. On the other hand, only 11% cite regulatory or tax reasons.

Figure 11: What were/are your main reasons for taking these actions to reduce your business’ carbon emissions?



5. Realising the potential of the green economy in Bucks

As part of our stakeholder engagement, we were keen to identify key areas where Bucks can build on its key strengths and areas of opportunity to overcome its barriers to growth. Some of the key themes are summarised below:

Collaboration between business and academia

Stakeholders from across Bucks' green economy highlighted the prospect of "closer and more coordinated collaboration between industry and academia" as a major opportunity for stimulating further growth and greater innovation in existing R&D and technological specialisms. At present, collaboration between businesses and academics in Bucks is seen to be limited to informal and intermittent consultation, with businesses calling on academics for expert advice in the face of particularly complex innovation challenges. While stakeholders emphasised that this existing medium of collaboration is an important and effective recourse for green technological innovators, they also strongly believed that the "creation of more formal channels of collaboration" would enable businesses and academics to "pool their resources and knowledge", and in doing so collectively accelerate and enhance the research, development and commercialisation of green technologies in Bucks. This will also be a vital consideration for the development of the Bucks LSIP.

Support should be given to Bucks institutions developing proposals for the Knowledge Transfer Partnership, and for the Local Policy Innovation Partnership supported by UKRI to deliver innovative low carbon partnerships bringing business and academia together for collaboration.

Business to business collaboration

For similar reasons, stakeholders also emphasised the potential value of more open and coordinated collaboration between businesses within Bucks' green economy, as well as with businesses across the UK. At present, such collaborative business initiatives in Bucks are present but ad hoc, such as the collaborations between the Silverstone Technology Cluster and the Westcott Space Cluster. The exception is the Bucks net zero circle that was established by BBF in 2022, and needs promoting more widely across the Bucks business base. There is a comparatively low level of collaboration between members of respective clusters, and even less between members of these clusters and other businesses in Bucks. The relative lack of defined channels and opportunities for local and national collaboration was a particularly salient issue for stakeholders in the R&D and technology sectors, who pointed to the largely untapped scope and value of research collaboration as a powerful vehicle for accelerating innovation and thus the proliferation of green industry in Bucks. The Knowledge Transfer Partnerships play an important role in encouraging business to business collaboration, in addition to facilitating collaboration between business and academia.

Other significant clusters in Bucks identified through this report need to be investigated to see how they can be further supported and developed. Bucks LEP should ensure that it engages more closely with organisations such as Biffa and Urenco, which appear to be at the heart of local green economy clusters, to see how the local area can be used as a test-bed for their latest innovation, how their skills requirements can be met more effectively by the local community and how the local SME base may be able to support collaborative R&D initiatives.

Bringing all local businesses into the green economy

For all the success of its green R&D and technology sectors, Bucks' green economic potential will only be fully achieved when all local businesses are able to realise the benefits of greener practices, including adopting lower cost ways of doing business such as EV fleets and reducing heating costs in their premises. Far from this equitable, all-encompassing economic blueprint, the overwhelming view among stakeholders was that the green economy in Bucks is currently fragmented into three broad groups:

- **The Innovators:** The first, most active but yet the smallest, group consists of those green R&D and technological innovators, whose firm's business models are built to deliver green economic and social objectives, and who currently and will (likely) continue to be at the forefront of the green economy in Bucks.
- **The Adopters:** The second group consists of businesses who are in the process of transitioning or have already transitioned to a carbon-neutral business model. According to stakeholders, the green activities of this group of businesses are primarily motivated by the cost saving and profitability benefits of a sustainable business model.
- **The Laggards:** The third group, is comprised of mostly customer-facing businesses, who have yet to commit or begin to substantively transition toward a carbon-neutral model.

Within Bucks, The Data City suggests that there are 150 businesses which fit into our green economy categories. This is in contrast to around 65,000 across all sectors according to The Data City platform, with other data sources suggesting 31,500 VAT registered firms in Bucks.

Table 2: SME carbon personas

Category	Description	Implied proportion in SME population	Implied number in SME population
Carbon nimble	High transition maturity – but low emissions intensity	38%	2.3 million
Carbon complacent	Low transition maturity and low emissions	34%	2 million
Carbon correcting	High transition maturity and high emissions	9%	0.55 million
Carbon exposed	Low transition maturity and low emissions	18%	1.1 million

Source: British Business Bank^x

Bringing the third group of businesses identified by the qualitative research - which correspond to an extent to the British Business Banks's carbon complacent and carbon exposed groups (table 2) - into the green economy should be a priority for institutions and the wider business community in Bucks.

Stakeholders were in broad agreement that the most expedient and high-impact strategy would be to highlight the cost-saving benefits of a carbon-neutral business model. Finding ways of linking decarbonisation to the 'cost of doing business' crisis was identified as essential by stakeholders.

Environmental conviction of residents

A final, a largely untapped opportunity to strengthen the green economy in Bucks can be found in the perceived strong environmental awareness and convictions of its residents. Bucks' relative affluence and mainly rural setting was seen as contributing to this overall attitude. Many stakeholders highlighted the synergistic potential that lies between the environmental convictions of Bucks' residents⁴ and the environmental goals of Bucks' businesses.

Institutions and businesses in Bucks need to focus their efforts on increasing awareness within the local community of locally-led best practice in net zero innovation and highlighting how the shared environmental values can provide benefit to local residents as well as addressing the global new zero agenda.

⁴ <https://www.buckinghamshire.gov.uk/news/recycle-week-environmental-awareness/>

Recommendations to support green economy firms in Bucks

Working with Bucks LEP and its partners, we have identified a series of recommendations to fully realise the potential of the Bucks green economy, to the benefit of firms and residents across Bucks, as well as to make a significant contribution to the delivery of the UK's national climate policy goals.

Further engage the Bucks public on the green economy

Several stakeholders highlighted a (real or perceived) gulf between the business community in Bucks on the one hand, and the people who live there. Some see Bucks as a largely residential space for people to live while performing high skilled or paid jobs in nearby economies. As a result, there is a perception that residents do not prioritise local schemes to support innovation in the green economy – particularly if they involve commercial development, which may cause temporary disruption. This can be a cause for tension between residents and the local business community, which is often not constructive in nature. A range of stakeholders highlighted the potential dividends that could be realised if this relationship were put on a more collaborative footing, whereby the development of the green economy is prioritised *and* delivered in a way that is supportive of residents' priorities.

A prerequisite for this is to build greater understanding of the Bucks green economy among residents. To deliver this, there is a need for a local awareness raising programme for residents. This should utilise a range of tools and interventions to help highlight the role of local Bucks' businesses in helping to deliver the environmental goals that are held as important to the Bucks public. This could include:

- A guide for local residents, including charities, on the contribution of the Bucks green economy to key environmental missions such as decarbonising transport, and how this could also deliver local benefits, such as the improved air quality from fewer internal combustion engines.
- A series of open days on what local firms are doing to help deliver net zero and environmental goals, such as work to develop hydrogen and low carbon transport at Bosch.
- Social media campaigns to coincide with key events such as future COPs and Earth Day.
- Work, led by Bucks LEP and BBF, to scope out and highlight the tangible local benefits that could be achieved with a stronger local green economy, feeding this into communications with local residents.

The Local Authority has the mandate to lead on such an initiative, working closely with the Bucks LEP and the BBF to shape and deliver the various components, ensuring they have maximum impact with residents.

Continue to support a high innovation environment

The link between universities and growing firms has been highlighted as crucial in terms of delivering innovation and growth by a broad range of research.^{xi} The innovation generated by these collaborations also vital for helping the UK to deliver its net zero targets across a whole range of sectors.^{xii} For example, decarbonising aviation relies on both a scaling of existing technologies such as Sustainable Aviation Fuel, and continuing to test hydrogen and electric power for planes. Initiatives such as the Government Jet Zero review can play a role in delivering this, working with local areas such as Bucks, utilising funding streams such as the Shared Prosperity Fund.

International examples show the art of the possible here – innovation vouchers in the Netherlands leverage relatively small amounts of funding to support SMEs to fund research which then builds long term links between universities and firms, changing business strategy and behaviour. Furthermore, knowledge sharing and collaboration between larger firms and SMEs should be encouraged through tools such as Local Authority procurement in Bucks, with bigger firms being urged to support the adoption greener measures through their supply chain.^{xiii}

There are a number of discrete further actions to address specific strengths within the Bucks green economy that could be explored internationally. For example, there is a need to promote the Silverstone Technology Cluster as part of Inward Investment Campaigns. In addition, areas such as crop protection, where Bucks has strengths around satellite monitoring, point to the county as an area of low carbon innovation, which could be supported in partnership with the Department for International Trade (DIT).

Promote continued support for the BBF Growth Hub

One of the exceptional findings of this work – relative to our assessment of the green economy in other localities – was the perceived strength of BBF as a force in Bucks with reach across the area’s businesses. This was a consistent view across all stakeholders. Given the imperative role of SMEs in (a) delivering the transition across key sectors like transport and industry and (b) tackling their own emissions to progress the journey to net zero, this network is a significant and valuable asset to Bucks.

Given this, there was concern over long term support for BBF and some its key programmes, such as the Low Carbon Workspaces programme. This is particularly in light of government cutbacks to other programmes, such as subsidies to support household EV charging.

We therefore recommend that local Bucks institutions work with national government to ensure continued funding for key programmes such as the Low Carbon Workspaces programme through the transition from European Funding to the locally controlled Shared Prosperity Fund.

Bucks LEP and BBF should also aim to develop their relationship with the most significant green businesses identified within the Bucks net zero audit, assessed by turnover and employment levels, and identify the willingness of these businesses to contribute to a net zero advisory group to identify opportunities for improved collaboration with local companies, particularly SMEs.

Joining up skills and business in Bucks

As part of the development of the Local Skills Improvement Plan (LSIP) Buckinghamshire Business First have identified five priority sectors, these are:

- Construction
- Engineering
- Film and TV
- Health and Social Care
- Digital

Further to the priority sectors, a series of cross-cutting themes were identified, one of which was green skills. Green skills are crucial for these and other sectors. For example, depending on the government

policy direction in relation to heating and buildings, there will be a significant demand on green skill sets in the construction sector, e.g. for energy efficient retrofits of domestic properties. In addition, engineers will be needed to support adoption of green technologies in a range of sectors – a key one relevant to Bucks being low carbon transport.

In developing the LSIP, it will be crucial for stakeholders across Bucks to:

- Support training providers to spot market trends and to prepare the workforce of the future – e.g. motor mechanics being trained in EV maintenance, and heating engineers being aware of alternative fuel sources.
- Identify green skills champions to help identify informal and short course training and awareness and to highlight commercial benefits of transition to net zero in the home and at work.
- Ensure all Buckinghamshire-provided funding for skills development is used by Bucks based organisations.

Direct Investment in Green Infrastructure in Enterprise Zone and Key Business Park Sites

Finally, Bucks LEP should consider the development of an investment loan fund to enable individual businesses or site developers within the Enterprise Zone sites to invest in green energy sources and EV charging infrastructure. This will further support the development of these clusters, enabling the resilience of Bucks' most vital business infrastructure through the net zero transition.

Summary of recommendations

The table below summarises some of these actions, responsibility for taking this forward, as well as how these actions correspond to key steps identified by the Net Zero Review, led by Chris Skidmore.

Table 3: Summary of key recommendations

Objective	Proposed Actions	Lead / Support Agency	Relevance to Net Zero review
Promotion of key sectoral strengths of the Bucks net zero economy	<ul style="list-style-type: none"> • Publication of interactive map of green economy businesses • Development of PR collateral and blogs for leading Bucks net zero businesses • Continue Net Zero category at Bucks Business Awards • Work alongside local authorities and other stakeholders to support greater awareness of the Bucks green economy among Bucks residents 	BLEP/BBF	Need to capitalise on particular areas of clean technology specialisation in the UK, in order to realise the economic rewards.
Understand and support growth potential of net zero clusters	<ul style="list-style-type: none"> • Account management for key businesses identified within the net zero economy • Develop a peer network programme for business leaders within the clusters • Signpost available support for SME's and cluster development • Investigate the opportunity to develop net zero innovation hubs in Bucks 	BLEP/BBF	A need to focus on supporting already advanced net zero clusters to move more quickly, by providing strong support and certainty of demand
Improve use of net zero transport options within Bucks	<ul style="list-style-type: none"> • Development of accessible transport hubs in Aylesbury, High Wycombe and Chesham in support of Opportunity Bucks programme • Development of demand responsive transport hubs for 	Bucks Council	<p><i>“Action is needed to ensure that individuals can maximise the benefits net zero has to offer across the key areas that it interacts with them.”</i></p> <p>Transport is highlighted as a key example due to co-benefits around health and local environments.</p>

Objective	Proposed Actions	Lead / Support Agency	Relevance to Net Zero review
	<p>major employment hubs in Bucks</p> <ul style="list-style-type: none"> Continued development of sustainable transport routes including North/South cycle route alongside route of HS2 Further investigate the shift to home working patterns in Bucks, and identify how this can be supported 		
Support net zero innovation within the Rural Economy	<ul style="list-style-type: none"> Improve opportunities for collaboration across business, academic and specialist support networks Ensure net zero growth is included within Rural Development Fund Criteria Include Bucks within DIT High Potential Opportunity for Crop Protection 	Bucks council/ BBF/ BLEP	Greater recognition of the role of the natural ecosystem and ecosystem services to the environment and the economy.
Direct investment into net zero infrastructure at Enterprise Zone and key Business Park sites	<ul style="list-style-type: none"> Establishment of a net zero investment and loan fund for Enterprise Zone businesses Explore opportunities for energy capture and storage for local use from Enterprise Zone sites Support the futureproofing of digital infrastructure within Bucks to enable flexible working options 	BLEP	Overarching government financing Strategy needed by the end of 2023.
Develop support and investment package for net zero businesses	<ul style="list-style-type: none"> Explore options to extend Low Carbon Workspace Programme within Shared Prosperity Funding in Buckinghamshire 	BBF/BLEP	SMEs need to be active participants in net zero, supported by funding and regulatory clarity from policymakers.

Objective	Proposed Actions	Lead / Support Agency	Relevance to Net Zero review
	<ul style="list-style-type: none"> • Showcase innovative net zero businesses in Bucks to angel investment network • Investigate the establishment of an accelerator support programme for net zero businesses 		
Support development of net zero skills	<ul style="list-style-type: none"> • Ensure net zero skills is highlighted as a priority within the Bucks Local Skills Improvement Plan (LSIP) • Support Local Skills & Improvement Fund and Bootcamp Bids 		<p><i>“To ensure that future green jobs are created here, we must ensure that the UK has the right pipeline and mix of skills to deliver the transition.”</i></p>
Investigate opportunity to develop Net Zero Energy Storage Pilot Projects in Bucks	<ul style="list-style-type: none"> • Identify areas for additional energy generation within commercial locations / new communities • Ensure energy creation and storage considered within major site master-plan development • Explore funding opportunities through Greater South East Energy Hub Network 	Bucks/ BLEP/ Enterprise Zone site owners/ Greater South East Energy Hub	Potential to reduce cost of energy storage through boosting the scale of the sector by national policy, possibly through utilising a Contracts for Difference (CfDs) approach, as has been successful with renewable energy.

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- ⁱ <https://www.gov.uk/government/news/net-zero-review-uk-could-do-more-to-reap-economic-benefits-of-green-growth>
- ⁱⁱ https://www.localis.org.uk/wp-content/uploads/2022/11/050_MappingARoute_AWK.pdf
- ⁱⁱⁱ <https://www.theccc.org.uk/publication/2022-progress-report-to-parliament/>
- ^{iv} <https://relondon.gov.uk/wp-content/uploads/2021/03/LWARB-Business-Plan-FINAL.pdf>
- ^v <https://www.theccc.org.uk/publication/letter-homeowner-support-for-policies-to-decarbonise-uk-homes/>
- ^{vi} <https://industrialstrategy council.org/sites/default/files/UK%20Skills%20Mismatch%202030%20-%20Research%20Paper.pdf>
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