



Birmingham Economic Review 2019

Chapter 1: Adapting, Innovating and
Leading the Future

UNIVERSITY OF
BIRMINGHAM

BIRMINGHAM
BUSINESS
SCHOOL

CITY
REDI



West Midlands
Growth Company

Introduction

The annual Birmingham Economic Review is produced by the University of Birmingham's City-REDI and the Greater Birmingham Chambers of Commerce, with contributions from the West Midlands Growth Company. It is an in-depth exploration of the economy of England's second city and a high-quality resource for informing research, policy and investment decisions.

What follows is a summary version of the full Birmingham Economic Review 2019. The full-length publication can be found on the Greater Birmingham Chambers of Commerce website, or requested using the contact details at the end of this document. Data and commentary were correct at the time of publishing: October 2019.

Index

Foreword and Executive Summary: Scorecard for Birmingham

Chapter 1: Adapting, Innovating and Leading the Future

Chapter 2: Creating a Workforce Fit for Tomorrow

Chapter 3: Connecting Communities with Opportunities

Chapter 4: Making Inclusive Economic Growth Happen

Chapter 5: Changing Perceptions of Birmingham

Conclusion

All Chapters of the *Birmingham Economic Review 2019* can be found online on the [Greater Birmingham Chambers of Commerce website](#) or via the contact details at the end of this document.

Adapting, Innovating and Leading the Future

Birmingham's local networks, universities, business parks and an array of other initiatives are supporting local innovation, which is particularly strong in the digital, advanced manufacturing, energy, healthcare and creative sectors. There is also a drive within the business community to adapt and develop more environmentally sustainable practices. However, there is opportunity to boost adaptation and innovation in all sectors through better commercialization, more partnerships between universities and industry, and greater uptake of support such as R&D tax credits.

At the time of publication, the future of the national economy remains mired by Brexit-related uncertainty. Research suggests that Greater Birmingham businesses do not feel well prepared and through supply-chain exposure the regional economy is disproportionately at risk from negative trade-related consequences. The GBCC are working with the West Midlands Combined Authority (WMCA) and other local Chambers to encourage businesses to prepare for the country's departure from the European Union, while running a concurrent business adaptability and resilience campaign, Raise the BAR, aiming to challenge & inform employers about approaches to managing risk and being agile and responsive to change.

Adapting to the challenge of Brexit

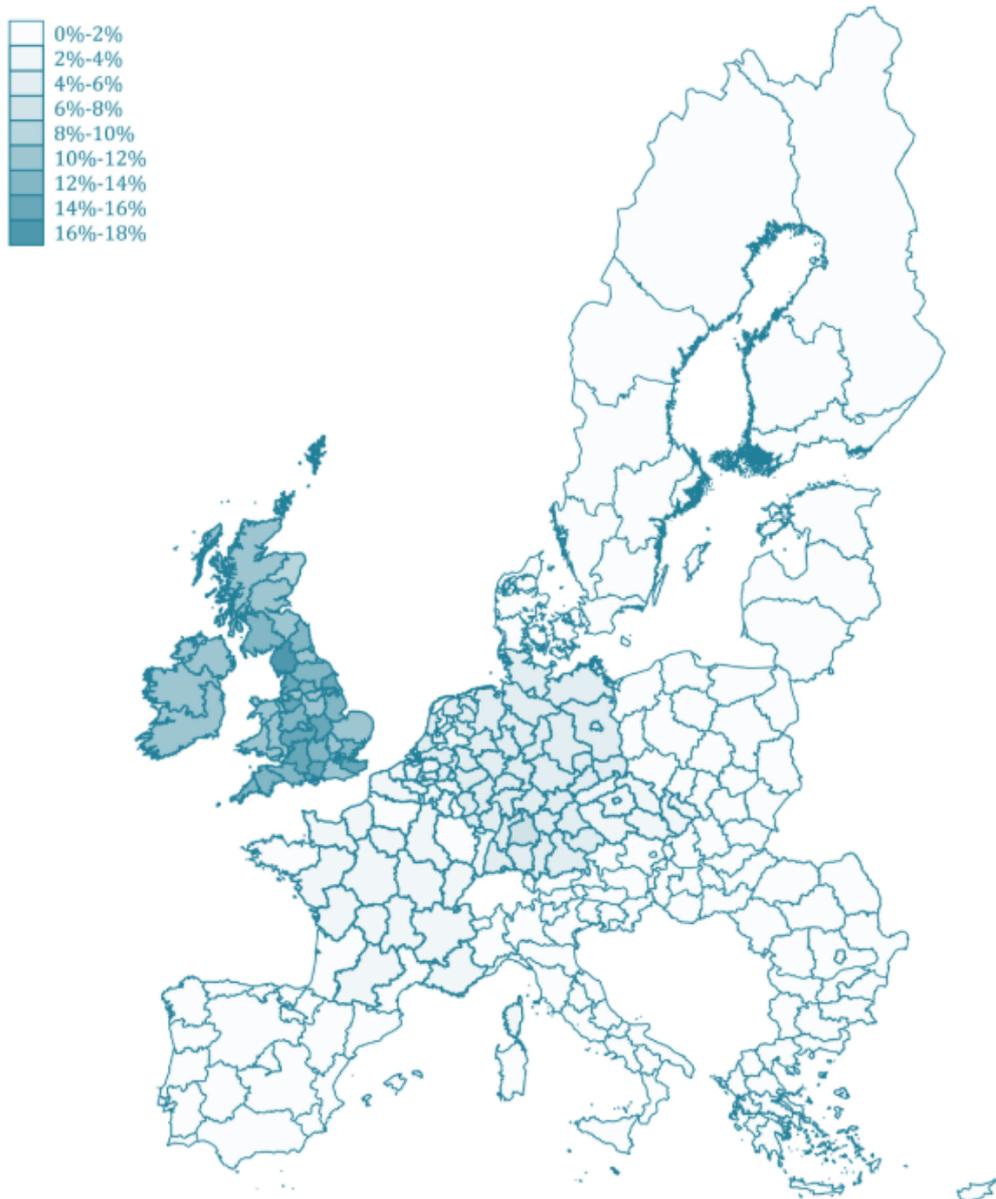
Among the most significant challenges facing businesses in the region is how to prepare for Brexit, especially when it is not yet clear what form Brexit will actually take. Professor Raquel Ortega-Argilés at City-REDI has researched what the exposure of the West Midlands is to European supply chains and the potential impact of a no-deal Brexit on the region's economy¹. 12.2% of West Midlands GDP is at risk because of negative trade-related consequences; in the wider region, the exposure of Shropshire and Staffordshire is 13.9% of local GDP and the exposure of Herefordshire, Worcestershire and Warwickshire is 14.3%. By contrast, only 2.64% of EU GDP is at risk due to a no-deal Brexit, highlighting that the shock will be far greater on the UK than on other member states of the European Union.

Moreover, in Professor Ortega-Argilés analysis of which sectors are most exposed to a no-deal Brexit, 32.3% of the GDP of the manufacturing sector is at risk owing to its dependence on frictionless trade and just-in-time supply chains. Disruptions to logistics and distribution networks will have a huge impact on manufacturing, but other sectors also demonstrate a high degree of exposure. For example, 25.5% of GDP in the primary industries (extraction such as mining, agriculture and forestry) and 12.2% of GDP in the services sector would also be at risk in the event of the UK leaving without a deal on 31 October 2019.

The map below demonstrates the percentage of regional GDP that is at risk from a no-deal Brexit across the whole of the European Union. Planning for no-deal and adapting to changes to the UK's international trading relationships poses a unique challenge to businesses – especially when the form of those relationships remains as yet unknown.

¹ <https://blog.bham.ac.uk/cityredi/the-exposure-of-the-west-midlands-region-to-brexit/>

Figure 1: Regional shares of local GDP exposed to Brexit.



Source: *The Implications of Brexit for the UK's Regions*, Raquel Ortega-Argiles²

Planning for no-deal and adapting to changes to the UK's international trading relationships poses a unique challenge to businesses. The WMCA and the region's Chambers of Commerce have developed a free digital tool - the *Business Brexit Health Check* - to help businesses navigate Brexit.

Analysis of 339 Business Brexit Health Check responses (28th May-31st August 2019) indicated that Brexit "preparedness" varies significantly by organisation size: micro businesses are the least likely to have undertaken proactive steps to prepare for Brexit and large organisations the most. All firms were most likely to be impacted through their people (pension arrangements, professional qualifications, business trips and EU nationals in their workforce) and trading relationships (buying from or selling goods to other parts of the EU). On average,

² <https://blog.bham.ac.uk/cityredi/the-implications-of-brexit-for-the-uks-regions/>

manufacturers scored higher on the Brexit Readiness Index, indicating that they believe they have undertaken slightly more in-depth preparations for Brexit than services sector firms. However, manufacturers scored between a 3.3 and 2.3 out of a possible 5 on this same Index indicating that, on average, they do not feel “significantly” well prepared for Brexit.

Businesses are concerned about:

- The scale of Brexit - Brexit touches almost every possible aspect of doing business: people, trade, data, IP, tax, regulation & standards
- Understanding the indirect effects of Brexit (e.g. on supply chain and key customers) is difficult with many companies considering such information commercially sensitive (if they have it at all)
- Growing uncertainty on the Brexit timeline leading to uncertainty about when to activate contingency plans
- A lack of specific answers to specific questions

Above all else, businesses need detailed answers on what Brexit will bring in order to be able to plan and prepare accordingly. For further analysis of Brexit preparedness, and case studies on the impact of Brexit on local businesses the full *Brexit: How Are Businesses Responding?* report is available on the GBCC website³.

³ <https://www.greaterbirminghamchambers.com/brexit-support/brexit-facts-and-stats/>

Expert Comment

Professor Raquel Ortega-Argiles, City REDI, University of Birmingham



Over the last two and half years an international research team led by City-REDI and involving the University of Sheffield, the University of Groningen in the Netherlands and the PBL Dutch Environmental Assessment Agency has undertaken the most detailed work to date regarding the city, regional and rural implications of Brexit. Most of the economic narratives and debates surrounding Brexit are framed at a national level with comparisons made between the UK as a whole and the EU as a whole, as reflected the bilateral nature of the UK-EU negotiations.

However, the complex nature of modern trade means that ‘national’ implications may differ substantially from local implications, depending on the industrial and commercial structure of the local economy. The fact that the implications of Brexit may be markedly different for different places is important because recent years have also seen a growing awareness in the UK that the opportunities and difficulties associated with modern globalisation are unevenly distributed across the country. Indeed, some commentators have argued that this is one of the reasons for the specific geography of the Brexit vote in which many ‘left-behind’ places voted Leave. These potentially very different post-Brexit implications also raise the question as to how localities may best respond to their specific challenges and the policy levers that they have available to them. Understanding these issues requires the construction and analysis of very large datasets which take account of the fact that the UK is part of deeply-embedded pan-EU value-chains which involve large amounts of re-importing and re-exporting. These complex value-chains mean that simple export-minus-import trade balance figures quoted by politicians are largely meaningless. In addition, in order to understand the local policy implications and responses, our work involves engagement with very large numbers of key stakeholders.

The evidence produced and published by the City-REDI led team has five key elements to it:

- (i) The UK regions which most strongly voted Leave tend to be the same regions which are the most dependent on EU markets for their economic viability and prosperity, and as such, are likely to face the most adverse shocks (Chen et al 2018).
- (ii) UK regions are far more exposed to Brexit-related risks than regions anywhere else in Europe, except for those in the Republic of Ireland whose exposure is equivalent to the least exposed UK regions, namely London and parts of Northern Scotland (Chen et al 2018).
- (iii) UK localities are very poorly prepared for Brexit, not only because they have few policy levers to pull, but also because they are almost entirely excluded from any negotiations. Those preparations which are underway tend to be ad hoc, uncoordinated and very limited (Billing et al. 2019).

(iv) The sectors and occupations which are most at risk from Brexit tend to be the most productive activities in both services and manufacturing (Los et al 2017).

These four observations imply that Brexit is likely to increase (the already high) UK inter-regional inequalities, while at the same time increasing the serious productivity problems faced by the UK as whole.

If we examine these issues in the specific context of the West-Midlands region, we see that the Brexit-related exposure of the (NUTS2) West Midlands region as a whole amounts to 12.2% of the West Midlands Gross Domestic Product (GDP) and 11.3% of the West Midlands local labour income (Chen et al 2018). For the broad sectors in the West Midlands the levels of Brexit-related exposure calculated in terms of local GDP are 25.5% for Primary Industries, 32.3% for Manufacturing, 4.0% for Construction and 8.9% for Services. In terms of local labour income, the respective figures are 25.5% for Primary Industries, 32.7% for Manufacturing, 4.0% for Construction and 7.3% for Services (Chen et al. 2018).

The most recent research just produced by the City-REDI team also examines the implications of Brexit on the competitiveness of UK and EU regions and sectors (Thissen et al. 2019). The analysis is based on a complex calculation incorporating all of the value-chain issues discussed above, along with detailed knowledge of the actual spatial arenas in which the various industries of different regions do actually compete. This analysis demonstrates again that the adverse competitiveness implications of Brexit are far more severe for UK regions than for regions in the rest of the EU. In addition, the new key finding from our most recent research is that:

(v) Brexit is likely to exacerbate intra-regional inequalities as well as inter-regional inequalities, with the larger agglomerations being less adversely impacted than the smaller towns and rural areas in the same region.

Again, if we examine the specific case of the West Midlands we see that competitiveness of the automotive industries is very severely hit. The loss of competitiveness of the West Midlands automotive industries accounts for 5.5% of total revenues, a figure which is sufficient to wipe out the profits of many of the local industry's firms (Thissen et al. 2019). The loss of competitiveness of the many of the West Midlands other manufacturing industries are also of a similar in size, although the key difference is that the loss of competitiveness in the West Midlands automotive industries is largely insensitive to the actual form of the final UK-EU post-Brexit trading arrangements. As such, withdrawing from Single Market and Customs Union has a severe loss of competitiveness effect of the industry, largely irrespective of whatever deal is finally negotiated.

Billing, C., McCann, P., and Ortega-Argilés, R., 2019, "Interregional Inequalities and UK Sub-National Governance Responses to Brexit", 2019, *Regional Studies*, 53.5, 741-760

Chen, W., Los, B., McCann, P., Ortega-Argilés, R., Thissen, M. and van Oort, F., 2018, "The Continental Divide? Economic Exposure to Brexit in Regions and Countries on Both Sides of the Channel", 2018, *Papers in Regional Science*, 97.1, 25-54

Los, B., Chen, W., McCann, P., and Ortega-Argilés, R., "An Assessment of Brexit Risks for 54 Industries: Most Services Industries are also Exposed", 2017, City-REDI Policy Briefing Series, December, See: https://blog.bham.ac.uk/cityredi/wp-content/uploads/sites/15/2018/01/City-REDI-Briefing-Template_Sectoral-Analysis.pdf

Thissen, M., van Oort, F., McCann, P., Ortega-Argilés, R., and Husby, T., 2019, "The Implications of Brexit for UK and EU Regional Competitiveness", Tinbergen Institute Discussion Paper 2019-061/VIII, See: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3440574

Innovation

Innovation can be defined as the ‘commercialisation of new ideas’. The UK has historically been very good at creating new ideas, but not great at commercialisation. We are still something of a nation of inventors rather than innovators. This is important. Firms that are more innovative are also more competitive and adaptable in the face of external threats and opportunities. They tend to export more (a result of their competitiveness and a factor behind their resilience) and they employ higher-skilled, more productive and higher-paid employees and therefore produce larger positive multiplier effects for their host regions. So, more innovation benefits not just firms but employees and the regions that attract them and support their development.

How Innovative are the Firms in our Region?

Ideas, people, infrastructure and the business environment combine to create the innovative potential of places. Firms rely on their regional innovation systems, including a good skills base, science and technology infrastructure and strong university-based R&D, in order to innovate. The Birmingham city-region has a number of regional strengths, but how innovative are the firms based in the region?

According to the national UK Innovation Survey (2017), innovation in the West Midlands is above the national average, coming fourth out of 9 English regions and ahead of all three of the devolved nations, with over half of our firms seen as ‘innovation active’⁴. We also have a healthy regional share of jobs in ‘science and technology’ sectors, compared to other UK regions. This amounts to around 360,000 employees in total, or about 1/5 of all jobs⁵. A number of outstanding science, technology and engineering clusters are part of the reason for this, including:

- Edgbaston for life sciences
- Gaydon, Warwickshire for automotive technologies and home to JLR and Aston Martin; the region accounts for almost 10% of UK manufacturing and a significant proportion of automotive exports
- South Coventry for advanced materials and automotive engineering
- Warwick and Leamington Spa for computer games software

Universities are central to many of these technology clusters, including: the University of Birmingham’s Institute of Translational Medicine and the High Temperature Research Centre, with Rolls Royce as partners, at the Manufacturing Technology Centre in Ansty; the University of Warwick’s Advanced Propulsion Centre Hub and Warwick Manufacturing Group (HVM Catapult); the Institute for Advanced Manufacturing and Engineering (IAME), a collaboration between Coventry University and Unipart Manufacturing Group and the National Transport Design Centre (NTDC), based at Coventry University. Universities produce both

⁴ UK Innovation Survey (2017) <https://www.gov.uk/government/statistics/uk-innovation-survey-2017-headline-findings>

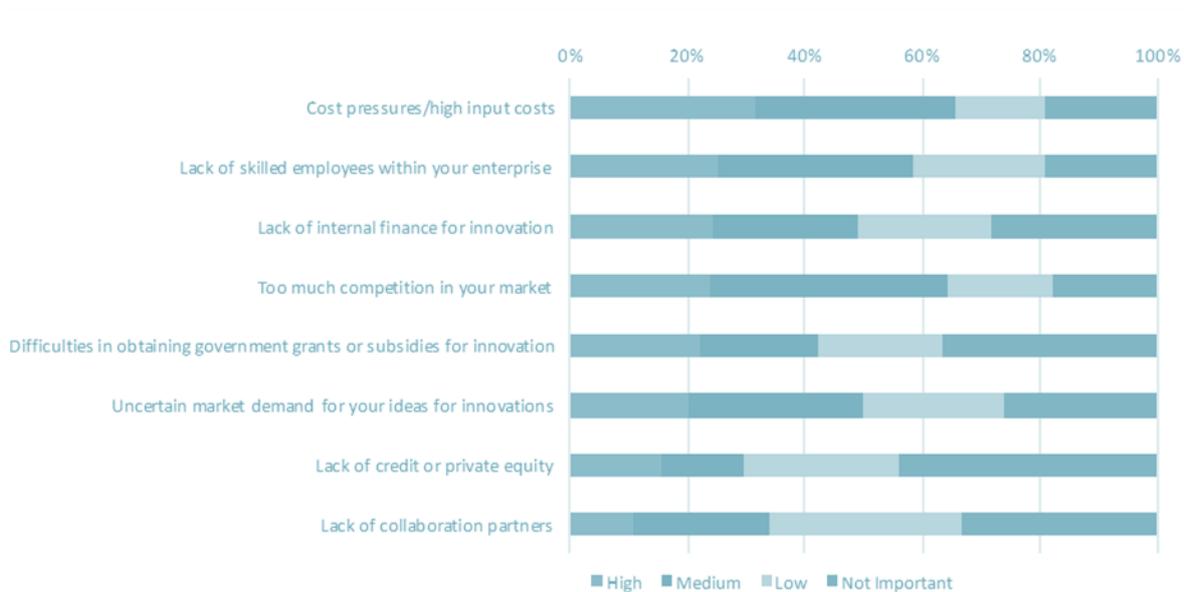
⁵ WMCA (2017) Science and Innovation Audit for the West Midlands. <https://www.wmca.org.uk/media/1682/west-midlands-sia-final-for-publication-21617.pdf>

new ideas and specialist expertise in the form of graduates and we have seen a growing number of these staying in the region to work after graduating⁶.

Local Barriers to Innovation

But firms in the region report a range of barriers to innovation, limiting their ability to improve products and services or the way these are produced and sold. This undermines firm-level competitiveness, but also reduces the positive effects that innovation has on the region’s economy. City-REDI and the Greater Birmingham Chambers of Commerce worked in partnership to extend the Quarterly Business Report (QBR) regional survey of firms to better-understand these location barriers to innovation. Over 200 firms responded and by comparing these responses with the findings of the national UK Innovation Survey (2017) we can gain some insights into how our region differs from the UK average. Figure 2 shows a ranking of manager’s list of barriers to innovation taken from this local survey.

Figure 1 Barriers to Innovation in the Birmingham City-Region



Source: City-REDI and Greater Birmingham Chambers of Commerce; analysis of 2018 QBR Survey Responses.

Birmingham firms rate ‘cost factors’ as the most pressing constraint, as do UK firms generally. But ‘competition in the market’ comes second and ‘lack of skilled employees’ ranks third amongst Birmingham respondents. These factors are rated lower by UK firms generally, with skills ranked 5th as a national constraint on innovation, matching other research showing that skills gaps are a key problem for the region⁷. Conversely, Birmingham firms rank ‘lack of finance’ as a lesser barrier to innovation and ‘uncertain market demand’ much higher than the average for UK firms overall.

⁶ See: Greater Birmingham Chambers of Commerce ‘Invest to Grow’ blog: Simon Collinson (2018) ‘The Birmingham City-Region Needs Investment to Drive Innovation’

⁷ Deniz Sevinc (2018) Mind the Gap! Qualification Shortages in the West Midlands, City-REDI blog (03/7/2018). <https://blog.bham.ac.uk/cityredi/mind-the-gap-qualification-shortages-in-the-west-midlands/>

Both product and process innovation influence firm-level productivity and some of these factors, notably skills shortages, also undermine productivity levels in the region. The UK lags behind other advanced nations but productivity levels our region are about 89% of the national average.

It is also significant that regional firms rank 'uncertain market demand' much higher than the average for UK firms overall. Across the country there has been a marked decline in investment in R&D, technology and training, partly due to the above barriers and partly due to growing uncertainty regarding market conditions and the Brexit process. This is one of a number of indicators that suggest this lack of confidence to invest is more prevalent in our region than nationally, despite the relatively higher availability of finance.

In order to incentivise innovation in both the public and private sector, it is crucial that Birmingham's R&D and educational infrastructure creates a supportive environment. This infrastructure includes: (i) technology & artificial intelligence; (ii) universities; (iii) business parks; and (iv) enterprise zones. It is also important that local businesses take advantage of the national R&D tax relief that is offered by central government to support innovative companies working in science and technology.

Technology & Artificial Intelligence

The emergence of advanced technologies and artificial intelligence is creating opportunities in the city for employment, growth and investment. According to Tech City UK, a publically and privately funded body to accelerate the growth of digital businesses across the UK, in 2017 Birmingham had a total of 17,581 jobs in digital tech and digital tech businesses in the region had a turnover of £2.2 billion⁸. The industry in the city is also notable for its diversity, with 26% of digital tech workers in Birmingham being black, Asian or minority ethnic compared to a 15% UK average.

This growing digital technology ecosystem has been supported by the planned HS2 rail link and the recent arrival of big banks (e.g. HSBC) and professional services firms. Funding support for local businesses is provided through Finance Birmingham, which offers flexible funding packages between £250,000 and £2 million for digital start-ups. Local networks, including Innovation Birmingham and Silicon Canal, are also influential in the sector's strength. Innovation Birmingham, part of Birmingham Science Park Aston, supports start-ups and growing digital and technology companies in the city. Silicon Canal is a not-for-profit organisation with the aim of creating a world-class technology ecosystem in Birmingham.

In September 2018, Birmingham hosted an A.I. Camp delivered by Kainos, a leading provider of digital services and platforms for public and private organisations around the globe. This offered ten undergraduate students the opportunity to hear about the latest industry developments from local leaders in artificial intelligence, as well as the chance to improve their business skills and develop their own machine learning models.

In October 2019, Birmingham Tech Week – a new grassroots initiative driven by business – took place, featuring a collaborative series of events across

⁸ Tech City UK 2018. <https://technation.io/insights/report-2018/birmingham/>

Birmingham and the wider Greater Birmingham Region, highlighting Birmingham's burgeoning tech scene and focussing on a number of innovative topics. Many institutions and organisations co-ordinated and participated in events specifically to take advantage of TechWeek. The Greater Birmingham Chambers of Commerce were involved in two events in Birmingham Tech Week 2019, on 'Breaking into Health Tech' and funding innovation. The latter took place at the Natwest ESpark accelerator.

5G and autonomous vehicles

The West Midlands has been chosen as the UK's first multi-city testbed for new 5G technology ahead of a nation-wide rollout⁹. The pilot, in Birmingham, Coventry and Wolverhampton has received £75 million of investment from the Department for Digital, Culture, Media and Sport as well as local authorities. This is a fantastic opportunity for the region with the potential to boost productivity and grow the local economy.

The trials in the region will focus on how 5G can be used in the health, construction and automotive sectors in order to drive economic growth and benefit the population through new digital technologies and public services. One significant application of this seamless connectivity will be in the testing of autonomous, driverless vehicles. To this end, the West Midlands Combined Authority has partnered with Jaguar Land Rover to deliver a "smart city mobility centre" combining autonomous and electric vehicle research, supported by £1 billion of private-sector R&D funding to Warwick University's Warwick Manufacturing Group. This is the largest private investment ever into UK automotive R&D.

Universities

Universities are critical sites for innovations, they educate prospective workers and produce technological and scientific results that can be turned into patents and products. The city's three largest universities (University of Birmingham, Aston University and Birmingham City University) are actively engaged in research and knowledge transfer at a regional, national and international scale.

These three universities have a range of internationally recognised strengths in the fields of:

- Advanced Material characterisation and use - including nanotechnology and composites
- Energy - including Hydrogen and fuel cells, bioenergy
- Low Carbon Technologies - including low carbon vehicles
- Innovative Healthcare - ranging from medical devices to clinical trials
- Digital Technologies - including the use of social media and 3-D imaging

The University of Birmingham is part of the Russell Group of leading UK universities and is ranked among the top 100 universities globally. The UK University League Table 2019 placed the University of Birmingham 15 out of 131 Universities for overall ranking, including factors such as research quality and intensity, entry standards and student satisfaction.

⁹ <https://blog.bham.ac.uk/cityredi/could-5g-technology-power-economic-growth-in-the-west-midlands/>

The city's three largest universities also offer specialised innovation services and collaborations with industry in the city. For instance, the University of Birmingham is home to Alta Innovations. Alta Innovations works with academics and industry to bridge the gap between research and commercial application. They work with academics to protect their inventions and make sure that world-class technologies and innovations developed at the University of Birmingham can have the widest possible benefit.

Similarly, Birmingham City University offers Innovate for Advantage, which aims to support businesses to improve their performance by helping them to develop new products and services and to streamline processes. It taps into a range of expertise such as design, engineering, digital technology, e-business, social enterprise, business process improvement, marketing, web design and green technologies.

University College Birmingham also has excellent links with industry, particularly in the food sector. Aston University has received a Business School's Business Charter Gold Award and has a number of initiatives in place, such as the Aston Centre for Growth.

Business Parks

Birmingham has a number of high tech business parks that are helping to foster innovative practices and high tech industry. These business parks provide crucial opportunities for businesses and key stakeholders to network, broadening their potential resource base and maximising their opportunities. This is particularly valuable for smaller, younger and thus more vulnerable firms.

Birmingham's business parks and related initiatives include:

- **Innovation Birmingham Campus at Birmingham Science Park Aston** - an increasingly high-tech and young-entrepreneur focused science park in the centre of Birmingham. Innovation Birmingham Campus, previously owned by Birmingham City Council, is now part of Bruntwood SciTech - a network of innovation districts dedicated to providing space for science and technology businesses. To date Innovation Birmingham Campus has incubated over 170 start-ups, supported a community of over 1,000 digital technologists and innovators and raised more than £56 million in start-up funding.
- **Birmingham Research Park at the University of Birmingham** - a number of spin-outs from the city's universities have started on these sites, with many still located there.
- **Longbridge Technology Park and Innovation Centre** - situated on the former MG Rover site, this is a key link in the Central Technology Belt (CTB), the high technology corridor running along the A38 from the centre of Birmingham southwest to QinetiQ in Malvern, Worcestershire. Other developments along the CTB include the Queen Elizabeth hospital which is a leading centre for healthcare R&D with a key role to play in the development of the city's life sciences sector.
- **Birmingham Science City** - Birmingham was awarded Science City status by the Chancellor of the Exchequer in 2005, in recognition of the city's strong

science-based assets. The Birmingham Science City partnership provides a means to collaborate amongst the research community, private and public sectors, leading to the commercialisation of research strengths.

- **Institute of Translational Medicine** - Birmingham Health Partners led the development of a new Institute of Translational Medicine (ITM), a new world-class clinical research facility in Birmingham, opened in 2015. The centre will help progress the very latest scientific research findings from the University of Birmingham into enhanced treatments for patients across a range of major health issues including cancer and liver disease. The Institute will build on Birmingham's excellent track record in clinical trials by increasing capacity and enabling more patients to be co-located alongside clinicians and researchers. It will also make it easier for both SME and large pharma and biotechnology firms to work more closely with clinicians and academics, bringing additional investment into the city.
- **Birmingham's Smart City Commission** - the Commission has representatives from academia, business, health, transport, education, utilities and local government. It was established in 2012 to drive the long-term vision and strategic leadership that will lay the foundations for Birmingham's future. It shapes technological solutions and partnerships to deliver a joined-up approach to deal with the immediate and future challenges the City faces around:
 - Sustainable economic growth
 - Connectivity and infrastructure
 - Climate change and the green agenda
 - Digital inclusion and skills

The NEC

The NEC is also a crucial infrastructure resource supporting innovation in Birmingham. Based just outside of Birmingham and opened by HM the Queen in 1976, the NEC now has 19 exhibition halls, 34 conference suites and a host of additional outdoor spaces. These spaces receive over six million guests and 500 events every year, including a host of local, national and international, sector-specific conferences and exhibitions focussed around industry innovations. Examples include: UK Construction Week; Advanced Engineering 2019; Fleet Live; and The Contamination Expo Series.

Birmingham Design Festival

Initiatives such as Birmingham Design Festival also inspire and foster innovation in Birmingham's design industry, while showcasing of the creative talent in the region. Birmingham design festival debuted in 2018 with talks, workshops, screenings and exhibitions over a four day programme which welcomed thousands of visitors and dozens of speakers from across the globe, showcasing 30 venues and celebrating everything the design industry has to offer. Following another successful year in 2019 the annual festival is expected to return in the summer of 2020.

Birmingham City Centre Enterprise Zone

Birmingham City Centre Enterprise Zone is comprised of 39 sites across the City, in seven clusters at Westside, Snow Hill District, Eastside, Southern Gateway, Digbeth Creative Quarter, Birmingham Science Park Aston and the Jewellery

Quarter. The Enterprise Zone is one of the major projects for the GBSLEP, with the potential to create 40,000 new jobs, add £2 billion a year to the economy and make available 1.3 million square metres of floor space over the lifetime of the project. The Enterprise Zone (EZ) is focused on the following economic sectors: Business and Financial Services, ICT, Creative Industries and Digital Media.

A simplified planning regime has been introduced across the whole of the EZ in addition to Local Development Orders (LDO) being used in Digbeth and Birmingham Science Park Aston, which remove the need to apply for planning permission for a wide range of changes of use, making it easier for growing small businesses to be mobile. The EZ provides superfast broadband focused on the clusters of IT, creative and digital businesses in Digbeth, Eastside, the Jewellery Quarter, Southern Gateway and St George and St Chad Quarter.

Over its 25-year lifetime, the retained uplift in business rates will enable investment in a range of infrastructure, business support, employment and skills and access to finance projects to support its priorities.

Uptake of R&D Tax Credits

R&D tax credits is a national scheme that supports companies working on innovative projects in science and technology. Recent analysis has found that companies in the West Midlands are under-claiming via this scheme, with much more scope for future uptake.

Jumpstart, a leading UK R&D tax relief firm, reports that HMRC figures for the fiscal year end in 2016 indicate that businesses in the West Midlands made up just 8% of total claims (2,165 claims out of 26,255 nationally). This suggests that businesses are missing out on tax savings in comparison to companies in other parts of the UK. PwC found similar results, with their recent analysis showing that innovative firms in the West Midlands are potentially missing out on more than £60 million a year in unclaimed tax breaks¹⁰.

¹⁰ <https://www.greaterbirminghamchambers.com/latest-news/news/2017/10/13/midlands-innovators-missing-out-on-60m-in-tax-breaks/>

Expert Comment

Dr Chloe Billing, City REDI, University of Birmingham



Research funding awarded to local universities acts as a catalyst for other investments in city-regions and a positive driver for regional economic development. Studies show a clear relationship between regions with good universities, where on-campus innovation activities align with local competitive advantages, and economic growth (in terms of GVA and start-ups). This is supported by recent City-REDI research, which examined the experiences of Local Enterprise Partnerships (LEPs) and their partners in securing funding. The research found that the presence of research-intensive universities

in Birmingham is a central factor in the success of the Greater Birmingham and Solihull LEP and its ability to attract funding awards. The GBSLEP has received significant levels of funding from Horizon2020 (53,590,192 euros for 2014-2018) and research Council/Innovate UK (£997,002,402 for 2012-2021).

When we account for the unequal LEP geographies, by standardising funding data per head of population in each LEP, we find that the GBSLEP sits in the top ten LEP areas outside of London, in terms of its success at winning both European and UK research funding. The Midlands Engine receives the highest level of InnovateUK Funding awards, reflecting its strong history of manufacturing. Having strong research universities is critical to this success because they tend to be awarded to the strongest consortia of university research groups and R&D-focused businesses in key technology areas. But high levels of science, technology and engineering skills, strong regional partnership networks and coherent local industrial policies are also all important factors. Moreover, we have seen noticeable recent improvements across all of these components in the West Midlands region.

The funding supports research teams and infrastructure to underpin the generation, use, application and exploitation of knowledge. Universities also provide skilled graduates as an important capacity-building input into the region's innovation ecosystems with associated impacts on regional productivity. There is also the transformative knowledge that both graduates and the University departments offer to the LEPs, local authority, Chambers of Commerce, trade and professional bodies, other public services, as well as businesses.

But there is much more to be done. In order to build on the strengths of universities more broadly, there is a demand for better partnerships to be built between our universities and local businesses. This would help to address the long-term, systemic problem of the UK university-industry gap, in the translation of research into commercial products. It is also timely, given the UK government's recent proposal for the development of a Knowledge Exchange Framework (KEF) to compare how effective universities are at fostering knowledge sharing and the commercialisation of research. Studies have found that bridging this university-industry gap requires confronting the differences in institutional logics and priorities between the business and higher education worlds. For example, academics are motivated by a number of competing incentives and performance indicators (including their civic role, teaching responsibilities and REF) that

compete with commercialisation activities. At City-REDI, we are looking at ways of addressing this issue by identifying the different forms of commercialisation pathways at Universities and developing a framework to help academics to better understand the process and the potential impact of their technologies.

Industry Insight

Ian Noble, senior director, global chocolate production, platforms and global growth, Mondelez International



Mondelez International is one of the world's largest snacks companies and produces many much-loved brands such as Oreo, Cadbury Dairy Milk, Belvita, Green and Blacks, Toblerone, Milka, Maynards Bassets, Trebor and Ritz. We manufacture biscuits, chocolate, gum and candy products, which are sold in 150 countries around the world. In the UK we employ 4,000 people and have a rich heritage dating back to 1824 when Cadbury was founded in Birmingham.

Over the last seven years we have invested £200 million in our UK business. This includes £75 million into new machinery at our Bournville factory securing the next generation of manufacturing at this iconic site. We have also grown our Research, Development and Quality (RDQ) facilities during that period and we are now one of the largest food research groups in the UK. We're enormously proud that Bournville is at the heart of our global business.

Every Cadbury product, no matter where in the world it is sold, starts out life in the Bournville Global Centre of Excellence for Chocolate Research. Home to over 260 scientists, engineers, nutritionists and chocolate experts, the centre works with other Mondelez technical hubs across the globe sharing knowledge and expertise to drive innovation across new and existing products for the UK and over 150 other countries.

The recent launch of Cadbury Dairy Milk 30% less sugar was only made possible by our team of over 20 Mondelez International Bournville-based scientists, who took three years to perfect this most significant innovation in Cadbury's history. Staying true to the iconic taste of Cadbury Dairy Milk has taken time and persistence by our team of experts, who focused heavily on delivering that instantly recognisable flavour and experience we all know and love.

The bar, now launched in India, the UK and Ireland, has no artificial sweeteners. We recognise that consumers want to manage their sugar intake. These new products are just one element of our ongoing strategy to increase choice across our portfolio and support people to enjoy treats, such as chocolate, in moderation as part of a balanced lifestyle.

From Birmingham to Australia, the Bournville RDQ team's expertise is renowned and sought out across the business. In July this year a team of Bournville Scientists and Engineers partnered with our Australian Cadbury business to launch the world's very first Cadbury Dairy Milk chocolate 3D printer. This unique printer made the trip to the other side of the world for its debut in Melbourne for World Chocolate Day on the 5th July. The machine was programmed to print all 26 letters of the alphabet as well as eight Australian themed, intricate finely printed chocolate designs, which cool instantly, ready to eat. Cadbury fans could choose from letters, shapes and iconic Australian symbols like kangaroos and even maps of Australia.

Industry leading innovation is impossible without a continual pipeline of talent. At Mondelēz International we're ensuring the future of our innovation at Bournville by partnering with key target schools and universities, starting right here at home with the University of Birmingham. We utilise multiple pathways into our business, including internships, apprenticeships and graduate schemes to build the critical skills and the talent pool required for the future. These initiatives also enable us to bring in fresh perspective to challenge our existing approaches and techniques.

Our apprenticeship offering allows us to attract future talent who opt for both education and industry experience. The scheme has now progressed from a two-year programme (A Level) into a four-year full degree. We ensure that our apprentices are committed to 20% off-the-job learning, which can be linked to R&D project work.

For Mondelēz International, apprenticeships are our source of talent from initial entry roles through to mid-entry and beyond. For apprentices, it is a unique chance to study towards a degree in the world's largest snacking business, without incurring any debt and building their industrial experience as they study.

At Bournville RDQ our internships are our largest investment in early careers, they are embedded across all our teams with strong return, progression and retention rates. The intern programme is a 12-month placement for students or graduates in RDQ, forming a source of talent for higher entry levels. For students it provides valuable work experience in a relevant industry to their degree.

At Mondelēz our people grow every day, they are given the freedom to master areas of expertise and have their passions supported by the business. The retention of great people and the investment in attracting new fantastic talent for the future drives our innovation capabilities forward, ensuring Bournville's Global Centre of Chocolate Excellence is leading the future.

Industry Insight

Saira Demmer, CEO, SF Recruitment



Here at SF Recruitment, the Midlands' Leading Specialist Recruiter and proud patrons of the West Midlands and East Midlands Chambers of Commerce - we believe in the Midlands.

The region has been our home for over 20 years and has helped us to grow at a pace averaging 39% over the last six years. This is something we are very proud of as it reflects the talent and skills that exist within the region.

To keep pace with this growth, we felt our company's profile needed raising and revitalising to ensure we stayed relevant into the future. A future that will follow the direction we think the City of Birmingham is heading in, as it continues to explore and exploit its full potential.

The city is developing at a rate that even it's residents can't keep up with. Birmingham is perfectly located to benefit most from the government's drive to bring opportunity and growth to the Midlands and the North. From the Prince's Trust launching its new Skills Hub last year in Digbeth, to the 240,000 sq ft Arena Central development which will house over 3,600 civil servants from multiple departments by 2020, Birmingham is well on its way to becoming a major city hub.

Once the first section of HS2 has been completed, the city will boast 40-50 minute journey times to London - the same time it takes to cross from East to West of the capital on the tube. We will be as accessible as a suburb of London, but with a more affordable and inclusive cost of living.

This unique dynamic is one of the reasons big businesses like HSBC, PWC and Metro Bank have all announced new jobs and offices in Birmingham and why the West Midlands has had the fastest growing employment rate in the UK since the referendum in 2016.

So how could we at SF keep up with this? We spend our days helping people to make major career decisions, matching them to jobs they love and to businesses they will adore because they align with their values and style of working. To do this for our own people we needed to stand for something. Something that would have a lasting impact. Something that would take us on a journey and connect us with the world outside. Something that would give us purpose over and above that which we find in the day job.

With a network of over 12,000 local businesses, 40,000 candidates and 120 specialist consultants, we are privileged to have a platform for conversation that we can use to make a positive difference to one of the most pressing issues of our time.

As a relatively green-minded business (and with a helpfully green-coloured logo), we made the pledge to ditch all single use plastics, turning instead to a more

sustainable material – bamboo. An easy thing to say and a harder thing to do, we knew we had to live and breathe this pledge in order for it to become real. We rebranded to feature bamboo at the centre of our company story. We updated our values to reflect the strong, flexible and ethical nature of bamboo. Our leadership team ditched their love of sparkling water bottles and we discontinued thousands of items of plastic corporate gifting in favour of bamboo paper, pens, bottles, cups, gift boxes and even socks!

Our people are filling up the recycling bins daily, we have reinstated the milkman who brings us recyclable glass bottles and are planning a clean up of our waterways to reduce harmful plastics that may have found their way in. This is an industry first in the recruitment sector and we enjoy talking to our clients and candidates about our efforts. Many of them are decision makers in their own businesses and will inspire and influence their own networks to be more aware of the environmental dangers of single use plastics.

There are growing numbers of organisations in the West Midlands who have recognised the need for sustainability and seen it as a catalyst for innovation and change. The London Taxi Company with their new breed of electric hackney carriages. The University of Birmingham's pioneering research into plastic pollution. The clean air zone which is planned for Birmingham city centre will be one of the first of its kind. The pioneering industry for driverless cars which is currently centred around the West Midlands. To name but a few.

Could all of this innovation, plus our status as the youngest city in Europe and the hosts of the 2022 commonwealth games, be a chance for Birmingham to finally have its 'truth'? A chance for us to position as the fittest, most athletic, healthiest city? A chance to put the question of 'brand Birmingham' to bed once and for all? With one simple, powerful focus.

The sustainable city.

For queries related to the Birmingham Economic Review 2019 please contact:

Emily Stubbs

Policy and Patron Advisor
Greater Birmingham Chambers of Commerce
E.Stubbs@birmingham-chamber.com

Rebecca Riley

Business Development Director
City-REDI, University of Birmingham
R.L.Riley@bham.ac.uk

Greater Birmingham Chambers of Commerce

75 Harborne Road
Edgbaston
Birmingham
B15 3DH
t 0121 274 3262
e policy@birmingham-chamber.com
w greaterbirminghamchambers.com