

DIGEST

A TIME OF CHANGE AND OPPORTUNITY

ISSUE 7: JULY 2024

CONTENTS

- 3. Foreword Neil Rami, Chief Executive, West Midlands Growth Company (WMGC)
- 4. Economic Review Andy Phillips, WMGC's Head of Research and Professor Delma Dwight, Director of The Economic Intelligence Unit
- 6. Advanced manufacturing FDI
- 8. A new electrification Inward Investment Strategy
- 10. Advanced manufacturing sector roundtable
- 12. How the region's universities are keeping the advanced manufacturing sector at the cutting edge of innovation
- 15. Energy resilient facilities
- 20. Achieving long term, sustainable growth in tourism
- 24. Spotlight on Dudley
- 26. UKREiiF unlocking investment opportunities in the West Midlands



FOREWORD

We publish this issue of our Quarterly Economic Digest at a time of great change and opportunity. We have a new government, the West Midlands has a new mayor and the region's economy is showing encouraging signs of recovery. In this issue we focus on some of the key drivers of growth in our region:

- Andy Phillips, West Midlands Growth Company (WMGC) Head of Research, and Professor Delma Dwight, Director of the Economic Intelligence Unit look at the latest economic data for the West Midlands.
- Advanced manufacturing has long been a powerhouse sector for the West Midlands:

Adam Titchen, WMGC's Sector Lead for Advanced Manufacturing, reviews the region's recent record in FDI and argues that the government's new Investment Zone Programme can help the West Midlands retain its competitive edge.

As well as harnessing the benefits of the new Investment Zone Programme, WMGC and its partners are looking to make the most of the opportunity presented by electrification technologies to attract more inward investment. Andrew Toolan, WMGC's Strategic Adviser for Inward Investment, highlights the key features of the region's new electrification inward investment strategy.

Lucy Blackman, PR and Communications Manager at WMGC, highlights some of the key challenges and opportunities discussed by a range of the sector's key players at a recent roundtable event.

Wayne Langford, Director of West Midlands Combined Universities, provides some fascinating examples of how the region's universities are helping keep the advanced manufacturing sector at the cutting edge of innovation.

Juliet Mian, Global Resilience Skills Leader and Richard Pearce, UKIMEA Electrical Skills Leader, share ARUP's approach to advising its advanced manufacturing clients towards a holistic and long-term approach to energy resilience. • The tourism sector has been a key driver of the region's post-Covid recovery:

Becky Frall, WMGC's Head of Tourism, Shannon Chu, WMGC's Senior Research and Evaluation Manager and Alicia Winfield O'Hare, Sustainability and Research Senior Executive, review recent volume and value data and consider how initiatives to respond to growing demand for sustainable visitor options and the introduction of a visitor pass to offer a seamless booking experience will help drive more footfall into the region.

Paul Mountford, Dudley MBC's Head of Economy and Skills, turns the spotlight on key investments in Dudley's tourism offer.

•

Attracting new investment in the region's real estate and infrastructure is critical to underpin its economic recovery. Andrew Dunbar, WMGC's Head of Capital Attraction sets out how the West Midlands consortium at UKREiiF in May has sought to promote key investment opportunities and link local authorities with key private sector investors, developers and advisors.

I hope you find the Digest an interesting and informative read.

We would be keen to hear your feedback.



Neil Rami, Chief Executive, West Midlands Growth Company

ECONOMIC REVIEW THE WEST MIDLANDS REMAINS RESILIENT IN A CHALLENGING UK ENVIRONMENT

Andy Phillips, WMGC's Head of Research and Professor **Delma Dwight**, Director of The Economic Intelligence Unit, review the latest economic data.

The UK economy - strong Q1 growth banishes fears of recession - but long term challenges remain

The UK economy appears to be heading back to more normal ranges for most key economic indicators with forecasts pointing to further growth and headline inflation expected to come down to the 2% target rate in the summer.

Encouragingly UK GDP grew by 0.6% in the first guarter of 2024 which was the joint highest guarter-on-guarter growth in all G7 countries - banishing concerns about a possible recession after falls of 0.1% in guarter three 3 and 0.3% in guarter four of 2023. Inflation fell to 2.3% in April and both business and consumer confidence is improving.

That said long term economic challenges remain. The UK's post-pandemic economic performance has been one of the weakest in the G7 and high levels of debt limit the government's ability to spark a significant recovery. More up-to-date analysis, meanwhile, indicates that there was no GDP growth in April and that growth in the second guarter of the year may be more modest.

A resilient regional economy

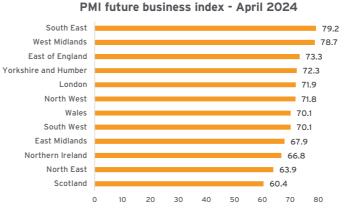
The ONS have now released economic data at a lowerlevel geography, and this shows a continual economic recovery following the Covid-19 pandemic. In the West Midlands Mayoral Combined Authority area (MCA) total GVA (CVM, 2019 money) increased by £2.7 billion (more than 4%) over the 2021-22 period. However, while this matches the UK growth rate, many other MCA areas have grown faster. Productivity in terms of GVA per head, meanwhile, increased by more than 3% to just over £23,300 - although this still lags significantly behind the UK average of just over £29,990.

And latest data indicates that the West Midlands is one of the strongest performers in the country

The region has had an upbeat start to the second guarter of 2024. Data from the NatWest PMI survey shows a monthly increase in the West Midlands business activity index from 52.8 in March to 55.5 in April 2024. This was also the strongest growth in economic activity since the first quarter of 2022 - as market demand rebounded and the climate for exporters improved. The region achieved the second strongest growth in the UK, with only London's economy growing faster.

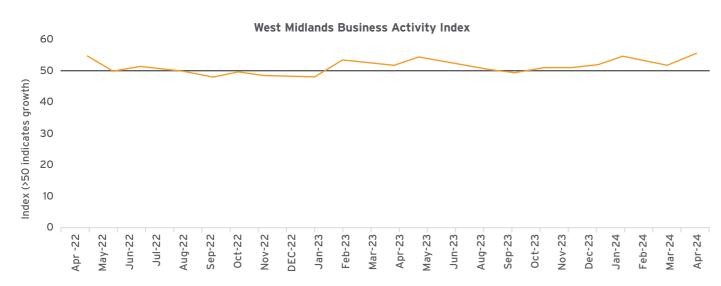


Looking forward meanwhile West Midlands businesses were the second most optimistic in the country behind the South East (78.7 and 79.2 respectively), buoyed by new product launches and marketing campaigns, a resurgent construction sector and the prospect of a good summer for the tourism sector.



Source: Natwest West Midlands PMI

This is further corroborated by other business surveys. The Q1 2024 Institute of Chartered Accountants in England and Wales Business Confidence Monitor indicates that business confidence in the West Midlands remains above both the national average and the region's historical norm as the recovery in domestic and export demand continues. The Q1 2024 Greater Birmingham Chambers of Commerce Quarterly Business Report, meanwhile, points to a strong upturn in both domestic and export orders.



"Despite competition for skills, increased wage costs and high interest rates continuing to ramp up pressure on businesses and act as a drag on investment and growth, key economic indicators suggest the UK economy is returning to normal ranges and inflation is expected to drop to the 2% target rate in the summer.

West Midlands businesses have remained resilient, and the PMI business activity index has stayed at or above the 50 growth mark for fifteen consecutive months. In the nine of the last twelve months, the West Midlands was the most optimistic region for future business activity and the latest data shows that 64% of West Midlands businesses are forecasting output growth in the upcoming twelve months."

Professor Delma Dwight Director of The Economic Intelligence Unit

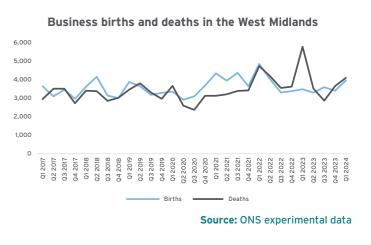
Source: Natwest West Midlands PMI

THE WEST MIDLANDS - A TIME OF OPPORTUNITY

And encouraging trends in business start-up and survival rates

Experimental business births and deaths data from

the ONS for Q1 2024 indicates a year-on-year growth in births of 13.5% - more than double the figure for the UK as a whole (6.1%). The number of business deaths in the WMCA area in Q1 2024 was 29.1% lower than the same period of 2023 - which compares with a decline of 17.2% across the UK as a whole.



ADVANCED MANUFACTURING FDI HOW THE INVESTMENT ZONE PROGRAMME CAN HELP THE WEST MIDLANDS RETAIN ITS COMPETITIVE EDGE

Advanced manufacturing has long been a powerhouse sector for the West Midlands and a key driver of foreign direct investment (FDI) into the region. Adam Titchen, WMGC's Sector Lead for Advanced Manufacturing, reviews the region's recent record in FDI and gives his view on future prospects.

The UK picture

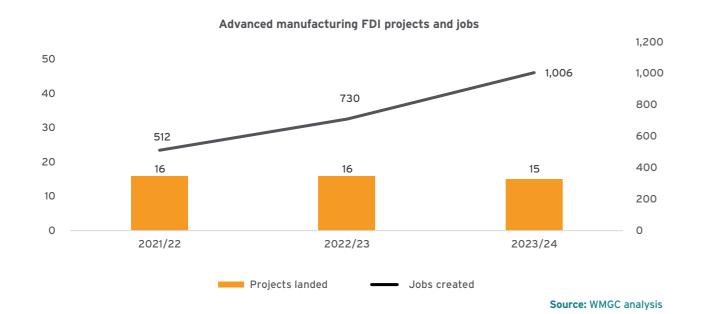
A series of global crises have hindered recovery in UK FDI, with project volumes still below pre-pandemic levels. High inflation and interest rates have led to a high cost of capital and a risk averse market. However, while the UK market as a whole has grown relatively slowly, regions outside London have seen much stronger growth as (i) regions have worked pro-actively to promote their offer and (ii) investors have been willing to look elsewhere in the UK.

The West Midlands has led the way

The West Midlands has led the way with a record year for projects and jobs in 2022-23, followed by another strong performance in 2023-24. EY's UK Attractiveness Survey confirms that, despite a decline across the UK as a whole, the West Midlands attracted some 127 FDI projects in 2023 - a 71% increase from 2022. This is the highest figure in a decade and at 12.9% is the region's highest UK market share on record.

The role of advanced manufacturing

While sectors such as tech & creative and life sciences have been key drivers of growth in the West Midlands, advanced manufacturing has remained a steady source of projects. And as recovery from the pandemic has gathered pace, there has been a healthy upturn in the volume of jobs created by projects - up by 43% from 512 in 2021-22 to 730 in 2022-23 and up by a further 38% to 1,006 in 2023-24.



The competitive environment

That said, the region is facing intense competition in the global marketplace. Foreign investment in advanced manufacturing is a highly competitive landscape and regions are having to do more and more to compete on the world stage. For example, other parts of the world are offering attractive incentives to internationally mobile advanced manufacturing firms:

- In the USA the Inflation Reduction Act offers substantive incentives to businesses establishing manufacturing facilities in the areas of green technology. Indeed, Goldman Sachs estimated in an April 2023 report that the \$1.2 trillion in federal incentives could encourage up to \$3 trillion in private investment over the next decade.
- <u>Canada</u> has responded with similar subsidies (e.g. a \$3bn state subsidy and up to \$4.4bn from the federal govt to Swedish battery maker Northvolt) and Europe's Green Deal offers another generous set of incentives.

However, while these interventions seek to accelerate the pace of investment in climate-saving technologies at scale, they also risk a 'race to the bottom' where governments are played off against each other in a 'subsidy beauty parade'.

In contrast the West Midlands tends to compete on quality rather than cost, focusing on the region's key USPs. That said, however, early signs are that the Investment Zone Programme, the UK Government's new initiative to offer tax reliefs to potential investors, is already having a very positive impact on the region's investment pipeline.

The West Midlands Investment Zone

The Investment Zone will cover the whole West Midlands but will be powered through three specific sites:

- Coventry-Warwick Gigapark anchored by a new battery gigafactory and associated businesses and technologies
- Birmingham Knowledge Quarter running northeast from Aston University through Duddeston and Nechells to Aston
- Wolverhampton Green Innovation Corridor creating new green industries and skills through a partnership between the city council and university.





"The Investment Zone programme is a very timely and very helpful additional tool in the West Midlands' armory.

Not only can we offer the UK's strongest manufacturing skills and supply base, plus the benefits of being located at the centre of the country, with some of the best university and R&D brains in Europe, we now have access to incentives across the Investment Zone which can make a genuine difference to the business case for investing here."

Adam Titchen, Sector Lead for Advanced Manufacturing, West Midlands Growth Company

A NEW ELECTRIFICATION INWARD INVESTMENT STRATEGY

As well as harnessing the benefits of the new Investment Zone Programme, WMGC and its partners have developed a strategy to make the most of the opportunity presented by electrification technologies to proactively target key OEMs, suppliers and technology companies in advanced manufacturing. Andrew Toolan, WMGC's Strategic Adviser for Inward Investment, highlights the key features of the region's new electrification inward investment strategy.

The purpose of the strategy is to create a more joined-up approach across the region in our efforts to attract high-value projects and support new job creation. The strategy acts as a single go-to-market plan for all stakeholders and partners interested in the opportunities surrounding inward investment.

A range of regional stakeholders and partners contributed to the strategy's development - including:

- The WMCA and a number of Local Authorities across the region.
- Subject matter experts from companies such as KPMG, ARUP and Horiba Mira.
- Academic institutions and research organisations like Warwick Manufacturing Group, University of Birmingham and the Advanced Propulsion Centre.

A pro-active, evidence-based approach was required to develop the understanding of the region's competitive positioning, current industry trends and future areas of focus.

The scale of the opportunity

Electrification will play a key role in achieving net zero goals and the transition to electric vehicles (EVs) - and represents the single largest economic opportunity for the region:

- The <u>IEA Global EV Outlook 2024</u> reveals that the global market share of EVs jumped from 0.2% in 2014 to 14% in 2022.
- <u>Goldman Sachs</u> predict by 2035, EVs will account for 50% of all global car sales.
- Battery power demand is expected to grow eleven-fold by 2035, from 2020 levels.

The region's competitive positioning and recommendations for future areas of focus

The West Midlands, which has a deep automotive legacy and is home to the UK's future mobility industry, has a very strong platform on which to grow this opportunity. 'Manufacturing of Electrical Light Vehicles and Associated Battery Storage Devices' was one of the nine clusters identified in the West Midlands Plan for Growth and the strategy focuses on subsectors with the strongest investment and growth potential:

- Battery manufacturing. The West Midlands has leading strengths in battery science, R&D and testing. The rich R&D ecosystem is well positioned to attract innovative battery manufacturers, which would be supported by anchor institutes like the UK Battery Industrialisation Centre and University of Warwick. Greenpower Park is a major opportunity for the region and the attraction of a high value, lower volume battery manufacturer with an 'open strategy' (not linked to a specific manufacturer) would best complement its offer - providing the flexibility to work with a range of high-performance automotive companies and other segments and sectors e.g taxis, aerospace, marine, buses and static energy storage.
- Recycling. There is potential to attract firms involved in battery re-manufacturing (battery diagnostic, repair and replacement); battery re-purposing and battery re-using, which would support automotive sector diversification and strengthen the region's economic resilience.
- Vehicle Innovation is in the West Midlands DNA. The deep research and innovation ecosystem has placed the region on the map for EV innovation, with investors such as JLR, Polestar, Lotus and Horiba Mira being strong examples of the region's credentials. The West Midlands can attract R&D centres from OEMs to support their goals to improve vehicle design and performance.



- **Propulsion Systems.** The region has strong capabilities in power electronics, motors and e-drives. Key assets include WMG, with extensive capabilities supporting companies with R&D and testing needs, and companies such as JLR and Polestar who undertake their own R&D and design locally. The region's proximity to the F1 triangle and high-performance cars cluster, and the substantive pool of talent and knowledge here, mean that there is significant potential to attract (i) companies specialising in high-performance electric motors for extended range and power looking to co-develop new propulsion systems and (ii) high-growth SMEs from across the UK looking to establish new manufacturing facilities.
- Autonomous vehicles. There are opportunities to attract software and R&D functions within companies working on autonomy applications. While there are still regulatory hurdles to overcome in the UK, the nearer term opportunities will include applications in controlled, commercial environments such as shipping ports, airports, rail, farming, mining and warehouses.
- The **micromobility** market also has regulatory challenges in the short-medium term but there will be opportunities for the region around attracting R&D functions from manufacturers and deployment for new trials.



ADVANCED MANUFACTURING SECTOR ROUNDTABLE SUPPLY CHAIN RISKS, DIGITAL SOLUTIONS AND WIDER SOCIETAL IMPACT

On the evening of Tuesday 14th May, DLA Piper hosted a roundtable, with support from PwC and West Midlands Growth Company (WMGC). The event brought together decision-makers from across the region's advanced manufacturing sector to discuss the key threats facing their supply networks, the potential represented by digital transformation and the growing importance of ESG on the industrial agenda. Lucy Blackman, WMGC's PR and Communications Manager, picks out some of the headlines.

From key component shortages and Brexit-related disruption to labour disputes and geopolitical turmoil, global manufacturers have faced a perfect storm of challenges in recent years. While developments in digital transformation can help the sector to mitigate such risks and strengthen their supply chain resilience, it's vital that businesses plan carefully to avoid introducing a new set of problems. At the same time, a lack of clear ESG parameters from industry is making it challenging for companies to effectively manage their supply chain governance and make a difference when it comes to their environmental and social impact.

Supply chain risk

Carl Perrin, CEO at the Institute for Clean Growth & Future Mobility, kicked off the conversation around supply chain risk by emphasising the need for the West Midlands manufacturing sector to learn lessons from the past in order to improve their resilience.

"Major events like the 2011 Fukushima nuclear disaster provided a powerful reminder of the need to take supply chain risk seriously and make mitigation strategies part of our business-as-usual activity. While companies don't have a crystal ball, we can predict that major threats will occur at some point, just not exactly what they are or when they'll happen."

Carl Perrin, CEO at the Institute for Clean Growth & Future Mobility

He also touched on the potential of fast-developing areas of technology, such as AI, warning that while they can provide step changes in a business' productivity and flexibility, they should not be viewed as a black-box solution. Instead, he emphasised that they should be considered alongside a company's existing systems.

Attendees then commented that the move towards supply chain globalisation has seen pushback since the pandemic, asking what this means for West Midlands suppliers. DLA Piper's Tim Lake made the point that supply chain shocks have affected the sector's risk appetite, pushing manufacturers to collaborate closely with local suppliers.

"We're seeing the rise of reshoring and friendshoring as a strategy for mitigating international risks. Increasingly, supply chain decision-making is being driven by more than just cost."

"

Tim Lake, Head of Birmingham Corporate, DLA Piper

Digital transformation

Satnam Sahota, Legal Director at DLA Piper, then encouraged attendees to discuss the significance of digital transformation and what it means for them.

"In recent years, we've seen major advancements in Al. Many of the issues facing industrial supply chains are well-suited to being solved by this technology, which can enhance employee safety, strengthen levels of cybersecurity and enable more effective maintenance of infrastructure."

Satnam Sahota, Legal Director, DLA Piper

99-

However, he also discussed how perceived risk factors, such as Al's impact on worker morale, legal and ethical issues around its use, and potential PR disasters linked to the threat of injuries, means that many enterprises are still hesitant about its adoption.

Make UK's Chris Corkan went on to explain that the rollout of AI and digital technology across the region's manufacturing sector is being driven by a push to 'do more with less', as well as helping to boost productivity levels by improving quality and automating routine processes. Robotics and automation can support a more efficient use of factory space, minimise waste and reduce energy use and safety risks.

Attendees also addressed the common myth around the social threat posed by an increased use of automation and robotics, highlighting that their adoption often enables employees to focus on more creative, 'value add' tasks. However, there was a general consensus that larger corporates have a significant advantage when it comes to investing in digital transformation.

"From experience of Techno Group's digital transformation journey, I can tell you that it takes a lot of time, training, resources and persistence to effectively embed digital systems, automation and robotics technology in a business. As such, there's a real risk that SMEs get left behind."

Adam Land, Operations Director, Techno Group

In this context, Michael Harte, Managing Director at Bridge Cheese, highlighted the benefits of The Made Smarter Adoption Programme, which supports West Midlands SMEs in setting out their own digital transformation roadmap.

"Small and medium-sized companies like us don't have the time or budget to make mistakes. The Made Smarter programme has proven invaluable in this sense, enabling us to assess what big businesses have done well and approach digital transformation in a way that works for us."

Michael Harte, Managing Director, Bridge Cheese

Supply chain sustainability and ESG

The final topic of the evening, supply chain sustainability and ESG, was introduced by Becky Clayton, Partner at PwC, who highlighted the fundamental difference between the two terms.

"In principle, all businesses are coming under pressure to operate sustainably and contribute value to society over the long term. However, ESG specifically refers to what regulation in this area requires companies to do and the data that underpins their efforts. At the moment, much of this is focused around decarbonisation."

Becky Clayton, Valuation and Deals Partner, PwC

She stressed that while Government deadlines around carbon reduction may feel abstract, it would be a big mistake for manufacturers not to plan and act now. As well as focusing on finding carbon 'hotspots' in their supply chains, businesses are optimising value by looking at measures which take 'cost out and carbon out.'

It is also important to consider how best to incentivise suppliers to support the business' sustainability goals, with around 45% of supply chain managers currently doing this, despite facing challenges regarding the availability of data.

Attendees also discussed the industry's movement towards the 'circular economy' and that often, consumers are willing to pay a premium for products perceived to be more sustainable, such as those with a biolabel. Adam Land emphasised that without a clear steer from Government by way of policy, SMEs in particular run the risk of placing ESG objectives on the back burner until times of better understanding and clarity.

However, Becky concluded discussions by making the point that when it comes to securing protection from investors and other stakeholders, taking steps to do something and making a clear record of the business's efforts will always be better than doing nothing.

While the evening's discussion raised almost as many questions as solutions around supply chain best practice, attendees all agreed on the importance of big and small manufacturers alike taking time to learn lessons from the past, and from each other. By making the most of the West Midlands' collaborative manufacturing ecosystem and by tapping into the wide range of support and cross-cutting consultancy available, businesses can build robust, digitally enabled supply chains and better meet their sustainability objectives, whatever obstacles come their way.

HOW THE REGION'S UNIVERSITIES ARE KEEPING THE ADVANCED MANUFACTURING SECTOR AT THE CUTTING EDGE OF INNOVATION

Advanced manufacturing businesses face a plethora of challenges notably in relation to sustainability, global competition, acquiring new talent and skills, and securing Investment.

Formed in 2016, West Midlands Combined Universities (WMCU) is a partnership between Birmingham City University, Coventry University and the University of Wolverhampton. Wayne Langford, WMCU's Director, Prof Arun Arjunan, Director of the Centre for Engineering Innovation and Research (CEIR) at the University of Wolverhampton, Dr Omer Ozturkoglu, Associate Professor in Digital Transformation at Birmingham City University and Paul Fairburn, Director, Innovation Ecosystem at Coventry University highlight some key initiatives currently in place to help the region's advanced manufacturing sector rise to these challenges.



The Electric Revolution Skills (ERS) Hub at Coventry University

Innovation in skills development and meeting the future needs of industry partners in developing innovative, practical solutions with the right workforce is a key economic priority. There is a growing need for a workforce proficient in advanced technologies and digital skills and addressing this gap through education and training is crucial for sustaining growth. The ERS Hub bridges Coventry University's expertise in future skills mapping and talent delivery with innovative projects to meet the needs of industry, and wider place-based needs. The university received UKRI funding to design, develop and operate the national Electric Revolution Skills Hub to support the DER (Driving the Electric Revolution) Challenge. The Hub simplifies, encourages and facilitates interaction between recruiters, universities, training providers and the current and future PEMD (Power, Electronics, Machines and Drives) workforce.

The training and educational offerings available to the UK PEMD sector (online, in person, blended etc) are being catalogued and aggregated at a national level in a digital platform to provide a single source of information. The Hub works with all non-traditional training providers and educational institutions, including schools, colleges, universities in delivering levels 1-7 PEMD skills solutions.

The ERS Hub connects the PEMD (Power, Electronics, Machines and Drives) community. The Hub uses an integrated digital platform that gives inclusive access to training, development and jobs across the nation, to support and empower the sectors and supply chains of UK PEMD. The Hub and Coventry University, in collaboration with UKRI and the DER initiative, are committed to helping energise and grow the community so that it can meet the challenges of the future.

The UK Centre of Excellence in Additive Manufacturing at the University of Wolverhampton

Advanced processes and materials, such as beam shaping and copper, will aid knowledge exchange and enable new design and manufacturing innovations across many sectors. The University of Wolverhampton and 3D printing global leaders EOS, and AMCM, have joined forces to launch a new UK Centre of Excellence for Additive Manufacturing (AM).

The partnership will provide access to cutting-edge technology from EOS and AMCM and specialise in the development of advanced materials and processes for demanding applications within industries such as space, automotive, aerospace, electronics, and quantum computing. Partially funded by the UK's Regional Innovation Fund (RIF), The centre will be based in the Elite Centre for Manufacturing Skills (ECMS) at the University of Wolverhampton's Springfield Campus. The centre will be a hub for knowledge exchange and research commercialisation activities, catering for local, regional, and global customers in a wide range of sectors.



The University of Wolverhampton's Additive Manufacturing Research Group and its spin off company, Additive Analytics, will lead material and process development activities. Industries ranging from automotive and electronics to quantum computing and aerospace are already expressing interest, highlighting the broad applicability of copper AM for thermal management and electrification, due to its exceptional thermal and electrical properties.

Whilst copper has desirable properties, it is challenging to laser process it, hindering its widespread adoption in AM. The work of the consortium aims to address this by leveraging cuttingedge technologies, processes, and expertise to drive efficiency and reduce material waste.

Building on the University of Wolverhampton's 20-year relationship with EOS, the new Centre of Excellence will be bolstered by the adoption of an AMCM 290 FLX the next generation laser powder bed fusion system capable of processing challenging materials, such as copper. The AMCM 290 FLX is a customized EOS M 290 machine equipped with state-of-the-art nLIGHT beam shaping laser technology, high temperature processing capabilities and excellent oxygen control. The system offers businesses early and easy access to the latest technology and research findings.

Stimulating Innovation at **Birmingham City University**

The university's strategic projects, tools, research activities and short courses are designed to stimulate innovation, increase productivity and support competitive capabilities among Advanced Manufacturing businesses in the West Midlands.

At Birmingham City University's Graduate School of Management, one key area of focus is supply chain optimization. Through Knowledge Transfer Partnerships (KTP) with a logistics company managing a vast fleet, they are harnessing the power of Artificial Intelligence and Machine Learning algorithms to refine operational efficiencies, offering a sophisticated decision support system powered by a simulation that enhances network and fleet optimization.

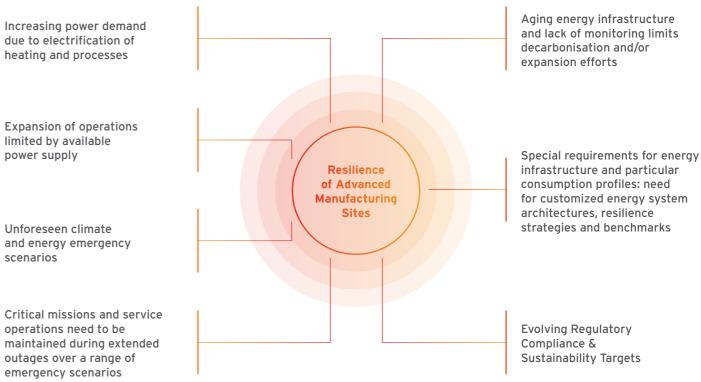
Similarly, another KTP with a manufacturing company providing the complete metal engineering solutions to major auto makers, targets strategic management capabilities in position, product, and business model innovation and marketing, as well as facilitating crucial onshoring activities in the automative supply chain network to reinforce the competitive edge of regional manufacturers.

The impact of our activity, importantly, extends beyond individual companies. For example, BCU offer SMEs free Promoting Sustainable Performance (PSP) Growth Diagnostic analysis which has been applied to 300 SMEs, including 30 advanced manufacturing companies in the West Midlands.

A key finding revealed a general lack of strategic planning, supply chain management and innovation. To close this gap, SMEs in the West Midlands are offered the 'Help to Grow: Management' short course. This course is a 12-week program, 90% governmentfunded, to develop the skills of business leaders while they are working full time. This intensive program fosters a culture of innovation and sustainable growth by equipping SMEs with the skills needed to succeed in areas such as leadership, digital adoption, innovation, marketing, responsible business and financial management.

ENERGY RESILIENT FACILITIES: THE NEED FOR SUSTAINABLE, LOW CARBON, **RESILIENT PLANNING**

Any energy intensive industry needs confidence in a resilient energy supply to ensure uninterrupted operations, mitigate productions risks, and maintain competitiveness in a highly uncertain current and future market. Juliet Mian, Global Resilience Skills Leader and Richard Pearce, UKIMEA Electrical Skills Leader, share ARUP's approach to advising its advanced manufacturing clients towards a holistic and long-term approach to energy resilience.



and energy emergency scenarios

operations need to be maintained during extended outages over a range of emergency scenarios

Figure 1: Motivations for considering energy resilience at an early stage in planning (©ARUP)



"Our heritage in, commitment to and focus on the region gives us unparalleled history in working alongside local businesses. This enables us to target the right support to the advanced manufacturing sector in many ways, ranging from investment in new start-ups, world class equipment and facilities, and hard/soft infrastructure to develop new processes and products.

The WMCU partnership is well positioned to support businesses to exploit new markets, and nurture critical skills sets in order to fully capitalise on new and existing regional, national, and international opportunities."

Wayne Langford, Director, West Midlands Combined Universities

The changing climate, and the importance of designing for current and future extreme weather events such as storms, heatwaves and floods, is one of the biggest drivers for resilience. Such events are systemic, meaning they impact every part of a system, from the natural environment, supporting infrastructure, workforce, supply chains as well as industrial facilities. Our clients are increasingly highlighting the importance of energy resilience to their overall business continuity, driven by one or more of the following challenges:

	Electrification & Expansion	Electrification and expansion of operations can be limited by the available grid supply and by existing on-site infrastructure.	
	High energy-intensity and complexity of energy system	The complexity of advanced manufacturing energy systems and the high energy intensity of operations pose challenges for decarbonization and energy supply security. Boundaries between energy, mobility, water and digital systems are increasingly blurred leading to a higher complexity of systems, and changes in one part can have a drastic effect on others.	
食	Aging & Inefficient Energy Infrastructure	Aging energy infrastructure and lack of monitoring limits decarbonization and/or expansion efforts and represents a risk for operational continuity.	
	Resilience against (climate) emergency scenarios	Critical missions and service operations need to be maintained during extended outages over a range of emergency scenarios. Extreme weather events are increasing in intensity and frequency and can overload electrical infrastructure and energy systems.	
$\langle \! \! $	Regulatory Compliance & Funding opportunities	Meeting sustainability goals and maintaining an overview of regulation and funding opportunities can be challenging. The transition to low carbon energy systems creates both opportunities and threats for energy system resilience.	
٥Û	Energy Scarcity & Price Volatility	Vulnerability to energy market fluctuations such price volatility and availability of PPAs.	

Key considerations

The ability to maintain critical functionality of energy systems is constantly challenged by a variety of disruptors. These disruptors can occur within a system or be generated by external factors and range from climate change events to wars and cyber-attacks and human factors. With the scale, frequency and intensity of these disruptors increasing, the importance of energy resilience planning has never been greater.

Extreme events	Transformation	Technological	Adversarial	Human factors
Extreme weather events	Energy market transformation	Electrical grid outage	War	Growing population
Natural hazards	Regulatory Compliance	Intermittency of renewables	Cyber-attacks	Changing demand & consumer behaviours
Geopolitical uncertainty	Decarbonization & Net Zero strategies	Digitalization	Acts of terror	Human error
	Aging infrastructure	New, disruptive technologies	Energy price instability	
	Electrification			

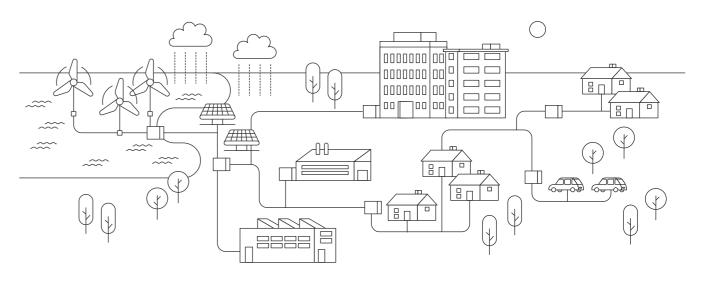
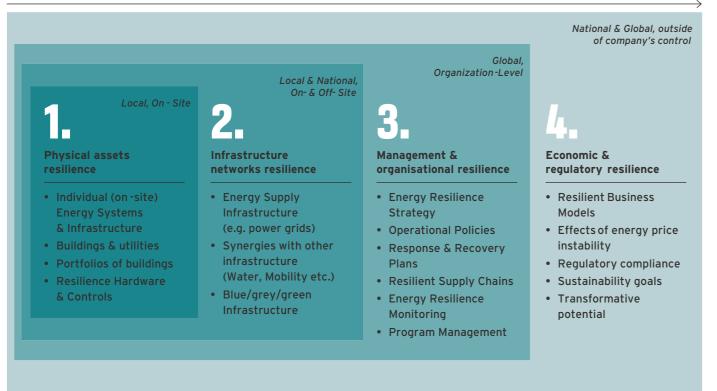


Figure 2: Disrupting factors affecting energy systems (©ARUP)

Energy resilience in the built environment can't be delivered by any one asset or organization. As the graphic below shows, there are considerations at every scale from individual sites to national and even global policy and regulation. Although only certain levers are within the control of any individual organisation, it is important to recognise these dependencies and interdependencies in planning for energy resilience.

Increasing scale



Urgency and site control

We know that the need for resilience is only one of our clients' priorities. We work with our clients to deliver an integrated approach to decarbonisation, energy resilience and climate adaptation, recognising that focusing on any one of these issues in isolation has the potential to set us on the wrong path for the future.

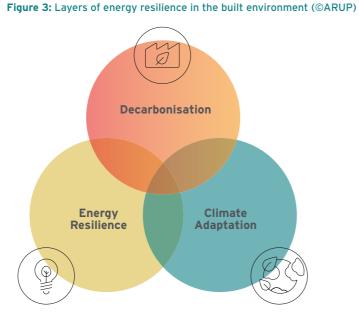


Figure 4: An integrated approach to sustainability and resilience (©ARUP)

Valuing resilience

If taken at face value, or viewed too narrowly, implementation of measures to ensure resilience in the long term can be perceived as a short-term cost burden. Without a clear business case, resilience will always feel like a 'niceto-have' rather than a 'must have'. As well as evaluating the direct and indirect costs of energy resilience shown below, we also advocate for capturing the wider benefits e.g. to nature and society.

Tangible Costs Productivity Loss Service or Delivery Delays **Equipment Damage** Materials Damage Product loss / Spoilage Customer Loss Cost of Backup Power



Figure 5: Valuing resilience. Source: Valuing Resilience in Electricity Systems (nrel.gov) (©ARUP)

ACHIEVING LONG TERM, SUSTAINABLE GROWTH IN TOURISM

The tourism sector has been a key driver of the region's post-Covid recovery. Becky Frall, WMGC's Head of Tourism and the team review recent volume and value data and consider how a range of key initiatives will help drive more footfall into the region.

Recent trends in volume and value

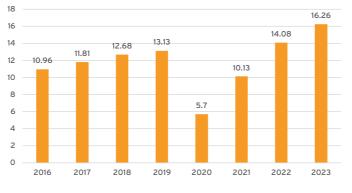
WMGC commissions an annual modelling of the volume and value of visitors attracted to the West Midlands, and the employment they support in the region's businesses. The Scarborough Tourism Economic Activity Model (STEAM) is informed by a wealth of local data including visitor surveys, delegate numbers, tourist footfall, available bed spaces, hotel occupancy and average spend per head. Shannon Chu, Senior Research and Evaluation Manager, reviews key findings.

Following the focused work leading up to and supporting Coventry City of Culture 2021 and the Birmingham Commonwealth Games 2022, visitor numbers, economic impact and jobs supported by tourism bounced back strongly in 2021 and 2022, in both volume and value terms, surpassing pre-pandemic levels.

In 2023 growth returned to the pre-pandemic average - with increases of 3% in visitor numbers. Growth in the economic impact of tourism was above the long term average with a 16% increase (although largely reflecting the higher inflation levels seen across the UK) and fulltime equivalent (FTE) jobs numbers grew by 9%, taking the region's labour market back above pre-pandemic levels for the first time.

This offers a beacon of hope that some elements of the visitor economy are stable and growing, in otherwise difficult trading conditions for our restaurants, bars and clubs, with the cost-of-living pressures, changing office-work patterns and spiralling food, energy and staffing costs impacting enormously on the ability to sustain these assets that are both the motivation to visit or high quality experiences that create the warm memories of time with family or friends.





Source: Natwest West Midlands PMI

Sector resilience and sustainable growth

Growth at any cost, however, is not the mantra for our region, and we consider ourselves fortunate that we do not have the antagonism between residents and visitors evidenced in areas suffering a high impact of tourism, such as Amsterdam, Cornwall or small island economies. In the West Midlands, the visitor economy is a very positive support to the cultural and sporting life of our region, sustaining a much wider range of events, attractions, retail, venues, festivals, cafes, bars and restaurants than residents or municipal authorities alone could support. It also nurtures the supply chain around business visits, exhibitions and events, and our excellent transport connectivity.

Alongside partners, we are therefore driving initiatives to boost the region's profile and attractiveness as a visitor destination, and to support long term, sustainable growth in volume and value. These include responding to growing demand for ethical and sustainable conferencing and visitor options and introducing a visitor pass to offer a window into the rich array on offer to visitors, a seamless booking experience and dispersal across the region's destinations.

Sustainable tourism

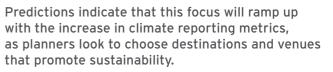
Alicia Winfield O'Hare, Sustainability and Research Senior Executive, highlights some of the key initiatives being brought forward to make the region's tourism sector more sustainable.

The West Midlands' Sustainability Roadmap to 2030 focuses on improving social, economic and environmental indicators across the West Midlands for a more sustainable, fairer and greener region for all. WMGC contributes to this roadmap by working with the Global Destination Sustainability (GDS) Movement to benchmark our destinations' performance, plan improvements and contribute to the practical delivery of our vision for sustainable – leading, in time, to regenerative tourism.

Directly supporting excellence in business practice, we are also offering sustainability accreditation for visitor economy businesses including hotels, venues and attractions with 'Green Tourism'. It not only makes good business sense, but there is also consumer demand for sustainable visitor options:

- 90% of people look for sustainable options when **travelling**.
- 74% want more sustainable choices.
- 65% would feel better about staying somewhere with a sustainability certification.
- 43% are willing to pay more for options with a sustainable certification.
- 80% of survey respondents said their organisations take sustainability into account when planning meetings and events.

THE WEST MIDLANDS - A TIME OF OPPORTUNITY



Green Tourism is the UK & Ireland's leading tourism sustainability certification, with almost 3000 members across the visitor economy: hotels, guesthouses, self-catering, visitor attractions, event venues and restaurants. The organisation is committed to advancing sustainability standards by empowering businesses with practical solutions and improvement plans. We are excited to offer West Midlands' visitor economy businesses an outstanding incentive. Sign up with Green Tourism today for:

- One year's fully funded membership of Green Tourism or Green Meetings.
- Subsequent 50% and 25% discounts in the second and third years respectively.

The sign-up period is currently open and will close on 31 March 2025. However, this incentive is only open to the first 200 businesses that apply. That said, regardless of when businesses sign up, they will receive a full year of membership.

For further details contact Alicia.winfieldohare@wmgrowth.com

ACHIEVING LONG TERM, SUSTAINABLE GROWTH IN TOURISM (CONTINUED)

Visitor Pass

Martin Clarke, Senior Tourism Marketing Manager, tells us more about the development of a regional visitor pass and the accompanying domestic campaign.

A regional visitor pass will help to stimulate economic growth by revealing the riches of our tourism offer, offering a seamless booking experience and attracting more visitors to destinations across the West Midlands. By encouraging both domestic and international tourists to explore the West Midlands' destinations and extending their dwell time, there is potential for significant growth in economic activity that will benefit local businesses. Based on similar city/region pass solutions across the world it is anticipated that a fully integrated and established visitor pass can drive £350,000 in revenue for attractions from over 5,000 passes per year, totalling 26,000 visits to attractions across 12,000 days. The development of the visitor pass has been a collaborative effort, involving a partnership including WMGC, local businesses and local authorities. The aim is to create a comprehensive package that highlights the best attractions, experiences, travel options, hospitality, and accommodation the West Midlands has to offer, boosting trade for local businesses, and encouraging visitors to spend more time and money in the region.

By integrating digital technology the pass will offer a modern and convenient solution for visitors to explore the West Midlands' destinations. The pass will be available through a user-friendly mobile application, allowing visitors to easily plan their trips through bespoke itineraries, access exclusive deals, and book their favourite attractions. This seamless integration through technology enhances the visitor experience, making it more likely for tourists to explore multiple attractions and extend their stay.

"By increasing awareness of how much is on offer, our aim for the pass is to increase footfall and bed nights, with a commensurate growth in spend on eating out and more visitors enjoying our nighttime economy. This increase in visitors will create a positive ripple effect, supporting jobs and creating new business opportunities across the region.

The pass will include partnerships with a diverse range of attractions, experiences and venues, from historical sites and museums to contemporary art galleries and entertainment venues. This approach not only highlights the rich culture of the West Midlands but also encourages visitors to discover lesserknown gems, dispersing economic benefit across the region."

Martin Clarke, Senior Tourism Marketing Manager, WMGC



BURSTING WITH CULTURE, ADVENTURE AND ENTERTAINMEN BIRMINGHAM & WEST MIDLANDS HAS IT ALLI

 $\begin{array}{c} \textbf{PASS IT ON} \\ \rightarrow \textbf{LET'S GO} \end{array}$

MEMO

MAKERS



SPOTLIGHT ON DUDLEY

As the home of key assets like the Black Country Living Museum and the Zoo and Castle, Dudley plays a key role in the region's wider regional tourism offer. Paul Mountford, Dudley MBC's Head of Economic Growth and Skills, highlights some key investments in the pipeline.

The leisure and tourism industries in Dudley have serious potential, having rebounded strongly following the pandemic to attract 9.4 million visitors in 2022 - an upswing of nearly 400,000 on 2019 numbers. Latest figures show the sector was worth £402 million, an impressive 27% increase on 2019. We are determined to harness this potential and support the growth of the local tourism sector.

rs. countless famous faces. With popular attractions like the Black Country Living Museum and Dudley Zoo and Castle only a short drive away, this reflects our ambition to establish Dudley as a borough with hospitality at its core.

A new entertainment guarter

Key to the drive to grow our borough's night-time economy is the transformation of two landmark buildings in Dudley town centre into a new Entertainment Quarter. In partnership with Dudley Council, local firm Hush Property Developments is renovating and repurposing Dudley's former museum and art gallery, the Old Glasshouse restaurant, and a neighbouring office block on Stone Street Square.

The Grade II listed former museum and art gallery is being repurposed as the Fun City hospitality and leisure venue, with food and drink, indoor cricket and mini-golf, laser tag, and escape rooms to be on offer for visitors to enjoy. Fun City will also house a collection of memorabilia from the life and career of the legendary Manchester United footballer Duncan Edwards, Dudley's most revered sporting hero who tragically lost his life in the Munich air disaster of 1958.

The Old Glasshouse restaurant on Priory Street has already been reopened as a popular sports bar as part of the project and the adjoining office block is being converted into the Royal Keep boutique hotel, which will offer luxurious accommodation for visitors from further afield.

A new transport interchange

Improvements to our borough's leisure offer will follow hot on the heels of a new transport interchange in the town centre. Backed by £24 million from the West Midlands Combined Authority's Cities Regional Sustainable Transport Settlement (CRSTS), the Dudley Interchange will replace the former Dudley Bus Station with a modern transport hub that connects bus services and the West Midlands Metro.

Our new developments will neighbour the existing

Dudley Town Hall, our historic and beautifully

constructed concert venue that has welcomed

With its first phase set for completion later this year, the Wednesbury to Brierley Hill Metro extension forms part of Transport for West Midlands' ambitious plan to regenerate public transport in the region. This investment will link Dudley and Brierley Hill directly with the Metro line serving Birmingham and Wolverhampton, allowing people to travel from Dudley to Birmingham in around 40 minutes.





"Exciting new developments are underway in Dudley as we look to boost our offer to tourists and visitors, both by day and by night."

Paul Mountford, Head of Economic Growth and Skills, Dudley MBC

UKREIIF - UNLOCKING INVESTMENT OPPORTUNITIES IN THE WEST MIDLANDS

Further investment in the West Midlands real estate and infrastructure offer is critical if (i) the region is to continue to be one of the UK's most successful FDI destinations and (ii) existing businesses are to continue to thrive, grow and see a long term future here.

Andrew Dunbar, WMGC's Head of Capital Investment, sets out how the West Midlands consortium at UKREIIF in May has sought to promote key investment opportunities and link local authorities with key private sector investors, developers and advisors.

UKREiiF, the UK's premier real estate and infrastructure forum, attracting more than 13,000 attendees and more than 150 exhibitors, plays a key role in engaging the development community and unlocking this investment. This year the West Midlands was the largest UK based consortium at the event, attracting over 3,000 visitors to 16 panel and spotlight sessions which highlighted key success stories and promoted key opportunities. The West Midlands Combined Authority and all of its eight Constituent and non-constituent authorities, alongside 17 of WMGC's Partners West Midlands members took part (with seven - Wavensmere Homes, Mott MacDonald, Nimbus, Stoford, Cordia UK, WSP and ARUP sponsoring the event). Key areas of discussion included:

 The strategic energy partnership between EoN and Coventry City Council - the first of its kind which will deliver low carbon infrastructure at pace to include community co-designed net-zero neighbourhoods.

"The energy transition is a way not only to create greener cities with better homes, cleaner air and healthier citizens, it's also a route to regenerating local economies - that's what we're striving for in our UK-first strategic partnership with Coventry City Council and it's what we're aiming to show people at UKREiiF.

Whether it is our work in and with Coventry, improving homes with energy efficiency measures across the area or the hundreds of skilled tradespeople coming through our new net zero training academy in Kingswinford these are exciting times across the Midlands and we're glad to help promote our home region."

Chris Lovatt, Chief Operating Officer at E.ON, West Midlands at UKREiiF Premier Partner

 Transforming derelict sites into sustainable new communities - with Wavensmere Homes highlighting case studies such as Crocketts Lane in Sandwell, Belgrave Village in Birmingham and Canalside South in Wolverhampton.

"

- The new Coventry Investment Prospectus, bringing a range of new opportunities to the market.
- Plans to revitalise the Mell Square area of Solihull town centre being developed by Muse and Solihull MBC
- Leveraging the opportunities created by the new West Midlands Investment Zone.

"We are particularly excited to discuss our emerging mixed-use Mell Square Masterplan which will provide a huge boost to Solihull's established commercial offer, whilst diversifying our nighttime economy, and creating a new multi-generational neighbourhood as part of a vibrant town centre."

Councillor Ian Courts, Leader of Solihull Metropolitan Borough Council

The WMGC team also held more than 100 meetings linking local authorities with key private sector investors, developers and advisors such as Catella APM, Igloo Regeneration, Genr8, Bidwells, Milligan and Story Investments. Discussions focused on key flagship projects such as West Bromwich town centre, the Green Innovation Corridor in Wolverhampton and Portersfield in Dudley,

- Delivering the housing and social infrastructure that can create thriving towns.
- The refreshed West Midlands Investment Prospectus, showcasing over £20bn of real estate and regeneration opportunities.
- Football as a driver of regeneration the role that football clubs have in challenging viability and driving regeneration using their prominence as global brands.
- The Digbeth and Learnington creative clusters with an in-conversation piece with Peaky Blinders and This Town creator Steven Knight.
- The Sandwell, Solihull, Nuneaton and Walsall town centre masterplans showing the market that our towns have big visions and want to work with the private sector to make this happen.

"As part of the emerging West Midlands Investment Zone the Green Innovation Corridor will drive the Green Industrial Revolution, building upon Wolverhampton's sustainable construction, green credentials and circular economy for transformation that will create quality jobs and opportunities for all."

Councillor Stephen Simkins, leader of City of Wolverhampton Council

26

"UKREiiF has established itself as the UK's leading industry event. So, as the UK's leading investment region, we felt that now was the perfect time to bring the whole region together and tell the market about our transformational role in the country's economy. The event provided a platform for us to demonstrate both our strengths - not least our collective scale, our young and diverse demographics, and the plurality of our economic sectors - as well as the specific investment opportunities in each local authority area that are set to transform the lives of our communities.

The real litmus test for investment promotion activity of this kind, which requires a big investment from all our shareholders, is the level of interest we get from the market and top-tier investors and developers.

This year, the West Midlands pavilion at UKREIIF was the focal point for some of the UK's leading funds and development companies - and their excitement for our region has never been higher. Even more encouragingly, their interest is stretching beyond their usual areas of focus, with conversations taking place about investment opportunities that extend right across our region."

Andrew Dunbar, Head of Capital Investment, WMGC

"Creating opportunities for organisations in our region to gain strategic visibility in front of peers, investors, funders and developers is critical to stimulating future growth. Our model this year enabled almost twenty commercial organisations - across many specialisms including residential, construction, engineering and advisory services - to join our local authority and university stakeholders in presenting the opportunities and expertise available in the region.

From chairing sessions within the programme and being panellists on the main stage and our own to cocreating digital and audio content for use in our buildup marketing and at-event activity, our partners were absolutely invested in the hugely successful delivery of the West Midlands programme and pavilion - attracting both media and delegate interest throughout the event." Caroline Pooley, Head of Commercial, WMGC

Please give us your feedback on this edition of our QED <u>here.</u>

For further information about the QED contact: <u>andy.phillips@wmgrowth.com</u>

Or for all enquiries regarding Partners West Midlands and its activities, please contact <u>partners@wmgrowth.com</u>

