

# Priorities for up-skilling and re-skilling: what role can and should universities play?

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*Supporting inclusive economic growth in the West Midlands and across the UK*

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## ABOUT WMREDI

WMREDI (West Midlands Regional Economic Development Institute) will be a catalyst for a step-change in regional collaboration. Alongside funding from UKRI's Research England and the matching funds from the University of Birmingham, we have secured matched funding from the leading regional stakeholders, including the West Midlands Combined Authority, involved in planning and delivering growth policies. This will be a shared collaborative approach to research and evidence in the region, as such all partners can utilise the structure to deliver research and data activities.

Key partners are:

- West Midlands Combined Authority (WMCA)
- Greater Birmingham and Solihull Local Enterprise Partnership (GBS LEP)
- The Black Country Consortium Ltd.
- The Coventry and Warwickshire Local Enterprise Partnership (C&WLEP)
- GBS Chamber of Commerce
- West Midlands Growth Company (WMGC)
- Aston University, Birmingham City University (BCU), Coventry University and Wolverhampton University
- Other partners include Birmingham City Council and the other local authorities in the West Midlands metropolitan area and the Midlands Engine.

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## SUMMARY

- This report summarises findings from a **research project examining the role of universities in skills and regional economic development**. It identifies key short and medium-term priorities for the up-skilling and re-skilling of school leavers, graduates and existing employees in the West Midlands. It analyses the current and potential future role of universities within this.
- It is based on analysis of 22 **interviews conducted in winter and spring 2020/2021 with universities and selected colleges** in each Local Enterprise Partnership (LEP) area in the West Midlands Combined Authority area (WMCA), as well as their partner organisations. It contrasts experiences across the various universities.
- **Universities and colleges in the West Midlands contribute considerably to up-skilling and re-skilling** through developing future sectoral skills, piloting new ways of learning, supporting graduate employability, addressing access to higher education (HE) barriers, developing pathways between further education (FE) and HE, introducing applied higher-level skills development initiatives and working with regional governance stakeholders. Universities act as **attractors and producers of talent, support knowledge transfer and help with pivoting business models**. They have **established various programmes and institutes to support up-skilling and re-skilling across specific sectors** important regionally.
- **Strengthening partnership working** across universities and regional stakeholders is likely to be crucial to effective up-skilling and re-skilling over the next decade. Key skills-focused partnership opportunities for universities relate to developing analysis of skills needs in local areas, improving support for graduates given the challenging labour market caused by the Covid-19 pandemic and better linking skills to innovation and developing higher level skills through regional investment and R&D and innovation activities.
- A **number of challenges exist** including: questions regarding the quality and nature of partnership working; how competition between universities can hinder genuine cooperation; the impact of bureaucratic systems and continued funding instability; different language used in policy, academia and business; competing skills priorities at a Midlands Engine level; a lack of clarity in some cases regarding roles and responsibilities at sub-regional level; and difficulties articulating future skills needs.
- It is important **universities expand their role in up-skilling and re-skilling**. The research **identifies 12 key short- and long-term priorities** for universities and other regional stakeholders. They include simplifying progression routes between FE and HE.

## CONTEXT

Recent research has identified **potential severe shortages in basic digital, core management and STEM skills** across the UK by 2030, when 5 million workers may be acutely under-skilled in basic digital skills, whilst up to two-thirds of the workforce could be partially under-skilled (McKinsey, 2019). Advances in technology, such as automation and big data, are impacting on the labour market. Approximately 7.4% of jobs in England are at high risk of some of their duties and tasks being automated in the future (ONS, 2019). This emphasises the **importance of graduates and school leavers receiving relevant training and support to access higher-skilled roles** as well as the need for **effective up-skilling and re-skilling pathways for individuals already in the workforce**. Better supported **lifelong learning** and training programmes have been emphasised as especially vital in enabling individuals to remain in the workforce for longer and increasing productivity (Foresight, 2016; Lyons et al. 2020). The pandemic has rapidly accelerated the pre-existing shift to digital and online learning (CIPD, 2021).

Evidence indicates that there are ongoing skills shortages and that **training and workforce development activities** are also **declining**. Being unable to recruit staff with required skills is an increasing cause of skills gaps in the UK. In the 2019 Employer Skills Survey, 32% of employers identified this as the main cause of skills gaps compared to 25% in 2015 (Winterbotham et al, 2020). Qualitative interviews conducted with employers in 2019 identified how, in addition to demands relating to up-skilling, **employers increasingly value staff who possess a mix of skills** (for example, digital, technological, negotiating and other social and behavioural skills) (Green and Taylor, 2020). Employers also seek labour market entrants who not only possess “better literacy and numeracy, relevant qualifications and/or discipline-specific training but also for more positive attitudes towards work as well as ‘character’ attributes”. Stronger collaboration between education providers and employers is important in ensuring education-leavers have acquired the skills most sought by employers (Foresight, 2017).

Changes in skills demand are occurring at a time when **training patterns** in the UK are also **changing**. The incidence of training and workforce development, the proportion of the workforce trained, and the number of training days undertaken have declined over recent years (Li et al., 2020), whilst online training and e-learning has increased (Winterbotham et al, 2020). The evidence cited above relates to the period before the Covid-19 pandemic. The associated **economic shocks** and impacts of recession and the focus on economic recovery **give additional impetus to as up-skilling as well re-skilling**.

The context for re-skilling and up-skilling is multifaceted. The **skills system is complex** – but perhaps it needs to be because skills pathways are complex. In January 2021, **the government published a [Skills White Paper](#) setting out reforms to post-16 technical education and training** designed to support people to develop the skills needed to get good jobs and improve national productivity. Key measures aim to: enable employers to have a greater say in the development of skills; develop higher level technical skills; provide a flexible, lifetime skills guarantee; simplify and reform funding and accountability for providers and support outstanding teaching. Employers will work alongside FE colleges, other providers and local stakeholders to develop new Local Skills Improvement Plans shaping technical skills provision to better meet local labour market skills needs. In terms of up-skilling and re-skilling, the paper aims to provide advanced technical and higher technical skills through the new **£2.5 billion National Skills Fund** which “will include an offer, backed by £95 million in 2021-22, for all adults to achieve their first full advanced (level 3) qualification as part of the Lifetime Skills

Guarantee”. **HE-FE collaboration is encouraged through the proposed expansion of the Institutes of Technology** programme. The paper sets out how the law will be changed from 2025 to **enable individuals to access flexible student finance to support them to train and retrain** throughout their working lives. In 2021/2022, funding will be available to test ways to develop access to more modular and flexible learning (Hubble et al, 2021). Questions exist regarding the extent to which the Department for Education take account of the extent of the varied local skills landscape.

It is difficult to predict precise future skills needs. Consequently, education providers “are working against a moving target trying to address already identified skills whilst also trying to anticipate future requirements for work and life” (Parr, 2021). These challenges are exacerbated at the time of writing by the instability of the labour market in the light of the Covid-19 pandemic. Interviewees argued that it is more **difficult to see future skills requirements when a large number of people are on furlough and at a time of rapid development of new ways of working in response to Covid-19**.

The Covid-19 pandemic has opened employers’ eyes to the use of technology and more flexible ways of working as they have sought to maintain productivity levels despite the introduction of lockdowns (Forbes et al, 2020). In particular, Covid-19 appears to have accelerated a **fundamental shift to online learning** (World Economic Forum, 2020). This offers possibilities in relation to developing attractive continuing professional development (CPD) training that could help address the large decline in part-time adult learning. However, the pandemic has also shown that there are limits to digital learning. Whilst very useful as it can avoid unnecessary learning and travel, questions exist over whether it enables as in-depth learning as face-to-face learning and whether it provides the social interaction and the skills, which come from this.

Up-skilling and re-skilling are particularly important in the West Midlands<sup>1</sup> given the region has experienced longstanding challenges with residents struggling to access good employment due to low skills levels. Table 1 reveals how there is a particular need to raise higher skills levels in the Greater Birmingham and Solihull LEP area and the Black Country LEP area.

Variable	Black Country	C&W	GBS	West Midlands	UK
% with NVQ4+ - aged 16-64	24.7%	40.2%	35.4%	33.5%	40.2%
% with NVQ3 - aged 16-64	16.4%	18.8%	18.3%	16.7%	16.8%
% with NVQ2 - aged 16-64	19.4%	17.3%	18.6%	17.4%	15.7%
% with NVQ1 - aged 16-64	12.7%	8.9%	10.0%	10.5%	9.9%
% with other qualifications (NVQ) - aged 16-64	10.0%	7.5%	7.8%	8.3%	6.6%
% with no qualifications (NVQ) - aged 16-64	16.7%	7.3%	10.0%	11.3%	7.9%

**Table 1: Qualifications across the West Midlands region, 2019, Annual Population Survey.**

Rapid technological adoption risks further excluding those who were already struggling to access employment because of a lack of advanced skills. Covid-19 further underscores the importance of

<sup>1</sup> This report focuses on the West Midlands Combined Authority 3-LEP area (the Black Country, Coventry and Warwickshire and Greater Birmingham and Solihull). (However, some of the statistics presented relate to the West Midlands NUTS 1 region.)

developing effective up-skilling and re-skilling pathways. The pandemic has accelerated the move to home-based working making digital skills essential for employment and job search. Recent progress in raising skills levels in the West Midlands, particularly in Greater Birmingham and Solihull and the Black Country, which have experienced lower skills levels and higher unemployment rates, could be undermined or even reversed due to the impact of the crisis as employers may be less inclined to offer apprenticeships and work-based learning (WMCA, 2020). Across the West Midlands region, the proportion of individuals with no qualifications fell from 18.2% to 11.3% between 2009 and 2019. Across the UK, it fell from 13.7% to 7.9%. Working Futures projections for future employment prospects in the West Midlands indicate that there is likely to be growth in white collar and highly skilled jobs in the region over the next decade. ‘Hollowing out’ of the labour market over this period may lead to growth in low and high-skilled employment at the same time as a decline in intermediate roles (for example, administrative roles and skilled manual trades). However, replacement demand requirements mean that there will be employment opportunities across all occupational groups (see Figure 1).

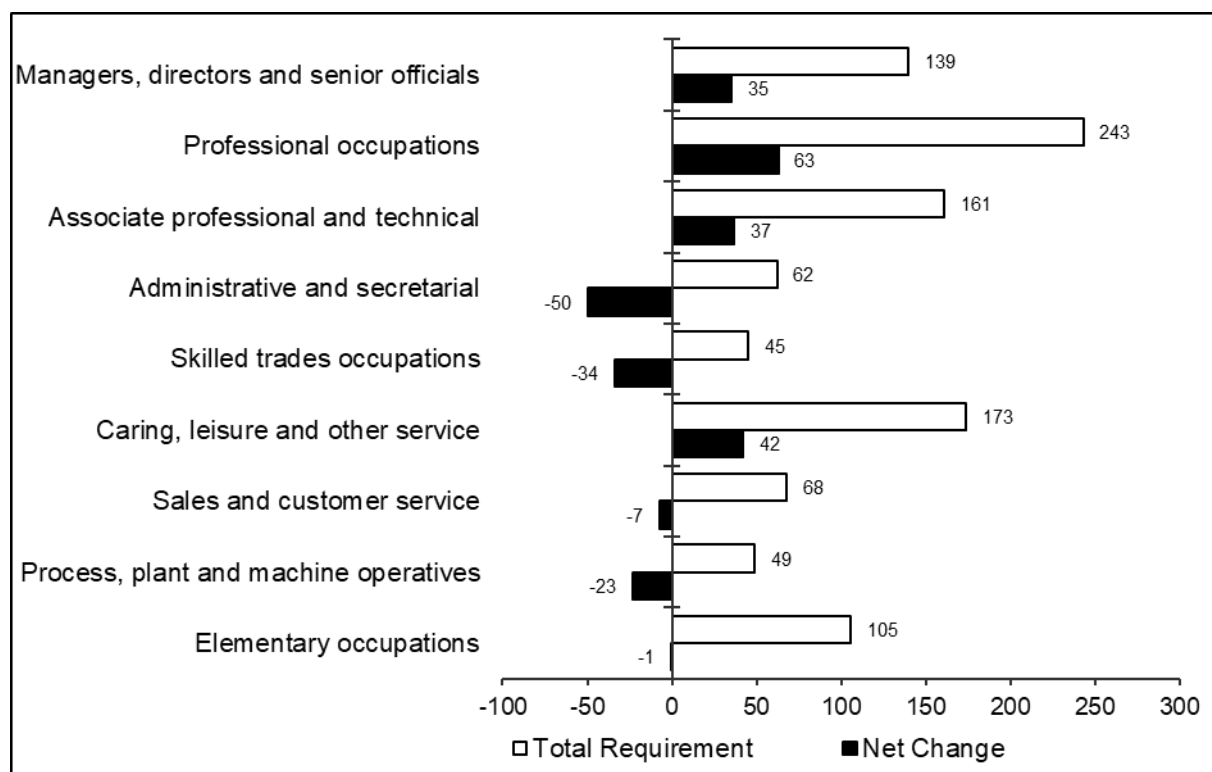


Figure 1: Replacement Demand by Occupation Group in the West Midlands (SOC 2010) 2017-2027, Working Futures.

Focusing on the West Midlands enables comparison of differing university models across the three West Midlands LEP areas:

- Greater Birmingham and Solihull LEP is home to five universities which vary in terms of history, specialism, size, research-intensity, international focus and links to local communities: Aston University (Aston), Birmingham City University (BCU), Newman University (NU), University



College Birmingham (UCB) and the University of Birmingham (UoB).<sup>2</sup> [The Greater Birmingham & Solihull Institute of Technology](#) is led by Solihull College & University Centre, Aston University and Birmingham City University, working alongside South and City College Birmingham as a Core partner and supported by BMET College, University College Birmingham and the University of Birmingham, as well as a range of employers. Opened in September 2020, it specialises in Engineering and Manufacturing courses.

- The Black Country LEP has one highly localised university (University of Wolverhampton) as well as a number of FE colleges (including City of Wolverhampton College, Dudley College of Technology and Walsall College). Dudley College was ranked “outstanding” in its’ latest OFSTED inspection (OFSTED, 2017). The [Black Country & Marches Institute of Technology](#) is a collaboration between Dudley College of Technology, the University of Wolverhampton, the University of Worcester, Avensys and In-Comm Training. Specialising in providing training in the advanced manufacturing & engineering, modern methods of construction & offsite and medical engineering and healthcare sectors, it will open in September 2021.
- Coventry and Warwickshire LEP area includes two universities (Coventry and Warwick) and one of the largest further and higher education colleges in the UK (Warwickshire College Group) (WCG). Both have relatively large numbers of international students, although the former is traditionally more localised in orientation than the latter – albeit local engagement of the latter has become a greater priority in recent years. Both universities have strong links with local priority sectors. WCG is a group of seven Colleges (in Warwickshire and Worcestershire) formed from successive mergers between 1996 and 2016.

**Regional and pan-regional university structures** also exist. Birmingham City University, Coventry University and the University of Wolverhampton have created a formal partnership, West Midlands Combined Universities, to support the WMCA. BCU and Coventry University, together with four universities in the East Midlands are part of Midlands Enterprise Universities, a partnership of entrepreneurial universities working together to support the Midlands Engine for Growth. The partnership aims to “drive productivity and growth in the Midlands through skills, innovation and enterprise” (Midlands Enterprise universities, no date given). Midlands Innovation is “a collaboration between the eight research-intensive universities in the Midlands”. Its ambition is “to drive cutting-edge research, innovation and skills development that will grow the high-tech, high-skilled economy of the Midlands and the UK” (Midlands Innovation, no date given). It includes Aston, UoB, and the University of Warwick from the WMCA area. Colleges West Midlands is a formal partnership of the region’s 21 further education colleges. It “recognises the need to raise the technical skills of young people and adults in further education, to support the up-skilling of the region’s work force and to promote inclusive growth” (Colleges West Midlands, no date given).

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<sup>2</sup> One interviewee suggested that the existence of several different universities, and similarities in some of the names, led to confusion amongst some employers regarding the different universities and sometimes which university they were actually dealing with.



## METHODOLOGY

This report is based on 22 **semi-structured qualitative interviews** conducted with representatives from **universities and selected colleges across the West Midlands Combined Authority 3-LEP area, regional stakeholders and partnerships representing different universities**. The interviews were conducted between November 2020 and April 2021.

Semi-structured interviews were selected over structured or loosely structured interviews. This gave the freedom to tailor the order of the research questions and add supplementary questions according to the experiences of each organisation interviewed whilst at the same time providing sufficient structure to allow responses to be compared and conclusions to be drawn across respondents (Bryman, 2008; Mabry, 2008). Participants in the research are not identified in this report to ensure anonymity of those taking part.

The research questions focused on:

- The role of universities in regional economic development and recovery in general;
- Opportunities and challenges faced by universities and colleges in regional economic development;
- Short-term skills responses in universities and colleges prior to the start of the Covid-19 pandemic;
- Medium-term skills responses in universities and colleges prior to the pandemic;
- Short-term skills responses to the crisis caused by the pandemic;
- Medium-term responses to Covid and, possibly, post-Brexit context;
- Opportunities and challenges faced by universities and colleges in relation to partnership working;
- Specific examples of partnership working post Covid-19;
- The extent of, and driving factors behind FE-HE collaboration;
- Opportunities for, benefits of, challenges to FE-HE collaboration;
- The extent of HE-HE collaboration in terms of skills issues;
- Opportunities for, benefits of, challenges to HE-HE collaboration;
- Priorities for HE collaboration (and HE-FE collaboration) for the benefit of: (a) the regional skills system; (b) regional economic development; and (c) regional civil society.

## WHAT ARE THE PRIORITIES FOR UP-SKILLING AND RE-SKILLING?

Up-skilling and re-skilling are ongoing priorities. A distinction is made here between short-term priorities (within the next three years) and the medium-term (over the next three-ten years). Some priorities span both the short- and medium-term.

### Short-term priorities

The pandemic was described as accelerating existing trends and creating a number of short-term priorities for up-skilling and re-skilling. As one interviewee in a large College stated, “the pandemic is almost highlighting what the future probably needed to be anyway, it's just bringing it very much to the floor”. Prior to the Covid-19 crisis digital skills were noted by stakeholders as a priority. The pandemic added urgency for the development of **digital skills** – across the spectrum from basic skills to more advanced digital skills, which underlie digitalisation across many sectors. Importantly as more teaching has been delivered virtually and learning materials have moved online, learners at all levels need to reach a threshold level of digital skills to not access online learning materials but also have the confidence to use them.

Some interviewees (both from universities and amongst policy stakeholders) considered that in the short-term, given the effort and achievement of many teaching and learning providers in moving content online, there is an opportunity to promote wider access to more learning materials remotely. This might serve to enhance the digital content in **blended learning** offerings. It also offers the opportunity for FE to be able to draw on some learning materials developed in HE.

In the context of recession and redundancies in some sectors there is an enhanced need for focused **short-duration** (ranging from a few days to a few weeks) **up-skilling and re-skilling programmes within HE (and FE)** to equip the unemployed to transition into new jobs. Traditionally, the majority of HE provision has been delivered on a full-time basis requiring enrolment onto courses at particular times of the year. This has meant that it has been difficult for individuals in employment to access much of the HE provision on offer, unless through degree apprenticeships or specific shorter courses (co-developed with employers). For both those individuals looking to pivot into new sectors and occupations in the short-term in order to transition from non-employment to employment, and for those in work who want or need to engage in lifelong learning, certified short courses providing micro-credentials and bite-sized flexible CPD programmes (as noted elsewhere in this report), at RQF Levels 4, 5 and 6,<sup>3</sup> are short- and medium-term priorities.

Some up-skilling and re-skilling programmes are likely best **delivered collaboratively across FE and HE**. This suggests that it is important to **clarify skills priorities** – both across different institutions but also at different spatial scales, in order to rationalise effort and maximise use of different funding streams that might be available for innovations in delivery.

In the context of the Covid-19 crisis a particular focus is on **health and social care**. In the short-term there is impetus to upskill those in various healthcare occupations in order that they can be more readily deployed as required. It also makes sense to accelerate investment in opportunities where

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<sup>3</sup> Regulated Qualifications Framework (RQF) Level 4 is Year 1 of a 3-year Bachelor's degree, Higher National Certificate (HNC); Level 5 is Year 2 of a 3-year Bachelor's degree, Higher National Diploma (HND), Foundation degree; Level 6 is a Bachelor's degree.

there are already strong regional partnerships and critical mass in medical technologies and data analytics to accelerate the development of customised healthcare solutions.

Relatedly, another short-term priority is **investment in skills and career development of existing staff** in order to support their progression. One such example is the [Technician Commitment](#) across the Midlands Innovation universities which is focusing on collaborative training of technicians across universities, in recognition of their important role in enabling teaching, research and outreach activities.

The greater necessity for lifelong learning in the context of an ageing population, technological developments and other trends outlined above, requires that more attention in HE is paid to the years beyond the immediate post-18 period to individuals seeking to re-skill throughout their lives. In the short-term, however, a priority must be **ensuring positive outcomes for students currently (or recently) graduating from HE into a difficult labour market** and who are at risk of suffering longer-term scarring as a result of negative experiences during economic recession. This is likely to be especially the case for graduates from disadvantaged backgrounds. One concern raised by interviewees was that no support was available specifically for graduates, although graduates could be supported through the Kickstart scheme. Universities are working hard on developing enterprise support for students and opportunities for internships, so building links to local businesses (including as part of the civic university agenda). There was a call for dedicated support for new graduates, perhaps through financial incentives to local employers to take on graduates.

In both the short- and medium-term, three further important priorities were identified. First is **addressing the sharp decline in job-related training** outlined above, especially given that investment in training is a relatively easy item of expenditure to cut back on at a time of economic crisis. Second is investing in **management and leadership skills**, given that the Covid-19 crisis has brought the importance of line management skills to the fore as many employees have had to adapt to new ways of working. Third is not overlooking the importance – for everyone – of nurturing and developing **soft skills** which are important for survival, adaptation and growth in the workplace.

### Medium-term priorities

Several of the priorities highlighted for the short-term remain pertinent for the medium-term too. For all individuals, regular updating of **digital skills** is one such priority, given new developments in software, hardware, applications and source of information. Keeping digital skills up-to-date is essential to enable access to lifelong learning opportunities. The need for data analytics skills, ability to deal with real-time data and complex analytical skills is evident across sectors and occupations. Similarly, in the medium-term **expanding the range of accredited short courses and bite-sized provision** is a priority to enable individuals to pursue up-skilling and re-skilling pathways, which suit their own requirements across vocational and traditional academic qualifications. As noted above, this requires universities and colleges to provide several flexible routes to education, sometimes collaboratively, in order to develop skills. In this way schools, and particularly colleges and universities, can connect up with the ambition to build a hierarchy of skills provision.

A key medium-term priority, which will help enable the development of flexible routes, is the **expansion of part-time higher education (HE) opportunities**. The House of Commons Education Select Committee (2020) noted that part-time student numbers in collapsed by 53% between 2008–09 and 2017–18, with tuition fee reforms playing a key role in this decline. The Committee identified

flexible part-time university study as a key route for delivering a highly skilled workforce and outlined that the Department for Education needs to prioritise reforms that will **restore the part-time higher education sector**. Such restoration is one building block for the medium-term priority of **developing a culture of lifelong learning** (Whiteley et al., 2020), where a **flexible learning model** allows individuals to hop on and hop off learning opportunities and build up towards a qualification, rather than commit to a full qualification in one go.

Reference was made under short-term priorities to the focus on **health and social care**. This will also remain a priority in the medium-term. The point above about investing in medical technologies and data analytics to accelerate the development of customised healthcare solutions exemplifies a wider priority for the medium-term about **better connecting skills, innovation and R&D**. So, for leading research universities regional investment in R&D and innovation activities is “no longer just innovation and R&D; it's [about] getting together and helping grow the skills that are needed for new technologies and new businesses” (university stakeholder). These skills are at a variety of levels, not only at degree and postgraduate levels, and need to be accessible through a range of learning routes.

Alongside the healthcare sector, **energy and clean growth** are medium-term priorities associated with Industrial Strategy Grand Challenges. Equipping people with skills to work in these sectors is crucial.

Better connecting skills to innovation also involves **raising the ambitions of businesses in the region**, in order that they can better engage with, and utilise, the higher-level skills from universities. This is particularly the case for SMEs, which might not necessarily have employed graduates and have no dedicated graduate recruitment schemes, but may nevertheless benefit from graduates' skills. In the short-term, universities are devoting attention to internships, placements and business support to local SMEs, and this needs to be part of a medium-term priority to facilitate greater interaction between universities and SMEs in order both for graduates to utilise their skills in local businesses, and to help SMEs pursue opportunities for innovation and growth. Here it is also important that universities ensure that students/graduates develop generic skills required by businesses, while recognising that it is the largest employers that are likely to have most influence in developing course design. However, businesses of all sizes may benefit from student/graduate placements on specific defined projects geared to their business needs. Previous research involving universities across the UK and internationally has emphasised challenges caused by inflexibility on the teaching side to changing demands from employers and poorer communication channels for this compared with collaboration on research. There is increasing policy interest in engendering collaboration between universities, businesses and public policy stakeholders to foster the development of innovation and entrepreneurship capabilities to achieve greater productivity, employment and returns from research (Billing, 2020).

In the immediate context of the Covid-19 crisis and Brexit opportunities for international exchanges/overseas placements of students are limited. Yet with a growth in remote working in some sectors and occupations, and given that some graduates will be working for international companies (whether located in the UK or elsewhere), a medium-term skills priority for universities is **ensuring that students/ graduates develop an international mindset**. There is scope for exploring how universities can work with their partner universities elsewhere to develop a **global outlook**.

Universities are also increasingly providing their students with what an interviewee described as a **'rounded CV'** – ‘so it's not just about gaining a qualification, but about placements, volunteering,

enterprise, etc., to set them up for a career'. This is likely to remain a priority in the medium-term and there is scope to link such activities with universities' enhanced civic role. This is about both deepening and broadening universities' connections with their local and regional communities and can entail working with community groups and schools, so opening up what universities can offer in relation to skills, learning, facilities, businesses and other support, which can help foster **social mobility**.

## WHAT IS THE ROLE OF UNIVERSITIES WITHIN UP-SKILLING AND RE-SKILLING?

**Across the universities, interviewees emphasised universities' "very important" role in the regions' future because of their "access to and ability to shape what the next generation of workers and leaders contributes to the region". In terms of their strategic role within up-skilling and re-skilling, they emphasised that universities are attractors and producers of talent, support knowledge transfer and help with pivoting business models.**

Interviewees differed in how they perceive the role of universities in producing talent, with some focusing on providing a general education and others seeking to develop particular future skills linked to key sectors. Whilst all interviewees iterated the importance of maintaining their normal delivery to ensure students develop the skills required to find employment, the skills that universities prioritise developing varies between interviews conducted with representatives from Russell Group universities and interviews undertaken with representatives from more modern, locally-embedded universities. An interviewee at a Russell Group university perceives the university's role in relation to educating people for life rather than addressing particular skills gaps. They explained how the **university education models focus on providing a general education to enable individuals to develop "a toolkit for a lifetime education"**. This chimes with the point about 'rounded CVs' identified above. This model has been developed in response to challenges predicting future skills needs, the relatively low percentage of graduates from the university that remain in the region and the time required to regularly update programme content. By contrast, **up-skilling and re-skilling priorities were driven to a greater extent by the needs of local residents attending modern, less research-intensive universities**. For example, Birmingham City University's strategy emphasises the need to respond to changes in professional practice driven by AI and digital working. Their skills policy and engagement programmes are driven by their high percentage of undergraduates (70%) who are drawn from local areas and remain in the West Midlands to work. As such, responding to local and regional employer needs is a high priority.

Another role for universities in up-skilling during the Covid-19 pandemic and its aftermath relates to **supporting school leavers who have had nearly two years of remote education**. This poses particular challenges for disadvantaged individuals in terms of accessing HE to develop higher-level skills. Interviewees stressed the role of university outreach programmes in overcoming barriers to university entry as well as ongoing careers guidance and skills support once disadvantaged students enter HE.

As well as directly providing skills development, interviewees emphasised the role universities can play in **supporting strategic level thinking on skills** through sitting on key skills boards within the West Midlands and contributing to the development of skills policies at a local and regional level. Due to their trusted position, universities can broker and convene relationships between employers and regional stakeholders and facilitate discussion. In relation to skills they can use long established partnerships to understand economic needs and challenge existing thinking to "promote a position of

thought leadership”. Universities have a role to play in working collaboratively to identify the skills required for the growth of key sectors. Given the historical importance of engine production in the West Midlands, interviewees stressed universities in the region have an especially important role to play in developing the research and people with the required skillsets to support green growth (for example, battery technology and electric cars).

Building on strategic level-input, interviewees discussed how universities **develop the research and upskill individuals with the required skillsets to implement regional and local growth policy** and achieve key outcomes.

Universities can use knowledge from employer and regional stakeholder partnerships to **develop higher-level degree apprenticeship programmes and expand careers training for full-time undergraduate students in addition to core module content**. This can include developing internship opportunities for students and graduates as well as designing doctoral training programmes, which equip doctoral students with the personal and professional skills required for a variety of career pathways. One partner organisation also stressed how they would like to see universities develop support for students on placements years given the growing importance of behavioural skills in the labour market.

**University-led incubators and accelerators** are important in creating an environment in which new skills are developed. Universities have a role to play in supporting enterprise and entrepreneurs and adding value in terms of responding to the declining manufacturing base in the West Midlands. This includes **helping businesses to pivot business models** in response to economic shocks and helping student and graduate entrepreneurs to develop the skills necessary to establish start-ups. The Aston Centre for Growth plays a key role in leading growth programmes and providing other opportunities for SME owners who are looking to grow their businesses. Also based at Aston University, the Centre for Research in Ethnic Minority Entrepreneurship (CRÈME) is active in researching and facilitating support for ethnic minority businesses.

Interviews revealed how partner organisations value the role universities can play in **developing new models of learning** such as online learning, particularly in response to disruption to the education system.

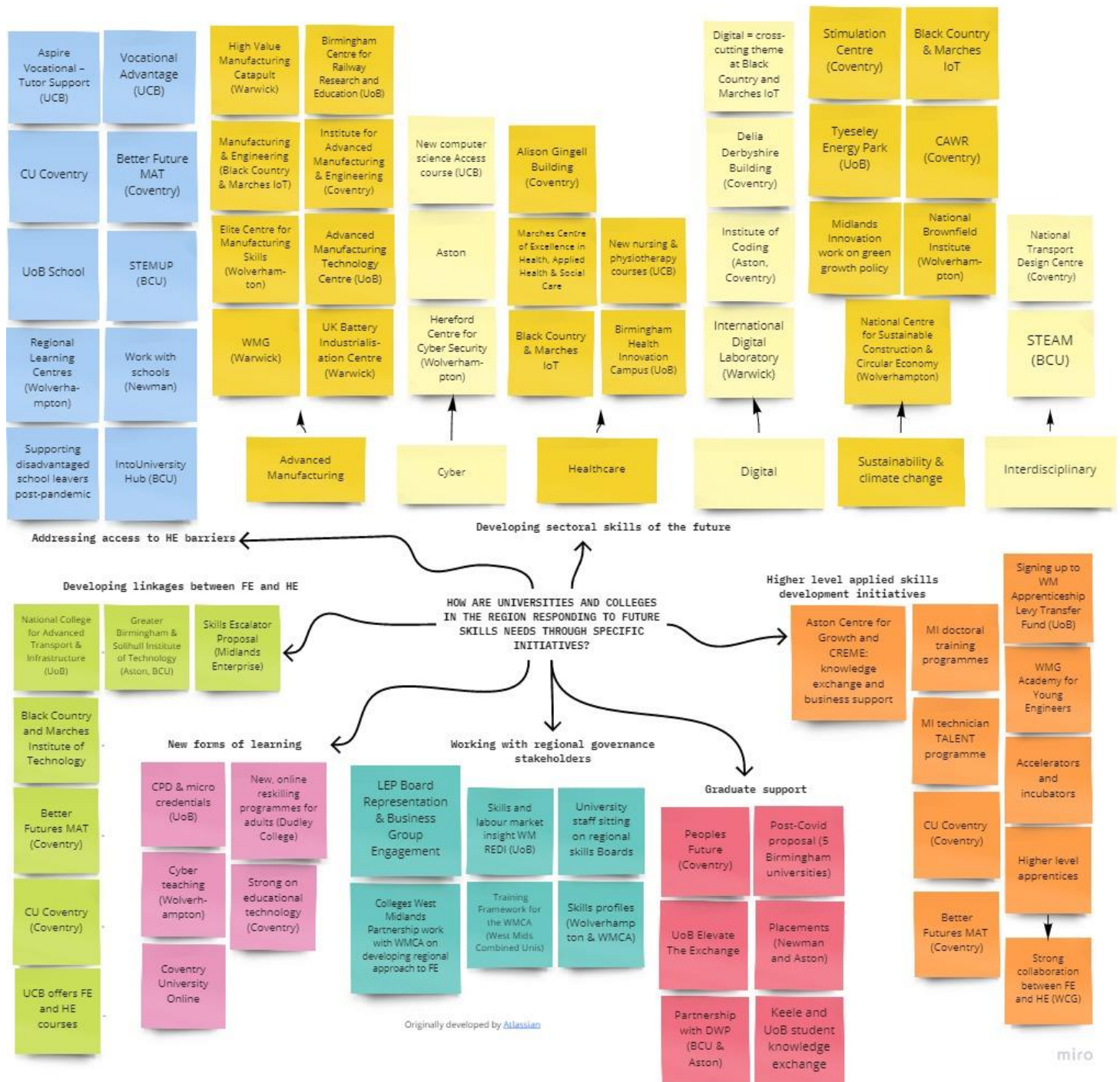
## HOW ARE UNIVERSITIES IN THE REGION RESPONDING TO FUTURE SKILLS NEEDS THROUGH SPECIFIC INITIATIVES?

The research has identified that universities and colleges are already responding to future skills needs through a variety of initiatives. Figure 2 below classifies selected current initiatives according to seven categories (each represented by a different colour). The following paragraphs describe selected key initiatives in each category.

The diagram does not attempt to focus on immediate non-skills-focused responses to the Covid-19 pandemic since these are already well documented elsewhere. For example, the [West Midlands Combined Universities](#) have published case studies examining the role of the universities dealing with the immediate challenges created by Covid. The report emphasises contributions from manufacturing PPE, to providing accessing to specialist facilities, to developing support services for students and key workers, to the impact of student volunteering ion different communities. [Midlands Innovation](#) have produced a report examining how universities in the network have contributed to efforts to develop treatments for Covid-19.



**Figure 2: Diagram showing how universities and colleges in the West Midlands are responding to future skills needs through selected specific initiatives.**



## 1. Addressing Access to HE barriers

Universities across the region already have a range of schemes in place to address access to HE barriers. These include Aimhigher West Midlands, a partnership of universities “working to support learners who face a number of challenges to broaden their horizons and make informed decisions about their future educational and career choices”. Aimhigher forms part of the Uni Connect Programme funded by the Office for Students (Aimhigher, no date given). Individual universities have also developed individual approaches. For example, UoB’s **widening participation programmes** engage over 10,000 West Midlands students on campus every year to motivate and widen participation to HE (University of Birmingham, no date given). A key part of the university’s approach is the University of Birmingham School (UBS).

Newman University runs activities including learning days for local schoolchildren, residential events through the AimHigher Uni fest and off campus enrichment activities. The university is also distinctive for the focus it places on developing links with local schools in order to support better attainment in schools. This support includes prioritising student placements in schools and Newman Health & Wellbeing. Newman attracts a considerably higher proportion of students from deprived groups than average in English HE providers (Newman University, 2021). Through placements in schools, they hope that students can as role models and raise aspirations. Newman Health & Wellbeing was established in 2016. It aims to offer services aimed at improving the health and wellbeing of individuals within schools, colleges, the local community, and workplaces across the West Midlands.

Wolverhampton University has developed a differentiated skills response based on skills needs within different local areas. The University’s first [Regional Learning Centre](#), University Centre Telford was a strategic response designed to address low skills levels and aspirations in the locality by supporting progression into HE and higher skills. Birmingham City University have also developed a **placed-based approach** to widening participation. The university opened an [IntoUniversity Hub](#) in March 2019: a £1.2 million education hub in the north of Birmingham, aimed at supporting more young people into HE. BCU perceive widening participation not just in terms of recruiting students from a range of backgrounds but in terms of developing the reputation of the university through giving back to the community: “There’s an inherent responsibility there to be working about if we’re developing and encouraging access from communities, especially what are we putting back into them. Because if we don’t have that wider connection to the community, they’ll get their degree go back in and they’ll think it’s been a pointless exercise, they won’t see the benefits on that wider level”. Coventry University have established [CU Coventry](#), which aims to make HE accessible to more people through **flexible study options**. Coventry University has set up and sponsors the [Better Futures Multi-Academy Trust](#) (Better Futures MAT). The Trust Strategic Plan includes the aim of “(giving) students access to work experience, valuable advice and guidance from experts and industry related experiences that help them make informed decisions on their future pathway into higher education and employment” (Better Futures MAT, 2019).

University College Birmingham runs a [range outreach activities](#) with local schools and colleges. These include ‘Have a Go’ sessions (which enable students to find out more about vocational college courses through practical sessions such as Young Waiters Morning for Year 10 students), masterclasses (which provide students with an interactive taster of UCB’s degree courses), careers fairs and presentations in schools and colleges and the Aspire Vocations Tutor Support programme. The Aspire Tutor Support programme enables college or sixth form staff teaching vocational subjects to draw on the expertise of UCB’s lecturers to enhance their students’ experience. Support can include staff “providing

information on the current climate of a particular industry, supporting students who are looking to progress to university” tours of UCB’s facilities and guest lecturing (UCB, no date given). UCB’s [Vocational Advantage programme](#) involves UCB working in partnership with other local Colleges and Academies to encourage progression and promote pathways to higher education.

There is also evidence that some universities are adapting their systems to provide **specific skills support for disadvantaged individuals whose education has been disrupted** by closure of schools and colleges during the pandemic. Birmingham City University are looking to add an additional level (platinum) to their existing employability award, Graduate Plus. More courses are making the award mandatory or embedded to start the skills journey earlier when people are at university. Also BCU are collecting data on registration to identify careers support needs as part of Careers Registration. In the 2020 academic year, they are also triangulating the data with data on the Index of Multiple Deprivation, and target area data to identify students most in need of careers guidance and skills support.

## 2. Developing sectoral skills of the future

Universities in the West Midlands have established a range of **programmes and institutes to support up-skilling and re-skilling across specific sectors important regionally**, of which five are profiled here: Advanced Manufacturing, Cyber, Healthcare, Sustainability and Climate Change, and Digital Skills. Selected projects/initiatives are profiled below.

**Advanced manufacturing** refers to production processes reliant on cutting-edge science and technology research. It encompasses “the development of manufacturing techniques for specific new technologies, such as plastic electronics and composites. It also includes generic high-tech processes, such as automation and robotics, which can give a range of products a competitive advantage in terms of cost or environmental impact”. ‘Advanced’ describes the manufacturing process as opposed to the product (Houses of Parliament, 2012). Advanced Manufacturing is a key sector within the West Midlands, accounting for 5.8% of firms in the West Midlands Combined Authority (WMCA) 3-LEP area in 2020 compared to 4.2% of firms nationally (Inter Departmental Business Register, 2020). It is one of only six sectors in the West Midlands with an above-WMCA average GVA per employee (West Midlands Combined Authority, 2018). Nationally, up-skilling the UK workforce to “deploy and exploit new technologies” is crucial to addressing declines at national level in terms of the overall contribution of manufacturing to the UK economy, the number of people employed in the sector and the proportion of manufactured goods exported are declining in absolute terms and in relation to the performance of competitor nations (High Value Manufacturing Catapult, 2020; Make UK (in partnership with BDO LLP). As new technology is introduced and processes are increasingly automated, manufacturers increasingly demand an agile workforce with stronger higher-level and technical skills (High Value Manufacturing Catapult, 2020). In particular, digital techniques, computing, analytical thinking, machine ergonomics and manufacturing methodologies skills are likely to be increasingly required (European Commission, 2014).

Universities and colleges within the West Midlands have responded to these changes in skills needs by establishing several manufacturing and engineering hubs.

- For over forty years, [WMG](#) (formerly Warwick Manufacturing Group) at the University of Warwick has driven innovation in science, technology and engineering. An “international role model for how universities and business can successfully work together”, it includes a number

of centres of excellence such as the International Manufacturing Centre, the National Automotive Innovation Centre and the Advanced Steels Research Centre. An example of the development of close industry-business relationships, WMG emphasises the education function of universities in skills development relevant to the translation of research into regional business innovation.

- The University of Birmingham has established an [Advanced Manufacturing Technology Centre](#) and co-founded the [Manufacturing Technology Centre](#) (MTC) in 2010 with the aim of bridging the gap between academia and industry. Coventry University are collaborating with Unipart Manufacturing to operate the [Institute for Advanced Manufacturing and Engineering](#) (AME). Key goals of the Institute include training industry-ready, world class engineering graduates and accelerating next generation powertrain-related technologies for the automotive, aerospace, oil and gas, rail and renewables sectors.
- The [Birmingham Centre for Railway Research and Education](#) at the University of Birmingham collaborates with industry and academia to drive UK and global rail innovation. The focus of the Centre ranges from training engineers to developing world-leading technologies.
- The University of Wolverhampton and Dudley College collaborate on the [Elite Centre for Manufacturing Skills](#) (ECMS), an employer-led training facility located in the Black Country, designed to up-skill and multi-skill the workforce. It focuses on developing technical skills and knowledge in the engineering, manufacturing, casting and metal forming sectors.
- FE and HE institutions within the West Midlands are also supporting skills development within the sector through the [Black Country & Marches](#) and the [Greater Birmingham and Solihull](#) Institutes of Technology.

**Cyber:** The National Cyber Security Strategy 2016-2021 defines cyber security as “the protection of internet connected systems (to include hardware, software and associated infrastructure), the data on them, and the services they provide, from unauthorised access, harm or misuse. This includes harm caused intentionally by the operator of the system, or accidentally, as a result of failing to follow security procedures or being manipulated into doing so” (HM Government, 2016). The sector is growing rapidly in the UK with the number of active firms increasing by 44% between 2017 and 2019. Worth approximately £8.3bn, total revenues in the sector increased by 46% over the same period (Donaldson et al, 2020). Recent research has emphasised how a basic technical cyber security skills gap already exists in the UK. A recent survey of 1,030 firms by IPSOS MORI found 54% of businesses are not confident in carrying out one or more basic cyber security task. Such tasks include detecting and removing malware, storing or transferring personal data in a secure way and setting up configured firewalls. “Sizable” higher-level technical skills gaps (for example, in relation to penetration testing, forensic analysis and user monitoring) also exist. Among firms in the survey that stated it was important for them to have high-level skills in house, 31% reported a high-level technical skills gap (indicating they lacked confidence to do one or more of six high-level tasks in-house). Developing cyber skills linked to growth in the use of artificial intelligence and AI are important for development of the sector (Pedley et al, 2018). The Initial National Cyber Security Skills Strategy identifies further and higher education programmes as being “crucial platforms for converting talent into cyber security jobs” (HM Government, 2019).

- Both Aston and Wolverhampton Universities have expanded teaching of cyber skills.
- Wolverhampton runs the Cyber Research Institute (WCRI) based at the University of Wolverhampton city campus and the Hereford Centre for Cyber Security (HCCS), which is due to open later this year. The WCRI offers a wide range of cyber security training including hands-



on training and MSc short courses. Funded through £9 million of investment funding from the University of Wolverhampton, Herefordshire Council, the Marches LEP and the European Regional Development Fund (ERDF), the Centre for Cyber Security will encourage collaboration and technology transfer between businesses and academics.

- University College Birmingham is supporting the development of computer science skills in the region through the recent launch of its [Access to Higher Education Diploma in Computer Science](#). The 3-4 day a week course, which is equivalent to two A-levels, explores a range of areas in the field of information technology (IT), including programming and mathematics, web design, networking, cyber security, databases and systems. The course opens up the path to studying computer science at degree level.

**Healthcare:** Healthcare subsumes both the health and social care sectors and encompasses a wide range of occupations (including doctors, nurses, allied professions and care workers). Increasingly, it involves the use of technologies and data to deliver more personalised provision and prevention. The House of Commons Library has emphasised how shortages of healthcare workers currently exist in the UK and how these are predicted to increase over future years. Providers across NHS England have reported shortages of over 100,000 full-time equivalent (FTE) staff. In addition, there are an estimated 122,000 vacancies in the adult social care sector (Macdonald, 2020). Health and social work activities have a consistently high rate of vacancies relative to other sectors (Office for National Statistics, 2021). Skills shortages are particularly worrying in nursing. Analysis undertaken by the King's Fund (2018) predicts that the NHS workforce gap in England will rise to almost 250,000 by 2030.

- The West Midlands Combined Universities are crucial to addressing skills gaps in nursing given that they train 90% of nurses within the West Midlands. The planned opening in 2021 of a £5million centre for health and social care training at the University of Wolverhampton's Telford Campus is designed to support efforts to ensure students have the skills and knowledge required by employers. The [Marches Centre of Excellence in Health, Allied Health and Social Care](#) will create new skills and simulation facilities to be used across health and social care disciplines.
- The University of Birmingham is partnering with investor-developers Bruntwood SciTech to establish the [Birmingham Health Innovation Campus](#), a ten-acre site due to open in 2022. It is attracting further inward investment to complement the University's R&D strengths in the areas of translational and precision medicine. In addition to building a growing number specialist skills and jobs, the campus is designed to benefit the region through providing access to advanced healthcare.
- Training opportunities for nurses, paramedics, midwives and other health professionals in the region are supported through the recent opening of a [new £59 million building for the Faculty of Health and Life Sciences at Coventry University](#). The building includes new healthcare simulation, research and 'super-lab' environments.
- University College Birmingham is adapting to regional needs through [new nursing and physiotherapy degree programmes](#). Students on the programmes develop their skills within UCB's new health simulation facilities.
- Medical engineering and healthcare is one of three sectors that the [Black Country & Marches Institute of Technology](#) offers courses in. The courses are designed to offer clear pathways to skilled jobs in each of the sectors.

**Digital:** The digital economy refers to “e-commerce / e-business (the trading of goods or services over computer networks such as the internet)” and “supporting infrastructure (that is, hardware, software, telecoms)” (Gough, 2015). The digital sector contributed £149 billion to the UK economy in 2018, accounting for 7.7% of the total UK economy. The sector is growing rapidly; reporting growth in 2018 nearly six times larger than growth across the UK economy as a whole (DCMS and Matt Warman MP, 2020). General digital skills comprise “essential digital skills and the skills linked to the use of applications in the workplace”. Minimum requirements in relation to processing information can be identified across all sectors (Kispeter, 2018). Such skills are required in a “wide range of occupations” (Curtarelli et al., 2017). In addition, some roles require specialised digital skills and knowledge such as creating presentations. Future demand for digital skills is likely to relate to greater need for interpersonal skills and cognitive competencies and learning strategies. Kispeter (2018) argues that “occupations where workers use digital skills creatively and to solve problems are likely to grow, while occupation where digital skills are used for routine tasks are likely to decline”.

- **The Institute of Coding at Aston University** is a good example of the university’s strategic direction in terms of skills. In Phase 1, Aston are leading on work aimed at enhancing the Digital Workforce. The project aim is to create a new industry-facing market of HEI-led, industry-valued provision in areas of strategic importance. Aston are hoping to gain more government funding to support digital up-skilling work.
- **The Office for Students Institute of Coding** initiative also includes Coventry University. The university is leading on creating a new industry-facing market of HEI-led, industry-valued provision in areas of strategic importance.
- **Coventry University is home to the [Simulation Centre](#)**, an advanced interactive people and training development centre. It boasts bespoke programmes and cutting-edge technology supporting companies and organisations across a range of sectors to train and develop their staff.
- **More broadly, Coventry University is investing £30 million in redeveloping their Faculty of Arts and Humanities buildings as part of the University’s civic engagement.** The project aims to stimulate new pedagogies for cross-disciplinary working in the fields of architecture, interior design, automotive design, performing arts and media. The plans have been designed to enable the buildings to showcase the arts and engage with enterprise and the community, supporting the university to influence the cultural plans of the city.
- **The WMCU universities are supporting professions they are strong in to adapt to future skills needs** (e.g. agrifood, AI, future of healthcare, big data, digital skills).

**Sustainability and Climate Change:** The low carbon economy is composed of the following low carbon sectors: offshore wind, onshore wind, solar photovoltaic, hydropower, other renewable energy, bioenergy, alternative fuels, renewable heat, renewable combined heat and power, energy efficient lighting, energy efficient products, energy monitoring, saving or control systems, low carbon financial and advisory services, low emission vehicles and infrastructure, carbon capture and storage, nuclear power, fuel cells and energy storage systems (Office for National Statistics, 2017). In 2018, active businesses in the low carbon and renewable energy economy (LCREE) in the UK generated £46.7 billion in turnover. Employment was estimated to be 224,800 full-time equivalent posts, a 12% increase compared to 2015. Ecuity Consulting in collaboration with the Local Government have published analysis of projected net zero jobs and the associated skills demands across England by 2030 and 2050.

The research argues that key sub-sectors (namely the heat pump supply chain, the nuclear sector and professional services) will require “additional intervention from industry, local government, central Government and/or the country’s education institutions to ensure that the work force is sufficiently well resourced to deliver on emerging demand”. It suggests that other sub-sectors are likely to face “unique challenges in the long-term” but that the specifics of these challenges are not very clear as yet. The report also notes the importance of “ongoing analysis to assess industry specific challenges associated with skills and employment” to enable supply chains to overcome challenges relates to the impact of automation and new technologies on the sector (Ecuity, 2020).

Various universities and colleges are supporting green growth including training students in the associated skills required. For example:

- Midlands Innovation are working with the Midlands Engine to develop their green growth policy.
- The University of Birmingham has invested in establishing the [Tyseley Energy Park](#), which aims to pioneer new sustainable energy solutions in transport, electricity, and heating. UoB are building an innovation hub on the site to enable businesses to develop their technology in collaboration with university staff. The hub will act as a centre for training associated with state-of-the-art energy, waste and low-carbon transport systems.
- Coventry University is developing opportunities around low carbon transport and clean air. The £50m [Centre for Advanced Low Carbon Propulsion Systems](#) (C-ALPS) is a research centre, founded to collaborate with the propulsion system supply chain in order to accelerate progress with regard to carbon-zero transport.
- In 2018, WMG joined the [UK Battery Industrialisation Centre](#) collaboration, which provides hands on training in battery manufacturing in the UK across the skills levels.
- The [Centre for Agroecology, Water and Resilience at Coventry University](#) is conducting innovative, transdisciplinary research on the understanding and development of resilient food and water systems internationally.
- The [Black Country & Marches Institute of Technology](#) offers courses in modern methods of construction and offsite. The courses are designed to offer clear pathways to skilled within the sector.

**Interdisciplinary: One way of supporting local/regional growth is through promoting innovation:**

- **BCU support interdisciplinary skills development through the [STEAMhouse](#), an innovation centre in Birmingham City Centre, aimed at encouraging the collaboration of the arts, science, technology, engineering and maths (STEAM). It creates interdisciplinary partnerships to drive research and open partnerships for innovation. The centre **supports businesses, start-ups and sole-traders to develop new ideas, skills, products and services.****
- **The [National Transport Design Centre](#) at Coventry University is responding to rapid evolution in the mobility sector by taking a cross-disciplinary approach to exploring the future of transport. It aims to identify novel applications for both new and existing technologies.**



### 3. Higher-level applied skills development initiatives

Skills development initiatives in Midlands Innovation universities have focused on higher-level skills such as doctoral development programmes and the £4.99million TALENT programme to develop skills among HE technicians. Midlands Innovation have chosen to focus on skills issues which can be best addressed through improving research efficiency and collaboration due to the small size of their team and the focus of universities in the partnership. Universities in the Midlands have also introduced higher-level apprenticeship programmes and established incubators and accelerators. For example, the University of Warwick has established the Creative Futures Accelerator Programme in Leamington Spa's Creative District whilst the University of Birmingham has founded the Birmingham Research Park, which provides "secure, high quality office space, conference facilities and virtual tenancies, in a community of research-led companies" (Birmingham Research Park, no date given). In addition to physical support in the form of state-of-the-art offices and meeting spaces, businesses benefit from collaborations networks. Collaboration is important for human capital development in firms. For example, a 2017 review by the CIPD emphasises "the vital role social capital plays at both the individual and organisational level in terms of creating value and stimulating new knowledge and innovation" (McCracken et al, 2017). Co-working spaces have also been found to boost entrepreneurship in creative communities, contributing to stimulated knowledge creation and open innovation (Bednář and Danko, 2020).

Universities are also developing higher-level applied skills through offering higher-level apprenticeship programmes. For example, WMG offers technician apprenticeship programmes and runs an Academy for Young Engineers. UoB has established a multi-programme framework agreement with Birmingham City Council to deliver Degree Apprenticeships across a range of disciplines. This supports efforts to address skills gaps and future-proof the Council's workforce. It includes Education, Public Management, Health and Care System Leadership as well as Executive MBAs. UoB was the [first higher education institution](#) to sign up to the Apprenticeship Levy Transfer Fund, run by the West Midlands Combined Authority. The fund aims to use unspent Apprenticeship Levy in large employers, to support apprenticeships in small and medium enterprises (SMEs) in the region. Coventry University strongly engages in Degree Apprenticeships through [Better Futures Multi-Academy Trust \(MAT\)](#). The MAT aims to become a national hub for excellence in 16-19 education. Building on their strengths as both a higher education and Further Education provider, [University College Birmingham offers level 2 \(intermediate\) to level 6 \(degree apprenticeship\) apprenticeships](#). In response to the focus of regional economic development strategies, the university is looking to diversify its apprenticeship offer from its traditional focus on hospitality, food and tourism by offering new courses in nursing, and business incorporating computer science and digital. A key part of the role of the Apprenticeship Team at UCB (which is applicable to universities more widely) is working with employers to help them to understand how the skills system operates and the support available to firms in terms of how apprenticeships can respond to their workforce development needs.

**Collaborating with other HE institutions on funding bids enables some Russell Group universities to meet Office for Students (OFS) funding requirements for tackling disadvantage and try out different approaches.** Whilst Russell Group universities attract students from diverse backgrounds, other local universities have a more disadvantaged intake overall. "OFS, like to see collaboration, and like to see, disadvantage being tackled. So I think, as a Russell Group, [...] we could be perceived as not really having those issues within our university, even though we do. But I think teaming up with universities that, [...] are almost certainly likely to be completely local, very, very diverse. [...] I think it brings advantages in terms of being able to try out some of these projects".

#### 4. Graduate Support

**A growing focus for universities in Birmingham is establishing graduate-focused careers guidance. This includes both careers guidance as well as specialist support for graduate entrepreneurs. The link between education, research and the skills needed for translation into local business innovation is a key issue. Provision of such support is one way universities can seek to improve how academic skills are integrated into local innovation ecosystems.**

**Newman University has recently made placements a compulsory part of their full-time three and four-year degree programmes in order to support graduates to gain work experience valued by employers. Many students also share their experiences in schools, so helping to inspire students in their local community. Aston University also has a strong history of supporting employer placements. In response to how the pandemic is creating a number of issues for graduates as companies have made redundancies, frozen recruitment and reduced graduate outreach work (Office for Students, 2020), universities are developing careers guidance. The pandemic has led the careers team at UoB to focus to a greater extent than previously on supporting graduates in 2020 and 2021. UoB have created a campaign to support 2020 graduates.** This has included sending out newsletters, creating virtual events to give students insights into different sectors (e.g. Insight into Healthcare, Marketing, blogs). The InsightInto days have been organised in conjunction with employers. Increased support for graduates is being **driven by concerns about the uncertain labour market** they were graduating into and the impact of reduced opportunities to gain work experience, which potentially means students graduating this year will be even more disadvantaged than students graduating in 2020.

**BCU have accelerated plans to establish a dedicated graduate-careers service in response to challenges graduates are currently facing finding employment.** BCU and Aston were already collaborating on several graduate placement and support programmes. These include the Higher Level Skills Match (HLSM) programme and a project with Department for Work and Pensions (DWP). HLSM gives students access to business and graduate talent. The DWP projects involves DWP referring graduates on the Universal Credit register back to BCU/ Aston for tailored graduate-focused employment support. Whilst designed pre-pandemic –the project took three years to develop and received funding just as the pandemic hit – the approach is “paying dividends” in the context of the challenges graduates face in the current uncertain labour market. The specialised support enables graduates to more easily enter higher-level employment, thus not being forced to take non-graduate jobs, which in turn creates additional competition for lower-skilled roles. As one interviewee explained “by not using our high level talent, if they are then pushed into entry level jobs, you are then shortly reducing the pool of entry level jobs”. The support is also designed to enable Jobcentre Plus advisors to focus on providing support to other groups who are out of work. The project emphasises how **strong partnerships can require considerable time and effort to be successfully established.** Some disconnect between the focus of universities on higher-level skills development and the focus of the WMCA remit around FE was identified during the interviews. However, the interviewees suggest that partnership working around graduate support has been strengthened over recent months.

**Coventry University have established PeoplesFuture,** which incorporates the Talent Team at Coventry University. It provides students with a new type of professional careers support throughout their journey at Coventry University. Aiming to guide students towards a successful graduate life, and also to serve their individual needs and aspirations, it provides careers support, from enrolment, to

graduation and beyond. The Talent Team bring all activities related to support, career development and advice, employer engagement, and core skills development together into one central unit.

**The Hired Team at University College Birmingham** who provide careers, employability and placements support for students and alumni, have trialled new forms of learning during the pandemic. This has included **project based learning and virtual projects**.

As a result of concerns that graduate employment may rise further over the coming year as the furlough scheme is due to end and businesses face increased uncertainty, **the five universities in Birmingham are collaborating to develop projects to support graduates as national unemployment support focuses on the Kickstart scheme**. At the time of writing, the universities had developed plans for a pilot project to address gaps around graduate employment and were seeking financial support. Successfully recruiting graduates to internship programmes was described as important since it can help universities to achieve their KPIs for graduate employability.

Some universities appear to place greater emphasis **on working with local employers to create employment opportunities for graduates**. For example, at BCU the role of the university is perceived in terms of a responsibility to develop and encourage access to HE through community development, raising demand for graduate skills among local businesses and enabling students to facilitate community development through volunteering. **Volunteering opportunities** are designed to enable students to draw on their insight into their communities as part of their degrees. The model aims to create a virtuous circle where the university responds to local community and business needs and then provides students with the skills to respond to these needs. Whilst BCU have some links with large employers, they focus on working with SMEs as they represent the majority of employers in the West Midlands. The University of Birmingham is contributing to a £920,000 project led by Keele University, which aims to develop innovative approaches to **student-led knowledge exchange**, and to increase engagement in knowledge exchange activities for students from disadvantaged communities. It will develop best practice and expertise in the delivery of knowledge exchange through initiatives including civic internships, student consultancies, virtual placements, opportunities for international students to get regional or local work experience, enterprise challenges, and curriculum design that embeds student knowledge exchange. The project will also create an evaluative framework tool to analyse the impact of student-led knowledge exchanges. Russell Group universities felt that they can play a civic role through providing students from disadvantaged backgrounds with more opportunities to interact with large employers than those available at other smaller, local universities.

**Careers guidance also includes support for graduate entrepreneurs**. The University of Birmingham has launched UoB Elevate an Incubator and Business Growth Programme. Based at 'The Exchange' in Birmingham City Centre, the programme is designed to support University of Birmingham student and graduate entrepreneurs to grow their businesses. Skills-focused support will include access to an alumni-mentoring scheme, access to regional business support schemes and access to funding schemes and investor networks. Early applications for the first cohort in September 2021 are now open. The Exchange is important in relation to developing an entrepreneurial ecosystem. "Once we can get our student graduate businesses set up in there, these kind of entrepreneurial ecosystems that we can tap into, give us opportunities to build networks to seek investment for those businesses. [...] eventually those businesses will be hiring people".

## 5. Working with regional governance stakeholders

University **collaboration with regional stakeholders exists at both institutional and individual level.**

- WMREDI is working with the WMCA and the Black Country Consortium Economic Intelligence Unit on skills and economic analysis.
- Representatives from universities across the West Midlands also sit on LEP Boards, LEP Employment and Skills Boards and Business and Engagement Groups.
- Wolverhampton University is working with the Combined Authority to develop Skills Profiles going forward.
- **Skills intelligence from universities and colleges is being used to support funding asks of national and regional government.** For example, the West Midlands Combined Universities have developed a Training Framework for the Combined Authority so they can request funds from government and commission training providers. The Colleges West Midlands Partnership has worked collaboratively to produce a prospectus for capital investment in further education colleges in the West Midlands. This has been used to highlight FE investment priorities to government. It has also been particularly useful during the pandemic by giving a consistent message to students and creating bespoke programs for adults. While each FE College produces their own dashboards, using the combined prospectus means they can show the outputs of colleges as a whole and how success can be measured moving forward in the West Midlands.

**Challenges can exist for universities and colleges when their traditional course offer does not align directly with regional sectoral priorities. However, wider events can underscore the need for a broad range of skills within the regional economy.** For example, University College Birmingham has grown out of an FE College focusing on hospitality. Hospitality is not a core sector for the WMCA. However, visitor economy skills developed are well placed in terms of contributing to successful delivery of the Commonwealth Games which will be held in Birmingham in 2022.

## 6. New forms of Learning

The interviews provide insight into **existing forms of learning being developed across the West Midlands.** There has been a medium-long-term development of CPD and micro-credentials at UoB. Wolverhampton University is developing a long-term integrated package of skills and progression opportunities, each of which is made up of multiple packages built on partnership working. Wolverhampton are also develop specialist skills in cyber teaching. Coventry University has also prioritised developing strengths in educational technology. In April 2020, it moved its courses onto the digital Learning Experience Platform Aula, with the aim of “lowering barriers to communication between academics and students seeking to deliver a substantial increase in student engagement” (Coventry University, 2020). Coventry University has also launched a range of 100% online degrees at undergraduate and especially, masters degree level. Dudley College consider that the move to online learning during the pandemic has “accelerated understanding of what works for blended learning” and also enabled the College to develop a large bank of online learning materials. This process has led to greater understanding regarding which parts of which courses are better delivered online and which face-to-face. It has emphasised how ultimately some courses need face-to-face teaching and learning. However, there are some courses or parts of courses that can be delivered just as effectively online. In response to high levels of redundancies locally at the start of the pandemic, Colleges West Midlands collectively launched new short retraining courses for adults. Through the [Reignite Your Future](#)

[Regional Skills Recovery Programme](#), FE Colleges in the West Midlands have joined together to develop short sector-based work academy programmes. The free courses, which usually last up to six weeks, are funded by the West Midlands Combined Authority as part of a partnership that involves the National Careers Service, the DWP and Jobcentre Plus. Courses are available in a range of sectors including Business & Professional, Construction, Digital, Health and Care, and Engineering/Manufacturing. Dudley College reported high uptake of the courses and suggested the experience has accelerated a move from yearlong programmes to shorter courses. They had success with hundreds of people going through re-skilling short online courses to retrain in a job after losing their previous jobs or having concerns regarding the stability of their current job.

## 7. Developing linkages between FE and HE

All universities interviewed have **worked with FE institutions either previously or at present to support up-skilling.**

**University College Birmingham is distinctive in being a university as well as an FE provider. It was originally an FE provider and after becoming a University retained FE provision.** In 2017 [UCB established a partnership with the University of Birmingham](#) to develop innovative education and training pathways.” The partnership – which offers a new model for how the HE and FE sectors can work together to improve outcomes for young people – establishes a range of joint activities, including:

- degree apprenticeships,
- further enhancing student opportunities to access HE,
- academic teaching staff training and development,
- creating a better Birmingham student experience by sharing facilities,
- helping international students to access education opportunities in Birmingham.

One of the most recent forms of collaboration is on **Institutes of Technology (IoTs)**. IoTs have been established in Greater Birmingham and Solihull (GBS) and the Black Country. The GBS IOT is discussed in more detail in the Examples of Good Practice section below.

The interviews with FE colleges indicate **enthusiasm among FE colleges for forming collaborations with HE on IoTs**. The benefits in their opinion are that they **build pathways to support people moving between FE and HE or combine the two**. However, they prefer this partnership to be **led by their board of employers** to set out priorities and needs for different courses that are strongly relevant to employer skills needs.

The interviews suggest that more **modern universities have longer standing partnerships with FE than Russell Group universities**. They perceive the **benefits of working in partnership with FE to respond to the needs of regional employers and stakeholders and sharing innovation in teaching and learning**. One university interviewed argued that “I do think there are challenges for FE in terms of say innovation in teaching and learning. I think HE has gone through a lot of that and gone through a lot of experience – so [there is a need to] share knowledge and insight”. Wolverhampton University has a dedicated unit to support and build relationships with FE as well as expanding their relationships with private training providers. The aim is to provide complementary provision with clear progression pathways linked to employer need and regional need. The university works in conjunction with FE to such an extent that they are unlikely to go into a venture without an FE partner. Coventry University engage with colleges principally through their Multi Academy Trust. CU Coventry supports transitions between FE and HE by offering a range of vocational courses taught in a progressive and flexible way.

Russell Group universities have less experience of working with FE and both Russell Group representatives and representatives from FE colleges suggested **it is important that FE and HE should not move entirely into each other’s space**. One interviewee from a Russell Group university suggested their university is “quite careful” regarding developing links with FE as if they attempt to take on too much of the traditional role of FE, they could negatively impact on existing systems. “I think [...] there’s a slight danger that in trying to work together, we just end up making things worse, almost, because I think that the funding situation is so critical for FE that there is a bit of a danger that almost we step into their space and take over what they probably normally would have done”. An interviewee from

a large college argued that colleges “need to be careful” that universities do not try to “push colleges out of degree apprenticeships now in the marketplace” – and that universities have different understandings of apprenticeships. The interviewee added that “in the main colleges have been doing apprenticeships for years and part of what they're doing and doing fairly well”. They suggested that issues around HE institutions ‘overstepping’ into core FE activities was “a bigger issue when universities first started to be interested in offering apprenticeships” but “seems to have calmed down a bit now”.

**Where Russell Group universities have established partnerships with FE, such partnerships are designed to facilitate existing university research and teaching goals.** UoB recently completed an agreement to incorporate the [National College of Advanced Transport & Infrastructure \(NCATI\)](#) into UoB. With the [Birmingham Centre for Railway Research and Education](#) (BCRRE), this forms part of a strategic goal to help the region to become the leading centre for rail infrastructure skills and to support a national innovation network. Skills training will be delivered through “colleges and others connecting up through a sort of hierarchy of skills provision, and bringing in top class universities into that”. UoB sees the benefits of developing skills pathways in terms of helping the **university to recruit the top students; helping to create a critical mass of adopters and users of research and technology, and providing economies of scale in delivery.**



## HOW CAN PARTNERSHIPS BETWEEN UNIVERSITIES AND OTHER STAKEHOLDERS SUPPORT RE-SKILLING?

Partnerships between different institutions are **driven by shared goals and desired outcomes**. While different institutions might seek greater collaboration, there is a certain level of competitiveness especially between institutions in HE. Participating in partnerships requires a high level of commitment. Partnerships involve **considerable time and effort to be successful**. Building on previous collaborations and longer-term partnerships was suggested in the interviews to be vital if up-skilling and re-skilling needs in the region are to be met. The research identified many examples of good practice, as well as challenges to partnership working and opportunities to expand partnerships in future.

### Examples of Good Practice

The Employability and Skills Board, which is run by GBS LEP, has facilitated useful collaboration in terms of skills particularly between BCU and Aston. The success of the Board was linked to strong recognition of the skills of each member organisation and Board's more defined focus around HE.

Aston and BCU collaborate on skills projects along with Solihull College funded by the European Social Fund (ESF), namely Step Up and Higher Level Skills Match (HLSM). HLSM gives business access to student and graduate talent and Step Up is a graduate placement programme around skills development for beneficiaries. BCU are also working with the other four universities in Birmingham to develop a kick-start scheme to support graduates and were seeking (at the time of writing) financial support to work in this space. The projects build on concerns that if high-level talent is not supported into graduate level jobs, they will take entry level jobs, creating knock on effects in the labour market. Currently, more than 800 graduates in Birmingham are on the Universal Credit register. One partner university explained the **benefits they saw in collaborating in terms of addressing local skills needs and supporting graduates to achieve their employment goals**. "There is "a real sense of we're all in it together, we're all trying to do the same things. We're all trying to support students and graduates, they all need work, they all need to contribute to the economy and the local area. So why not all work together on it?".

The West Midlands has several **good examples of how HE and FE can collaborate successfully**.

- **Greater Birmingham and Solihull Institute of Technology (IoT)** is funded by the Department for Education (DFE) but the idea and partnerships stemmed from a LEP Employability and Skills Board. The IoT is unique as it involves multiple colleges and universities whereas most just involve a single HE and a single FE institution, which enables support to be more joined up. Interviewees stressed the advantages this offers in terms of enabling support to be more joined up for the benefits of employers and students. "I think building better relationships between FE and is really, really healthy thing to do. So, for example, if universities are talking to businesses that want to upskill at levels 2-5, we should really refer them to a local college partner for support if it's something universities cannot offer".
- **WCG work with HE in various ways**. Coventry University validates their land-based degree programmes e.g. equine nursing, animal therapy. These honours degree programmes are delivered by WCG. The partnership was established before WCG had degree awarding powers but has been so successful that it has continued since they gained these powers. Through the collaboration, WCG gained experience of developing their own regulations, which helped them to gain the gain required to validate their own expertise. **WCG has also worked with**

**Warwick University to deliver a six-year degree trailblazer apprenticeship designed to meet the needs of Jaguar Land Rover. WCG are responsible for level 4 and 5 training and Warwick deliver the level 6 training in the programme.** It is “a good example of how if a college and university come together to give an employer what they need, it can be done”.

The University of Wolverhampton has worked with the Black Country Consortium through their Employment and Skills Board to develop a response to medium term skills issues as well as an immediate short-term digital skills initiative. The medium term skills issues focused on increasing social mobility and the supply of apprenticeships.

The new [Springfield Campus](#) is another example of successful collaboration central to the University of Wolverhampton’s £250 million investment plans to enhance the student experience and regenerate the region’s economy. The flagship project is developing the city’s iconic former Springfield Brewery site as a key element of the Midlands Engine. The Elite Centre for Manufacturing Skills, approved by the Black Country LEP, will deliver apprenticeships and training in areas identified as current barriers to growth in the region and high value manufacturing sector.

Furthermore, **collaborations and partnership between industry and academia are helping to identify skills that graduates will require to work in local industry to “bounce back” in 2021.** “All new recruits, including graduates will need to be able to integrate seamlessly and quickly into the organisation and have the capabilities necessary to help the businesses thrive and their own careers progress” (Parr, 2021). One way in which the University of Warwick is partnering to develop such skills among its graduates is through working with employers as part of its Degree Apprenticeship programmes. The University of Wolverhampton has responded to firm needs by creating two-year degrees in conjunction with firms.

## Opportunities

Interviewees identified several opportunities for universities to expand partnership working with different local and regional stakeholders to support up-skilling and re-skilling of students, graduates and employees within the West Midlands.

Universities have a role in **working with local and regional stakeholders to provide insight into and analysis of skills needs in local areas.** This is important for enabling strategy development to respond to local needs. Greater HE-HE collaboration enables stronger bids to be submitted to attract R&D funding into the region. In turn, this could help to improve sectors, employability, and the R&D asset base in the region. Another opportunity is for universities to design partnership provision between HE, FE, local and regional stakeholders and employers to respond to employment needs. This role can be further facilitated by the WMCA in ‘joining up’ different types of provision for these different types of institutions.

**Working in conjunction with academics and employers to embed employability skills into curriculum offers opportunities to reach more students and make careers support more sustainable.** One interviewee from a university careers team described the potential to expand on current activities, but that these were time-consuming to do well. “We run some absolutely brilliant activities, we’re bringing employers in and students will spend a week working on a problem. Brilliant, they have an absolutely amazing time, but it’s 30 of them. Or, you know, we will, at tops, we run a few that run over

a weekend, and you might get 100, which is great. But in the grand scheme of numbers, it's still tiny. You know, and those sorts of things take a team months to plan and deliver”.

In addition, the re-skilling agenda and the need for people to pivot to different sectors, as well as potential increased government emphasis on FE, may increase pressure on universities to **develop shorter courses** to help people to develop new skills. The research stressed the importance of bite-sized learning being accredited in order that individuals can “build up and progress along” skills pathways. “Ideally, you would, you would want an individual to be able to take bits of courses from different providers to build up to recognised qualifications and move between vocational training and more traditional learning as well”. The **Midlands Engine Skills Group has developed a plan for the skills escalator**, a new collaborative approach to overcome skills gaps and labour shortages that are constraining growth and productivity in key Midlands’ employment sectors. The model is built around **close collaboration between employers, higher and further education providers**. It is designed to link previously distinct vocational and academic trajectories thus helping to **overcome embedded sectoral divisions** in order to provide a **more responsive skills system** that creates opportunity for all. There are three principles behind the co-design, co-creation and co-delivery: **flexible pathway mapping, new curriculum commissioning and accreditation, and collaborative skills clusters**.

Existing initiatives could be expanded to support higher-level skills through regional investment, R&D and innovation activities. For example, the University of Birmingham’s recent investment in an energy centre in Tyseley and the Manufacturing Technology Centre (MTC) as well as the evolving Birmingham Health Innovation Campus (BHIC). BHIC offers considerable opportunities to upskill students, graduates and existing employees in the low carbon and advanced manufacturing sectors. The presence of University Hospitals Birmingham, one of the biggest hospitals in Europe, adjacent to the main University of Birmingham campus opens up future opportunities linked to health, social care and mental health.

**There are also opportunities for universities to collaborate as anchored civic universities to develop their role as employers and training providers in city-regions.** A key challenge is not only activating this anchor role but developing a positive perception of universities within communities of interest as large scale employers. There is a challenge in changing the perception of universities as only teaching and research hubs when a range of other job roles and career pathways are available.

**Opportunities for partnership working build on new Government initiatives.** The **Lifetime Skills Guarantee highlights the essential role of the college sector in economic recovery** and equipping people for it. For example, **WCG feel quite well prepared to implement the new initiatives coming given their experience participating in the Trailblazers, being a T level provider and having degree awarding powers**. Already 25% of the College’s provision involves apprenticeships and 75% of these apprenticeships are at level 3. A key challenge, which is also an opportunity, relates **to raising awareness and understanding of T levels<sup>4</sup> among the public and businesses to a similar level to understanding of A levels, but there is currently a lack of resource for this, particularly engagement with SMEs**. Whilst the timing of the introduction of T levels was not ideal, the biggest challenge is a

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<sup>4</sup> T Levels are 2-year courses launched in September 2020. Developed in collaboration with employers and business they offer students a mixture of classroom learning and ‘on-the-job’ experience during an industry placement. They aim to prepare students for work, further training or study. For more information see: <https://www.gov.uk/government/publications/introduction-of-t-levels/introduction-of-t-levels>

lack of general understanding of T levels among businesses, particularly SMEs about the benefits of T levels and what they involve. Providing colleges with the resources required to engage a wide range of employers on the benefits of T levels will be important in enabling students to benefit from the opportunities offered by T levels.

## Challenges

There are a number of challenges to partnership working to support up-skilling and re-skilling including questions regarding the **quality and nature of partnership working**, how competition between universities can hinder genuine cooperation, the **negative impact of bureaucratic systems and continued funding instability**, different language used in policy, academia and business, **competing skills priorities** at a Midlands Engine level, a **lack of clarity** in some case **regarding roles and responsibilities** at sub-regional level, and **difficulties relating to employers articulating future skills needs**. Some challenges are longer standing than others are.

**In the short-term, remote working creates challenges regarding the lack of informal interactions. It is harder to form in depth and trusting relationships online.** Organisations that already had strong partnerships can flex and draw on these in times of crisis but they will need to be strengthened again in future. **Partnerships are trading off their accumulated social capital and this will need to be replenished at some point.** Whilst there may be many areas where universities could add value, interviewees argued that, in times when systems are under stress, it is important to consider where universities can most add value. More broadly, the pandemic may make partnership working more challenging as it has led to a **focus on the “very here and now” in some institutions and created challenges in terms of focusing on and achieving longer-term strategic goals**: “I need to keep all the students and staff safe, it certainly makes you think very much. Now, we've lost the four weeks of term [we're] planning what needs to happen now, which does make it a real challenge, to continue to implement the actions in your five-year corporate plan and think about the medium and long term”. **Finding time to participate in strategic partnerships and widening participation “when you’ve got a day job” can be particularly challenging in smaller universities** which do not have the capacity of larger institutions.

**Partnerships established between universities and employers can be hindered by a lack of take-up by students.** “I've run schemes in the past where I've worked really hard with an employer, you know, they're offering a great opportunity, we'll promote it out, no one's interested in it, you know, or they're really disappointed in the lack of applications [...]. So it's a really difficult balance”. The pandemic has led to “more” engagement by students with a university careers team and “certainly” more engagement with business start-up support. Nonetheless, interviews indicated that graduates can be unrealistic about the opportunities available in the labour market and an important challenge for careers teams is how to enable students to have a more realistic understanding without disengaging them.

**Challenges to partnership working in terms of a competition culture between universities can hinder the creation of a genuine culture of collaboration. Reflecting on competition between local universities, one regional stakeholder argues that competition has reduced in recent years.** “It was far more a competitive relationship rather than collaborative one, although that does not mean that competition never happens now. But especially in the last two years, conversations are happening now between the universities together and partners that in the past would never have even been

considered". Collaboration is fostered by the existence of cross-university groups such as Midlands Innovation, the Midlands Enterprise Universities and the West Midlands Combined Universities. Nonetheless, several interviewees suggested that **it can still be difficult to develop projects bringing universities with world class facilities for knowledge exchange together with those with traditionally stronger relationships with local supply chains to support knowledge exchange together due to competition** for funding and reputation between the universities: "You've almost got more companies going into slightly less good (university) facilities. And you've got less companies, usually the big ones going into the world class facilities. So, you're creating a gap in the middle where you should be bringing all your universities into the same space. And that that's something that I'm really keen to see on a regional collaboration. Now, but it's a massive challenge". "When you try and blend the two together, it's hard. It's almost like repelling magnets, because of this competition".

A number of interviewees indicated that **universities in the three WMCA LEP areas could work better together**. While there is a desire to collaborate on issues, such as a civic university agreement, each University might still develop their own approach. This was reported as creating challenges when other regions – for example in terms of drawing up civic agreements - are developing collaborative approaches. However, other interviewees indicated that the universities are collaborating well and that the important point is that collaboration serves a purpose. The interviewees stressed how it is important that universities know when to compete and with whom. Research-intensive universities can need to partner with the 'best' for research excellence (in many instances).

**Bureaucracy and a lack of agility within university systems complicate partnership working, making it more difficult for universities to take advantage of opportunities to collaborate with other HE institutions as they arise.** "I think sometimes the kind of red tape, the sort of bureaucracy or the layers of things that that slow us down from being agile and responding to things". One interviewee described how what "starts off being a really exciting project" can have "all the joy is taken away" by slow, bureaucratic systems. **Being agile** is particularly important in the current circumstances when opportunities are likely to be more limited. The impact of bureaucracy within universities can be **exacerbated by universities sometimes taking a short-term approach to staffing** rather than considering the potential longer-term impact of projects. In some large universities there are central procurement and HR teams, but management structures are quite dispersed across Schools and Departments. This poses challenges for outsiders when trying to work with universities on procurement and recruitment issues. Moreover, structures vary between universities and often there is no unified approach to procurement and employment strategies that tackle issues such as social value.

**Instability over funding at a national level creates a reactive rather than preventative approach and hinders partnership working at the local and regional level.** If political uncertainty around the Shared Prosperity Fund and the devolution White Paper that was evident at the time interviews were conducted continues, it was suggested this could hinder how universities are involved in regional economic development and up-skilling. For example, lack of detail over the Shared Prosperity Fund means there is uncertainty regarding whether contracts for ERDF funded projects will continue in future. Staff on these projects have lots of experience and knowledge of working with SMEs that will be lost if funding is not clarified shortly. Representatives from FE emphasised how the College sector has also experienced many short-term initiatives (e.g. Train to Gain, short-term ESF projects to support unemployed individuals) over recent years and that **longer-term funding and policy stability** is important if Colleges are to be able to achieve their strategic goals and students are to be effectively trained to meet employer needs.

**Perceptions of the role of universities in the region among major research funders were suggested to impact on collaboration between universities.** The interviews found that some major research funders perceive the role of some universities as only being teaching focussed and that other universities, usually the bigger older universities, are considered as centres for research activities. This can make it more challenging for smaller universities, perceived as “less research-intensive”, to participate in large funding calls. Widening perceptions of the role of universities and the outputs required could enable a broader range of universities to contribute. More modern universities were suggested to have strong relationships with local supply chains which could be better utilised to support knowledge exchange. An interviewee at a university with a more vocational focus suggested that their university could better promote how they already contribute to knowledge exchange in order to facilitate involvement in collaborations. They identified examples of where they do contribute to knowledge exchange but highlighted how there has not been a traditional culture in the university to champion such examples.

Another challenge is **different language used in policy, academia and business.** Interviewees indicated that timescales are different for each organisation due to how budgets and institutional roles operate, and that consequently the meaning of ‘short’, ‘medium’ and ‘long-term’ differs across organisations. “We all use the terms, but actually, our interpretation of it is different. So in university terms, long-term is probably five to 10 years. Whereas, [...] the Combined Authority only gets its’ budgets approved on a yearly basis. [...] So a year’s worth of budget is probably long term to them”.

One **smaller university with a vocational focus indicated that they have experienced difficulties establishing strategic partnerships, particularly with large employers.** They suggested that this relates to a number of issues including difficulties carving out a voice in a crowded HE landscape and perceptions relating to the quality of education provided and a preference for some employers to work with larger research-intensive universities.

**It can also be challenging for universities to work with employers to support their skills development needs due to strong variation in employer needs in relation to certain key skills.** For example, one interviewee emphasised a lack of clarity on what ‘leadership skills’ are. They noted how this can range from resource management and financial budget skills to skills relating to developing policies, processes and systems to softer skills connected to working within teams and motivating others related to the culture of the organisation. Greater understanding of employer skills needs is important in ensuring that courses and programmes offered by universities and college respond to the needs of employers in the region.

There is some evidence of **competing skills priorities at a Midlands Engine level and a lack of clarity in some cases regarding roles and responsibilities at pan-regional, regional and sub-regional level.** Some interviewees were unclear regarding how the role of the Midlands Engine Skills Group relates to the focus on skills policy within LEPs in the West Midlands. Other interviewees stressed the role of the Midlands Engine Skills Group in relation to **sharing practice** – so as to “not re-invent the wheel”. A number of interviewees within universities suggested that the ability of universities to contribute to up-skilling and re-skilling within the region was hindered by some regional bodies not seeming to fully appreciate the whole breadth of what universities can offer. The bodies tend to focus on training conducted within universities rather than additional activities universities perform in relation to regional economic development. The pandemic has not changed this, as it has not fundamentally shifted the funding and levers, however there is increasing recognition of the broader role of universities.



**Despite future skills demand being important, precise employer needs** were reported by both university and regional stakeholder interviewees as being **difficult to forecast**, especially in some sectors. Interviewees argued that it is hard to be future focused given some employers struggle to identify and articulate their future skills needs, and the speed with which the environment is changing. Covid-19 has accelerated existing trends relating to homeworking and digital skills. Some interviewees suggested that the education sector traditionally finds it challenging to respond to digital change, and this is even harder when change is accelerated. For example, questions exist over the extent to which the system has been able to pivot up to now to train people to utilise digital skills effectively. Given there is likely to be a rise in low-skilled roles in future as roles are replaced by technological interventions, more consideration is needed of how the education sector is preparing people for these changes. Interviewees suggested that some universities in the West Midlands are likely to be better placed than others to pivot and be “more responsive” to developing shorter courses due to their longer history of working closely with local supply chains.



## KEY MESSAGES AND RECOMMENDATIONS

This report has analysed the role of universities in relation to the skills development component in economic development in the West Midlands. It first identified key short and medium-term priorities for the up-skilling and re-skilling of school leavers, graduates and existing employees. Discussion then focused on how universities (and colleges) are already contributing to addressing these priorities before identifying future opportunities for universities to develop their involvement in partnerships designed to address up-skilling and re-skilling challenges in the region. Barriers to universities engaging in such partnerships are highlighted.

Upskilling and reskilling of the UK workforce over the next decade is essential if the UK is to avoid the creation of significant skills gaps and mismatches. Thanks to increased technological innovation and growing adoption of new technologies, the types of jobs available and the range of skills required by employers are changing. Looking ahead at the current time is complex given the ongoing Covid-19 pandemic. Challenges especially exist in relation to finding employment to utilise and develop skills in the current difficult labour market. Development of new technologies and increased digitalisation is likely to extend new ways of learning, including blended learning. Such trends have been rapidly accelerated by the pandemic (CIPD, 2021). This increases focus on lifelong learning and the importance of developing an effective system supporting lifelong learning for all.

### Key findings include:

1. **Universities and colleges in the West Midlands are contributing considerably to up-skilling and re-skilling** through developing future sectoral skills, piloting new ways of learning, supporting graduate employability, addressing access to higher education (HE) barriers, developing pathways between further education (FE), and HE introducing applied higher-level skills development initiatives and working with regional governance stakeholders.
2. The universities and colleges have **established a range of programmes and institutes to support up-skilling and re-skilling across specific sectors** important regionally. There are a number **of good examples of how HE and FE can collaborate successfully** such as the Greater Birmingham and Solihull Institute of Technology and how Warwickshire College Group works with HE. The projects show how partnerships can be designed to include strong employer participation which, in turn, enables skills providers to tailor courses to directly respond to the needs of local employers. Several important projects such as the Marches Centre of Excellence in Health, Allied Health and Social Care and the Birmingham Health Innovation Campus have also recently received funding or are due to shortly open. These projects will be important in addressing skills shortages in the West Midlands and supporting the workforce to adapt to upcoming changes in skills demand.
3. Universities within the region **differ in how they perceive their role in producing talent, with some focusing more on providing a general education and others more explicitly seeking to develop particular future skills linked to key sectors** especially digital, health and social care, advanced manufacturing, cyber and sustainability/low carbon.
4. **There has been considerable organisational progress** in terms of **partnerships between universities in the West Midlands and regional and pan-regional stakeholders** such as the Midlands Engine, West Midlands Combined Authority, LEPs, Local Authorities and university groups (such as Midlands Enterprise Universities, Midlands Innovation and the West Midlands Combined Universities).

5. In terms of their strategic role within up-skilling and re-skilling, universities act as **attractors and producers of talent, support knowledge transfer and help with pivoting business models. Skills intelligence** from universities and colleges is being used to support funding asks of national and regional government.
6. **A growing focus for universities is establishing graduate-focused careers guidance.** Some universities place greater emphasis **on working with local employers to create employment opportunities for graduates.**
7. **Existing forms of learning are being developed more** in universities and colleges across the West Midlands including CPD and micro-credentials, short retraining courses, a long-term integrated package of skills and progression opportunities, specialist skills in cyber teaching and educational technology.
8. **Modern universities tend to have longer standing partnerships with FE than Russell Group universities.** They perceive the benefits of working in partnership with FE to **respond to the needs of regional employers and stakeholders and sharing innovation in teaching and learning.** Where Russell Group universities have established partnerships with FE, often such partnerships are **designed to facilitate existing university research and teaching goals.**
9. Opportunities for universities and colleges going forward include:
  - how universities can **expand work with local and regional stakeholders to provide insight into and analysis of skills needs** in local areas and regions,
  - their role in **working with employers to embed employability skills** into the curriculum potentially expanding reach to more students and making careers support more sustainable, potential to **expand the range of shorter courses** offered by universities,
  - **building on new Government initiatives** such as the Lifetime Skills Guarantee, and expanding existing initiatives to support higher level skills through regional investment, R&D and innovation activities.
10. **Universities are hindered in engaging in partnership opportunities related to up-skilling and re-skilling projects due to a number of challenges.** These include:
  - difficulties maintaining and expanding partnership working remotely during the pandemic,
  - how competition between universities can hinder genuine cooperation, the impact of bureaucratic systems and continued funding instability,
  - different language used in policy, academia and business,
  - competing skills priorities at a Midlands Engine level,
  - a lack of clarity in some cases regarding roles and responsibilities at sub-regional level, and difficulties employers face articulating future skills needs.

## Lessons for Policy and Practice

It is clear that much progress has been made in terms of developing effective projects, policies and partnerships to address up-skilling and re-skilling challenges in the West Midlands. However, there is more still to be done.

The research identifies **two key short-term priorities for universities and other regional stakeholders in relation to up-skilling and re-skilling.**

1. There is a need to **address the immediate challenges that graduates face finding and maintaining employment in the context of the current uncertain labour market** in the light of the Covid-19 pandemic and the UK's withdrawal from the European Union.
2. In the light of the pandemic, it is **imperative that universities, FE and voluntary sectors, Local Authorities and the WMCA work together to ensure that the progress made over the last 10 years in basic skills levels is maintained, prioritised and improved.**

A number of longer-term priorities can also be identified:

3. Innovation is key to both growth and reducing inequalities and involves not just research and development but also new ways of working. **It is important that skills development is recognised as a key part of innovation policy and that higher-level skills programmes are expanded.**
4. **Expanding partnerships and integration** between HE institutes and FE institutes and other regional stakeholders **must be prioritised** if the scale of the challenges the West Midlands faces are to be effectively addressed. Partnerships can and **should be designed to add value.** For partnerships to be most effective, **the broader role of universities in relation to skills and economic development should be recognised across regional stakeholders. Better integration between FE and HE offers important ways forward but partnerships should be designed to capitalise on the strengths of both sets of institutions** and for the benefit of employers and workers in the region, rather than to move entirely into each other's space. Expanding cooperation between FE and HE in jointly delivering degree apprenticeships offers particular opportunities. The Midlands Engine Skills Group could be strengthened to act as a key conduit for sharing practice across universities, colleges and other regional stakeholders in relation to skills interventions.
5. **It is essential that policymakers and universities are given the funding and institutional stability to build on existing progress** in supporting up-skilling and re-skilling in key sectors in the region and develop longer-term partnerships to support up-skilling and re-skilling in these sectors. The West Midlands benefits from a wide range of capital projects in several key sectors but it is important that more links are developed from these into complementary and relevant training schemes.
6. **A contradiction should not exist between a focus on providing students with a general education and addressing local and regional skills gaps.** Each approach should not be at the exclusion of the other.
7. To ensure that negative impacts of the pandemic on the most disadvantaged communities in the West Midlands are not compounded, **a series of integrated approaches is required. Expanding place-based approaches to widening participation could help to deliver better overcomes and reduce barriers to HE.** Such approaches could involve universities working with key community, adult and FE partners to establish adult learning hubs in particular local areas with low participation rates in higher education to offer targeted support to develop confidence, breakdown barriers and focus on specific skill developments to align with local employment opportunities and support progression/increase access to FE and HE; working with the WMCA to create new flexible funding for innovation to address adult access routes.
8. **Developing a skills escalator approach at the West Midlands level offers opportunities** to maximise the potential of collaboration between communities, FE and HE to create a more responsive skills system. Such a system could improve chances and employment outcomes for individuals whilst also supporting FE and HE recruitment goals. For individuals to be able to

“build up and progress” along pathways, it is important that that bite-sized learning provision is accredited. This could promote social mobility and help achieve inclusive growth.

9. Despite all of the difficulties, particularly in the context of the impact of the pandemic, it is **essential that universities continue to maintain and develop links with employers** to ensure that skills provision responds to changing local, regional and national skills needs. Improving how employers can access relevant university departments and institutes is important.
10. **Universities can expand their role in providing strategic level insight** for regional stakeholders, monitoring, analysing and evaluating skills needs as trends change and projects develop.
11. Given the challenges created by the pandemic, **it is important that universities maintain and expand their global outlook** to support how they approach and address up-skilling and re-skilling challenges. Global links can enhance research excellence and maximise influence and transferability of best practice to support regional skills learning. Global links could also be important if future work trends mean that graduates might increasingly stay in place but work in global companies.
12. In view of likely continued changes in the types of jobs available and the range of skills required by employers caused by increasing technological innovation and growing adoption of new technologies, **universities could play a central role in a broader skills system that is geared more towards lifelong learning.**

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