

South Yorkshire Local Skills Improvement Plan

2023 - 2026









This Local Skills Improvement Plan has been approved by the Secretary of State in line with the approval criteria set out in the <u>Skills and Post-16 Education Act 2022</u>, and in accordance with the <u>LSIP statutory guidance</u>.

South Yorkshire Local Skills Improvement Plan (June 2023)

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PART 1: LSIP Priorities

The South Yorkshire Local Skills Improvement Plan – what it is and why it matters

A shared plan for aligning skills provision with employer needs

The three South Yorkshire Chambers of Commerce - working collaboratively as the designated Employer Representative Body (ERB) for South Yorkshire (SY) - present the Local Skills Improvement Plan (LSIP). The LSIP is an important strategic document given force by the Skills and Post-16 Education Act 2022. It sets out the skills needs and priorities for the region, as articulated by employers themselves. It provides a framework for post-16 education and training providers to develop provision that is responsive to the needs of the local labour market, as these are expected to evolve over the medium term. The LSIP is built on robust evidence, gained through strong partnership working between the Chambers of Commerce for Barnsley & Rotherham, Doncaster and Sheffield, engaging with other Business Representative Organisations and networks. It draws upon primary research gained through constructive engagement of the region's employers, training and education providers, funding, and strategic bodies.

Focusing on local opportunities to improve outcomes for the South Yorkshire economy

The LSIP is not intended to be a comprehensive account of the skills and training provision available to employers based in SY. For example, we know that, increasingly, employers access training offered by their software providers, many of whom have customer support departments that are now among the biggest suppliers of technical knowhow in this and other countries. Global, virtual education and training platforms also play an increasingly important role in our lives. We expect South Yorkshire's providers to be cognisant of this as well and to plan and organise their provision accordingly. Though these tech giants are amongst our biggest providers, SY's direct relationship with them currently isn't as embedded as it could be and there may be opportunities to build on established relationships that are in place and functioning effectively, including IBM's links to Doncaster UTC and Microsoft's links to Doncaster College.

The LSIP *does* provide a representative and coherent employer view of the skills most needed to support local economic growth, boost productivity, and realise the talent of all our communities and people. The LSIP focuses on changes that can be implemented *locally*. This does not mean that national, or even international factors are not important to the demand, supply, and level of investment in workforce skills. But the question of how the national policy context might be optimised through fiscal, regulatory, or other reforms are pursued separately to this plan by Business Representative Organisations, and others.

A mediated dialogue that translates employer needs into demands that are understood by training and education providers

Employers, training, and education providers have unique perspectives but similar and complementary aims. Each brings valuable insights to the question of how our skills system should evolve. Employers know their business, their sector, and how their labour requirements are likely to change over the short to medium term. They have first-hand experience of how skills shortages translate into lost economic opportunities – and, conversely, how access to skills gives a competitive advantage. By engaging them on their forward plans for recruitment, investment, and change, we can understand the skills they will need to realise their ambitions. The LSIP quantifies these skills requirements.

Employers engaged in developing the LSIP pointed out in survey responses and interviews: "you don't know what you don't know". The frontier of the economy is being disrupted by innovators equipped with skills and knowhow beyond the mainstream understanding of many existing employers. To stay ahead, they look to training and education providers not only for instruction of employees in the skills they know, but also for understanding the technologies, emerging best practices, and skills they are less familiar with. For their part, local providers such as further education (FE) colleges, must work within the constraints of funding, the pressures of the market as they experience them, and the economics of provision for individuals and cohorts.

The process to produce this LSIP was a mediated dialogue between partners with a range of differing perspectives. The SY Chambers worked closely with local employers to identify and prioritise the skills needed for growth in the region's economy; and with providers to translate these into priorities for *provision* - meaningful actions to help people develop the skills they need to get good jobs and increase their prospects.

The LSIP is intended to be the framework that other relevant plans covering skills will align to, adding value to them and joining them up effectively. This includes, for example, the necessary skills, capabilities, and expertise required to support net-zero targets and adaptation to climate change. It is an important step towards creating a more responsive and productive skills system for SY and will be reviewed and updated as necessary to ensure it remains relevant to the region. It will inform the decisions of local skills providers and commissioners and relevant future funding bids into government, such as the Local Skills Improvement Fund available from this financial year (2023-24).

Building on the Trailblazer LSIP by focusing on digital skills

This LSIP builds on an earlier 'Trailblazer' plan developed between autumn 2021 and spring 2022. This initiative was established to create a blueprint for English LSIPs, and South Yorkshire was one of the eight regions chosen to participate.

During the Trailblazer pilot, the SY Chambers of Commerce, led by Doncaster Chamber, engaged with hundreds of employers through workshops and surveys. They also drew on the insights of trade unions, other business networks, and anchor institutions across the region to collect a substantial body of evidence on the region's skills needs. The Trailblazer provided the impetus and means to create the much-needed structure to organise the region's collective efforts on skills that previously hadn't existed. To move this forward, it is now incumbent on SYMCA, local authorities and providers to use the partnership structure effectively.

The resulting LSIP took a broad-ranging perspective on the region's skills needs, with actions developed across five areas:

- Navigation establishing an easy-to-find, coordinated, and accessible skills system
- Proactive employer engagement ensuring that employers actively inform learning design and delivery
- Responsive provision making skills and training provision more responsive to employer needs
- **Celebrating, spotting, and scaling up success** celebrating success, building on good practice, and activating employer learning in terms of reach and depth
- **Promoting Better Pathways** improving pathways to employment, including measures to improve outcomes for those at the very margins of the workforce

The Trailblazer LSIP identified a strong need for digital skills in the region, and the strategic context further channelled the focus in this direction. This focus on digital skills is carried forward into the current LSIP for South Yorkshire, reflecting the region's changing economic landscape and the objectives set out in the South Yorkshire Mayoral Combined Authority's Strategic Economic Plan (SEP), as well as the need for workers to adapt to new technologies and ways of working in order to access and safeguard good quality jobs, avoiding the risk of obsolete jobs resulting from automation.

What we mean by 'digital skills'

Digital skills refer to the abilities and knowledge needed to effectively navigate, use, and communicate through digital technologies and tools. These are difficult to pin down because of technological change – exemplified by the emergence within this LSIP review of 'prompt engineering' as a generic skillset for using Large Language Model AI services. But it is possible to categorise digital skills according to 'baseline' (cross-cutting) and specific competencies. These include:

- <u>Baseline digital skills</u>: demanded by employers across a wide range of jobs and sectors, such as the ability to
 use Google Docs, Microsoft Excel, and other software in the Microsoft Office suite; Project Management
 Systems; and Enterprise Resource Planning software. These are fast becoming basic skills requirements for the
 UK labour market.
- Specific digital skills: these are not required across most jobs but define or dominate specific roles or sectors.
 They include digital skill requirements for more technically oriented jobs, such as Cyber Security. Analysis of job market data suggests that these skills can be grouped into the seven broad categories of Software and Programming; Networking Systems; Data Analysis; Digital Marketing; Digital Design; use of Customer Relationship Management Software; and Machining and Manufacturing Technology.

How the LSIP engaged employers, education and training providers to understand the demand and supply of digital skills

The priorities and actions of the LSIP are informed by a detailed evidence base (see Appendix— Evidence Base) that draws on:

- Primary Research The South Yorkshire Digital Skills Survey reaching 700 employers in South Yorkshire. Complementing this, 116 in-depth one-to-one interviews were completed between February-April 2023 to gain views on the digital skills that are important to employers now, those that will grow in importance in 2-5 years' time, workforce digital skills gaps and shortages, digital skills training needs, gaps in provision, and modal preferences for training. The survey was cascaded through a range of business groups and networks, in addition to Chambers of Commerce. It also draws on insights into the region's labour market, collected from South Yorkshire's Quarterly Economic Survey (the QES, conducted by Chambers) since the Trailblazer LSIP over 1,173 survey responses between 2022q1 and 2023q1 inclusive.
- <u>Focus Groups</u> with employers to gain views and experiences of digital skills needs and provision in South Yorkshire.
- <u>Desk Research</u> pulling together key insights from national and regional research reports and datasets on digital skills.
- Engagement events, workshops and meetings a substantial amount of engagement meetings and strategic and operational conversations were held to gather views and insights to feed into the LSIP from a wide range of stakeholders, including 1-2-1 meetings with: all FE colleges, Independent Training Providers and bodies representing these (including the South Yorkshire Provider Network, Northern Skills Network, Yorkshire Learning Providers); and specialist post-16 education providers (Harrison College, Doncaster Deaf Trust). Meetings were also held with skills leads from the four local authorities (Barnsley, Doncaster, Rotherham and Sheffield), the Careers and Enterprise Hub, National Careers Service, Job Centre Plus, the Regional Skills Advisory Board, and a range of departments and teams within the South Yorkshire Mayoral Combined Authority, including education and skills, policy, data and AEB procurement leads.

Framing the challenge

Improving the region's digital skills base will be necessary to close the productivity gap, diversify the economy and avoid a repeat of the structural unemployment left by coal pit and factory closures, seize new opportunities in growing sectors, and unlock the latent potential across our communities

South Yorkshire's economy is fast becoming dependent on the quality and quantity of its digital skills supply both in terms of the occupational categories that map onto them directly, and their role in augmenting work across the labour force. Specialist occupations utilising digital skills now account for one-in-twelve job vacancies - the second-highest share in South Yorkshire after healthcare. As a result of the evolving digital and technological landscape, employers expect 37% of the roles in their workplace to alter significantly within the next five years.

- +44%: Share of all net employment growth in South Yorkshire, 2020 2035 is for Science, Engineering and Technology professionals. *Source: Skills Imperative 2035*
- **12,875:** Forecast net increase in Science, Engineering and Technology professionals in South Yorkshire, 2020-2035. *Source: Skills Imperative 2035*
- 1,695: Online job adverts for ICT professions in South Yorkshire in December 2022. Source: Unit for Future Skills
- 90%: Jobs needing some digital skills within 20 years. Source: Deloitte LLP (2015), 'From brawn to brains: the impact of technology on jobs in the UK'
- Almost 43,000: Jobs at high risk of automation in South Yorkshire. Source: ONS 2017

Whilst the onward march of technological change is creating demand for employees in new sectors and roles that draw heavily on digital skills, it is also reducing the need for labour inputs in other areas of the economy, and other business functions, such as administration and sales. Those in occupations at highest risk from automation today are most likely to be women and the youngest and oldest age groups. A failure to address South Yorkshire's changing demands for digital skills will undermine the growth prospects of businesses, leave leadership teams unable to exploit potential productivity gains and access new markets, and leave the region at greater risk of structural unemployment than elsewhere in the UK. South Yorkshire employers are committed to accessing talent wherever it is found. Ensuring

that those at risk from automation, or other disadvantaged groups, are empowered with the digital skills needed to access new job opportunities will be crucial to unlocking potential.

Digital skills are already essential for workers and businesses in South Yorkshire. They carry a wage differential and promote career progression. They are also becoming near-universal requirements for employment at all skill levels, with digital skills being essential entry requirements for two-thirds of occupations. The COVID-19 pandemic accelerated the pace of digital adoption, and the introduction of new technologies is the top reason for the expected need for new skills among South Yorkshire employers.

Digital skills and the South Yorkshire labour market

South Yorkshire is under-supplied with digital skills

The supply of digital skills to South Yorkshire's workforce is a concern for employers, with the introduction of new technology being a key factor contributing to the growing skills gap. Almost a quarter of adults in the region lack essential digital skills for work, and shortages of advanced digital skills have increased sharply over the past three years. The pace of digital skills development is not keeping up with the speed of technological adoption.

The most significant digital skills gaps in South Yorkshire's workforce are in social media & digital marketing skills, web content management skills, and data skills. Results from the survey undertaken for this LSIP indicate that many employers disagree that their workforce currently meets their business needs in these areas. Specifically, 28% of employers strongly disagree/disagree that their workforce has sufficient social media and digital marketing skills, while 25% disagree that they have adequate web content management or data skills.

Recruitment difficulties arising from a lack of digital skills have increased sharply, with South Yorkshire employers finding it most difficult to recruit individuals with strong data skills. For context this entails everything from spreadsheets to database management, analytics and building data visualisations, advanced skills that leverage machine learning and data science, and more.

The South Yorkshire Digital Skills Survey shows that 50% of employers say it is difficult to recruit individuals with good data skills, and 39% face challenges with recruiting workers with security, privacy & GDPR skills. Retaining workers with good data skills is also a struggle for South Yorkshire employers.

Demand for digital skills is growing in South Yorkshire – and changing

The demand for digital skills in South Yorkshire is on the rise, with technology becoming central to the business strategies of many organisations. General office software skills are *currently* the most in-demand digital skill in South Yorkshire, followed by security, privacy & GDPR skills, data skills, social media & digital marketing skills are expected to be the biggest digital skills growth area over the *next two-to-five years*.

Skills with significant gaps in the region, particularly social media & digital marketing skills, web content management skills and data skills, are not only important now but are also expected to grow in importance over the next few years. Addressing these skills deficiencies will be critical for the region to keep pace with the evolving digital landscape and to ensure that businesses are equipped to thrive in the digital age. The pace of change is demonstrated by the rapid growth in AI services – such as Large Language Models like ChatGPT, which within the relatively short timeframe of the LSIP process, has already spawned applications of the technology across the skills areas listed above.

"Work and productivity will change and we need to embrace technology"

Baroness Martha Lane Fox, tech entrepreneur, investor and President of the British Chambers of Commerce, speaking at the BCC Global Annual Conference, May 2023

For each of the most in-demand digital skills, around 25,000 - 27,000 South Yorkshire employers are likely to be in the market for training in the next two years

Employers in South Yorkshire are taking on the responsibility of addressing digital skills gaps by developing their workforce through workplace training. The pace of technological development, which is rapidly changing the digital skillsets required for work, means they cannot rely on the education system alone. Most employers believe that workplace training is a more sustainable long-term strategy than hiring in new workers.

Data skills and social media & digital marketing skills training are in demand by more than two-thirds of South Yorkshire employers. Applying rates of training demand from the South Yorkshire Digital Skills Survey to the region's business population indicates that over the next two years, 25,000 to 27,000 businesses will be looking to provide employees with data skills and social media and digital marketing skills training.

The table and chart below show the total estimated demand across each digital skills category tested in the survey. The estimates are calibrated to the results obtained for each size category of business. An explanation of the methodology, approach to weighting results and more detailed tables (by sector and geography, weighted and unweighted) are available in the Appendix – Evidence Base.

Skills ranked 1-3 out of 11 Skills ranked 4-6 out of 11							
Digital Skill Area	Important to Business Now	More Important to Business in 2-5 Years' Time	Skills Gap (The Workforce Doesn't Meet Business Needs)	Hard to Recruit	Hard to Retain	Hard to Find Training	Businesses Likely to Benefit from Training in the Next Two Years
Data skills	32,700	27,700	9,100	16,900	10,900	14,800	25,500
General office software skills	38,300	30,000	4,900	10,900	8,000	11,500	23,900
Other software tools skills	29,600	27,900	6,800	13,300	10,700	12,900	24,500
Social media/digital marketing skills	31,300	31,300	9,000	12,700	9,400	14,000	26,900
Web content management skills	29,100	26,800	9,400	12,600	9,200	14,100	23,900
Security, privacy, GDPR skills	34,800	29,500	4,000	14,100	11,200	13,700	24,500
Computer programming and software development skills	12,100	13,400	6,400	8,600	6,800	8,700	13,000
Specialist computer- controlled equipment skills	9,300	9,600	3,900	7,000	5,100	7,200	13,400
Digital design skills	19,700	18,300	6,600	9,500	7,600	10,400	19,000
Business process automation skills	17,200	16,800	5,500	10,000	8,700	10,600	18,600
Project management skills	27,800	24,200	5,300	12,300	9,800	12,600	22,900

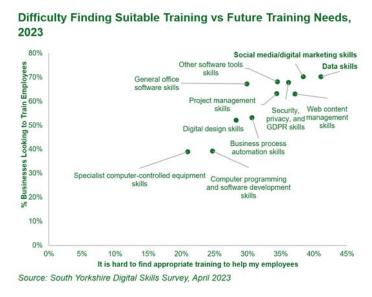
Source: South Yorkshire Digital Skills Survey, February to April 2023. Business-size-weighted numbers generated as follows: (% micro businesses strongly/(dis)agreeing/(di

Businesses likely to benefit from training in the next two years, by digital skill and number of employees to be trained (results weighted by business size):



Employers want blended learning provision, tailored to need

The evidence suggests that to meet employer needs, colleges, schools, and training providers should offer a range of blended learning options for digital skills training. This is the preferred training method for businesses of all sizes across South Yorkshire, and also most sectors. Construction and Retail employers prefer training delivered by 'in-house' expertise such as another member of staff or a member of the business' learning and development team. Employers want flexible training programmes that combine online learning modules with in-person or on-the-job training, while also having access to bespoke training solutions to meet the specific needs of individual workplaces. Employers increasingly rely on technology suppliers for up-to-date knowledge of use cases, and even training.



Employers report that currently, data skills, social media & digital marketing skills and web content management skills are hardest to find training for and are also the biggest workforce digital deficiencies in the region. Mapping likely future training needs against training that is hard to find suggests there could be large shortfalls in provision for data skills and social media & digital marketing skills.

Employers in South Yorkshire face a shortage of workers with advanced digital skills, as the pipeline of skills from the education system is not providing the necessary skills at the scale required

The low percentage of ICT/computing education at all levels is a concern for employers as the number of people taking ICT courses has declined in recent years. It is unclear that mainstreaming of digital skills into other subjects can compensate for this. The lack of teachers is another factor that has contributed to digital education deficiencies in schools, with recruitment and retention issues common in secondary STEM education. There are gender gaps in digital education, with females less likely to study ICT subjects, while poorer students are also less likely to take a Computer Science GCSE, which correlates with a higher proportion of disadvantaged students lacking access to a computer at home.

Two-in-five employers disagree that young people leaving full-time education have the advanced digital skills that they need. There is an opportunity for the education system to provide more comprehensive and inclusive digital skills education to ensure a sustainable pipeline of digital talent for the future workforce.

Employers face financial and information barriers to investment in digital skills

Employers in South Yorkshire report barriers to investing in digital skills. One of the key challenges is keeping pace with trends and changes in technology, which can make it difficult to create long-term training plans. For the education sector, there are also challenges in matching the speed of change in training supply to the speed of demand for rapidly changing skillsets. Another significant barrier is the high cost of technology and related training. Many employers say they cannot afford to enhance their tech infrastructure and upskill their employees under their current financial constraints. Many also lack understanding of the paths to tech adoption, and struggle to set out a digital roadmap. This makes it difficult for them to know which skills to invest in and how to become more digitised.

Navigating digital skills provision and business support can also be a challenge for employers, with many not knowing what digital skills provision looks like or how to find it. Additionally, not all employers are aware of the financial support and grants available for digitising. Ensuring that skills and business support are properly joined up is important in showing employers how they can plan for the future – such as plotting their technology or digital roadmaps.

Many employers have an ageing workforce, with older workers more likely to lack digital skills and be less receptive to digital training and tech adoption. This presents a challenge to employers looking to upskill their existing workforce and ensure they are equipped for the future. Addressing these barriers will be crucial for ensuring that South Yorkshire employees are able to develop the digital skills that businesses need to thrive in the years ahead.

The strategic context for developing LSIP priorities for digital skills provision

There is a wider strategic context for the development of this LSIP. The election manifesto of South Yorkshire's Mayor made commitments to improve adult education and training, as well as to prioritise improving digital skills (for those within the most disadvantaged communities in particular). Local authorities in the region have all either developed and adopted Skills Strategies or are in the process of doing so; and business networks and trade associations have also produced their own plans, which have informed their inputs to this process – including the People and Skills manifesto from South Yorkshire Chambers of Commerce.

As well as building on the Trailblazer LSIP of 2022, this LSIP aligns with relevant objectives from the South Yorkshire Mayoral Combined Authority's Strategic Economic Plan (SEP), and the Advanced Manufacturing Innovation District's strategic plans to support local skills needs. Many emphasise the importance of improving the region's digital skills base and share common themes relating to simplifying navigation of the education and training system; promoting visibility of opportunities for employers, employees, and learners; responsive provision; and unlocking talent across all our communities.

SYMCA Strategic Economic Plan (2022)

- More investment in vocational education infrastructure and apprenticeships
- Targeting adult vocational education skills funding towards provision that explicitly meets the needs of employers and learners and links to areas of employment growth
- Ensuring that employers are better integrated in the skills system, with deep and effective collaborations between businesses, education, and training providers to drive skills development
- Stimulating the development of bespoke training and upskilling packages to employers
- Securing commitment from local businesses to invest in the development of technical skills
- Establishing South Yorkshire as a place for world-class technical education
- Developing a new approach to lifelong learning, ensuring that learners can respond to the changing needs of the economy
- Delivering an all-age careers service that helps people to make informed skills and career choices
- Developing programmes to help those out of work to get into and progress in work - linked to areas of economic opportunity.

SY Chambers' People and Skills Manifesto (2022)

- A modern customer journey a business experience of navigating the skills system that matches the best of other sectors
- Co-creation in the design of policy, skills and training products - businesses proactively engaged with local funders and providers
- Skills delivery at the cutting edge of business need and working practices - access to training that responds to the changing needs of employers
- Higher visibility of growth opportunities through skills effective marketing to business of South Yorkshire's skills provision
- The release of hidden workforce potential in our communities businesses connected to talent in harder-to-reach groups

Further to the more broad-ranging actions for improving South Yorkshire's skills base, the SEP identifies four areas for accelerating the adoption of digital technologies by businesses and communities:

• Secure cutting-edge digital infrastructure to develop smart communities by extending digital connectivity coverage (full fibre and 5G) across the whole of South Yorkshire

- Improve digital skills to increase understanding and take-up of digital technologies by developing, attracting
 and retaining talent, increasing the supply of digital skills, and ensuring that digital technology and curricula
 are relevant to rapidly changing business needs
- Build inclusivity, by widening participation and building capacity for all, ensuring that all residents have at least basic access, skills and confidence to harness the benefits of digital in their lives and work
- Support business innovation and growth, by supporting SMEs to become full-fibre and 5G connected, providing better links to schools, colleges and universities to access future digital skills, and enable them to exploit the commercial benefits of digital applications and services.

PART 2: Taking the LSIP Priorities Forward

Cross cutting priorities

Retaining South Yorkshire's skilled talent

South Yorkshire employers are experiencing digital skills gaps in their current workforce, difficulty sourcing the training to upskill employees, as well as difficulty in recruiting digital skills into the business. One third of skills shortage vacancies in South Yorkshire are directly caused by a lack of digital skills, and though this is a level similar to the national average, advanced digital skills are a bigger cause of recruitment difficulties in South Yorkshire than many other areas of England. This has worsened over the years, with the Employer Skills Survey 2019 showing the proportion of South Yorkshire employers reporting basic digital skills being difficult to obtain from applicants climbing from 8.5% in 2013 to 19.1% in 2019, and advanced digital skills even more sharply increasing from 10.1% to 25.4%.

During the consultation for this LSIP, South Yorkshire employers frequently spoke of difficulties in recruiting the right talent and experiencing shortages of skilled workers. The lack of digital skills is a particular concern for some employers, including for specialist occupations such as Civil Engineering. Partnerships with universities to create a pipeline of talent equipped with the required skills have been found to be beneficial for some employers.

Close collaboration between South Yorkshire employers and providers is not only essential to ensure employer skills needs are reflected within curriculum design, it also offers an opportunity to highlight hidden career opportunities, connect hidden talent and retain talent equipped with these skills within the area. Ensuring equity of opportunity to a variety of businesses is also important, in order to not further exacerbate recruitment difficulties for those with more limited capacity to engage due to workforce shortages. This may be achieved by offering a range of opportunities to engage with varying levels of commitment. Examples include participation in an employer steering group to feed into curriculum development, delivering careers talks, setting employer projects or providing industry mentoring to teaching staff.

Strong links between providers

The region has a strong FE sector with quality providers, as demonstrated by the good and outstanding ratings awarded through recent Ofsted inspections. The need remains for the sector to maintain an open mind and continue to participate in constructive dialogue with system partners, to enable continued improvement and sustained collaboration.

Many of the region's providers have developed strong links with employers and have established dedicated teams or employees whose role is to engage with employers. For smaller and independent training providers where dedicated resource may not be available, there is an opportunity for closer working with business support and business representative organisations. The latter can play a convening role and support providers with establishing and continuing to add to these mutually beneficial connections.

Good practice has also been seen through collaboration between providers through Strategic Development Fund activity, led by Barnsley College. This activity has aimed to standardise the experience for employers and move towards a provider-agnostic single point of access in order to aid navigation of the complex provider landscape. A central business function was established, working collectively to share and disseminate information and in three months engaged over 800 employers, identifying skills gaps in over 75%. The collaboration was also successful in reaching South Yorkshire employers who weren't already engaging with providers, with 580 new referrals made to provision.

This work was part of South Yorkshire's provider-led response to the Trailblazer LSIP funded by DfE's Strategic Development Fund. A continuation of this work is recommended through the Local Skills Improvement Fund, to build on the success so far, and fully embed this proactive, cross-provider approach to employer engagement.

Promoting digital careers and increasing participation and learner diversity in digital education

While digital skills are only set to continue to grow in importance in South Yorkshire businesses (including Data Science and Computer Science to support achievement of net zero) there is already a high proportion of ICT-related Skills Shortage Vacancies and digital occupations in high demand. Participation rates in computing and ICT education therefore need to increase.

Teacher shortages are a key driver of digital education deficiencies in schools, with recruitment and retention issues common in secondary STEM education. There are also large gender gaps in digital education at all levels, with males more than three times as likely than females to enter an ICT/Computer Science GCSE (UK, 2022), more than five times as likely to enter an ICT/Computer Science A Level (UK, 2022), 2.5 times as likely to complete an ICT apprenticeship (South Yorkshire, 2021/22) and three times as likely to start a Computing degree (UK, 2021/22). Poorer students are also less likely to take a Computer Science GCSE, which correlates with a higher proportion of disadvantaged students lacking access to a computer at home.

Careers advice for all ages should raise awareness of the applicability of digital skills to most jobs and of digital careers opportunities and the pathways and provision available to unlock these careers, including entry level qualifications, T levels and Apprenticeships and Higher Technical Qualifications. Equally, employers need to invest in the long term and engage with education to offer quality work placements and internships, in turn enabling learners to gain the exposure to industry that is reportedly often missing in new labour market entrants.

The Trailblazer LSIP highlighted that 40% of South Yorkshire employers would like to play a greater role in supporting careers provision in schools and colleges, equating to approximately 16,000 businesses (South Yorkshire Skills Accelerator Survey, 2022). This intention should be explored further, with an effective and coordinated mechanism to facilitate, that brings together the region's existing networks and systems collaboratively rather than through a short-term programmatic approach.

South Yorkshire already has some excellent examples of good practice and proactive interventions in Careers Education, Information, Advice and Guidance (CEIAG) that should be further built upon. These include the South Yorkshire Careers Hub (which has successfully matched Enterprise Advisers from industry with 91 centres), Skills Street (an immersive and interactive centre of excellence for training across all industry sectors built at Gulliver's Valley resort in Rotherham), Opportunities Doncaster Live (a careers fair led by Doncaster Chamber of Commerce aimed at showcasing hidden careers and attended by over 3000 young people and more than 100 businesses each year), and Get Up to Speed in STEM (celebrating the Science, Technology, Engineering & Manufacturing sectors and impacting over 34,000 young people in its ten year history at Magna conference centre in Rotherham).

Addressing inequality and additional needs for support

With digital skills crucial to accessing well-paid future jobs in South Yorkshire, there is a risk that if left unaddressed 'digital poverty' today, could entrench inequalities of income and opportunity for the long-term. From an employer perspective, this means potential talent going untapped. Digital poverty restricts someone's ability to interact with the online world. This could stem from an absence of the most basic digital skills; digital disengagement due to worries over data privacy and security, or lack of interest; or because of a lack of affordable access to the internet and the cost of the necessary devices. According to research by the University of Sheffield, the most digitally poor areas within the region include Mosborough, Darnall, Burngreave and Firth Park wards in Sheffield; the Adwick le Street & Carcroft and Conisbrough wards in Doncaster; Central ward in Barnsley; and the Rotherham East ward. The research makes a number of policy recommendations, including ward-level interventions to address digital poverty including: device donation and charging schemes, IT buddies and digital champions within wards, and digital skills programmes for younger generations.

Interviews with employers highlight a lack of confidence, particularly amongst older age groups, as being a barrier to accessing digital skills training with some employees reluctant to attend digital skills training or engage with the use of technology.

"Our older employees are really struggling with the computers and office 365. We have tried some external training providers however we have not had a good experience with them as they have been very 'jargony' and the training hasn't translated very well."

"Properly implemented technology doesn't require massive amounts of training as it should be easy and intuitive to use. Confidence is a much bigger concern" "We have a very small percentage of older generation employees who take some encouraging to use the job tracker system (tablet / checklist), but we have the experience in house to facilitate education. We recognise this difficulty and therefore approach it in a helpful and supportive way."

In addressing digital skills gaps reported by employers, consideration should also be given to responding to more basic needs or confidence building for those who require it, and to the most appropriate mechanisms to enable these learners to succeed. This may include access to peer to peer support networks outside of the workplace; reverse mentoring to buddy up with more confident and tech savvy employees, and support from voluntary and community-based settings.

Technology adoption and digital road mapping

Skills gaps resulting from the introduction of new technology are more pronounced for South Yorkshire businesses than the national average, placing the region seventh worst of 38 Local Enterprise Partnership areas.

Despite this, many employers view technology as being core or important to their business and some would welcome support to fully harness its potential.

"Technology plays a large part of how we operate and in how we design and manufacture vehicle installs mechanically and electrically. We have in-house mechanical and electrical design software engineers. Manufacturing requires those drawings and ordered in parts. The BOM is managed electronically. Job phases are managed through our system from tablets and through to dispatch."

More than half of South Yorkshire employers report that technology evolves too quickly for them to keep up with the skills required, making them even less able to plan sufficiently ahead in order to gain competitive advantage. Sole traders/micro businesses are most likely to require help to apply technology within their business.

"I know we are sat on huge amounts of data. Power BI would unleash it. We need to integrate and analyse data better."

"We have a strategy but there isn't much digital in it as we don't have enough technical skills in the business to be able to say what we need."

There is a need for a holistic and joined up offer of business support and skills support to enable businesses, particularly SMEs, to develop a longer-term strategy for technology adoption, alongside training needs analysis and brokerage to ensure employees are upskilled with the appropriate digital skills required.

This should be delivered using a collaborative approach which brings together the collective knowledge, expertise and networks of business representative organisations, and providers working agnostically, as well as with input from technology-first companies or those at the cutting edge of their industry.

Digital Skills to Achieve Net Zero

"South Yorkshire is already a leading player in renewable and low-carbon energy generation and storage, as well as translational research across hydrogen and the design of nuclear technologies."

Oliver Coppard, SY Mayor from his election manifesto: Our Future - Rebuilding the pride, purpose and prosperity of South Yorkshire, May 2022

Digital technology has a key role in helping to achieve net zero greenhouse gas emissions by 2050 by enabling a shift towards zero-carbon solutions (explored further within Appendix - Evidence Base). Opportunities to deploy digital

technologies in support of net zero include the use of robotics and precision farming to optimise crop yields and save energy, as well as the use of smart meters and digital technology to model the availability of different energy sources and integrate intermittent renewable energy sources into the grid.

Remote working practices facilitated through digital technologies and videoconferencing software introduced during the height of the Covid pandemic have been retained in some form in many South Yorkshire businesses. Many employers make a direct link between the reduced requirements for travel resulting from remote working and reducing carbon footprint. There are many examples of employers in the region who have invested heavily into implementing new technology, processes and working practices to reduce waste and create greater efficiencies through the application of digital technologies – or who offer services to enable other businesses to do this. Specific sector-targeted programmes, are also in place to offer support to employers to increase productivity through technology adoption. Made Smarter is targeted at SMEs in the manufacturing and engineering sectors in Yorkshire and the Humber and provides advice from digital experts on how to switch to advanced and automated technologies as well as on how to improve employees' overall digital skills. There may be potential to replicate the concept with other sectors and consider how the knowledge acquired can be shared more widely.

"Part of our business is to support clients in reaching net zero targets. We continue to develop digital solutions to enable them to do this more effectively and efficiently – including a programme to show where in a building energy is lost, cost implications to that and cost to fix etc."

In the same way that dedicated business support activity would enable employers to better define their digital roadmaps and identify opportunities and implementation plans for tech adoption, support to go further and faster with reaching net zero targets would be beneficial. For greater coherence and efficiency, this support should be integrated and provide a single, holistic conversation with businesses, that also aligns to the development of the Clean Energy Strategy for SY, referenced in the Mayor's election manifesto.

Funding

South Yorkshire's devolved **Adult Education Budget** (AEB) provides levers to create change in the system in response to changing employer demands. Though this LSIP is predominantly focused on the articulation of employer demand for digital skills, AEB can be utilised to fund training for learners in these skills. This includes those who are in employment and looking to develop their career, as well as those currently out of the labour market, or new labour market entrants. The specification for AEB should therefore include provision covering the digital skills that are in highest demand across sectors, including non-regulated L3 equivalent short courses that enable learners to quickly upskill.

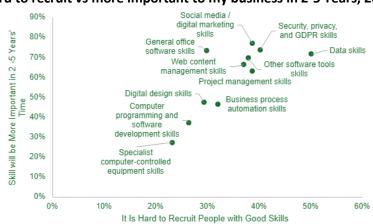
AEB commissioning processes can also support the development of capacity and expertise for digital skills within South Yorkshire. Engagement with providers throughout the process of developing the region's Local Skills Improvement Plan has highlighted constraints within the utilisation of the current Adult Education Budget that are impacting on their ability to be agile, including short term funding arrangements. Smaller and more specialist providers, including those targeted at SEND or advanced digital skills in some cases also felt the procurement process to become an AEB provider put them at a disadvantage. This was due to them often being SMEs with limited resource for bid writing. Based on the feedback, consideration should be given to how commissioning processes may evolve to enable disrupters to enter the market and build more capacity and expertise within South Yorkshire, such as through market warming 'meet the buyer' and supply chain activities, whilst ensuring compliance with legal process and fairness. Sector Work Based Academies and wider use of Skills Bootcamps should be explored as mechanisms to address the digital skills occupations that South Yorkshire employers find difficulty recruiting and that will be more in demand in the next two to five years.

Skills Bank is a South Yorkshire Mayoral Combined Authority funded programme offering employers a financial contribution towards the cost of upskilling their workforce. All training must support business development, resilience or growth. Though employers across the region do utilise the fund and have done so for digital skills provision across a wide range of areas (including general office software, other software, data visualisation, SQL, digital design, cyber security) take up is limited. Awareness of the available funding and the ability for suitable provision to be sourced to

match the needs of the business, would benefit from increased promotion and more extensive referral mechanisms to increase take up.

Skills demand across sectors and by business size

South Yorkshire employers have growing demand for digital skills across a range of job roles and functions, the most prominent of those mentioned by employers during the research being: administration, communications and marketing, accounts, and business development. Employers are also seeking digital skills to maximise value from a range of tech tools and platforms, particularly social media, using Customer Relationship Management systems (CRM), online marketing and sales, and website Content Management Systems (CMS).



Hard to recruit vs more important to my business in 2-5 Years, 2023

The chart above shows the digital skills that will be more important in 2 – 5 years' time mapped against the current level of difficulty employers report in recruiting those skills. This suggests more pronounced occupational gaps, particularly relating to social media & digital marketing, Security, privacy & GDPR, general office software and data as these skills continue to grow in demand amongst South Yorkshire employers. Based on Institute for Apprenticeships and Technical Education (IfATE) Occupational Maps, this suggests potential for increased future demand for Digital Marketers, Cyber Security Technicians, Data Analyst Technicians, Business Information Professionals and Digital Solutions Professionals. In addition, the skills of Software Development Professionals and Business Information Professionals are expected to be in growing demand to support digital requirements relating to net zero.

Across different business sizes, general office software skills and security, privacy & GDPR skills rank within the top three important digital skills for each size of business.

Business Size Top Three Digital Skills Gaps Web content management skills Sole trader Social media & digital marketing skills Data skills Data skills 2 to 9 employees Web content management skills Social media & digital marketing skills Social media & digital marketing skills Web content management skills 10 to 49 employees Data skills Social media & digital marketing skills 50 to 249 employees Web content management skills Data skills Data skills Social media & digital marketing skills 250 or more employees Computer programming and software development skills

These Digital Skills are Important to My Business Now by Size of Business, 2023

Source: South Yorkshire Digital Skills Survey, February to April 2023

These Digital Skills are Important to My Business Now by Sector, 2023

Business Sector	Top Digital Skills Gap
Agriculture, Forestry and Fishing	Project management skills
Manufacturing	Social media & digital marketing skills
Electricity, Gas, Steam and Air Conditioning Supply	Social media & digital marketing skills
Construction	Computer programming and software development skills
Wholesale and Retail Trade	Data skills
Transportation and Storage	Social media & digital marketing skills
Accommodation and Food Service Activities	Data skills
Information technology and Communications	Social media & digital marketing skills
Financial and Insurance Activities	Web content management skills
Real Estate Activities	Social media & digital marketing skills
Professional, Scientific and Technical Activities	Social media & digital marketing skills
Administrative and Support Service Activities	Web content management skills
Public Administration and Defence	Data skills and Web content management skills
Human Health and Social Work Activities	Social media & digital marketing skills
Education	Social media & digital marketing skills
Arts, Entertainment and Recreation	Web content management skills
Other Service Activities	Web content management skills

Source: South Yorkshire Digital Skills Survey, February to April 2023

Demand for training for many digital skill types is common to several sectors and across micro to medium businesses, creating opportunities for providers to achieve cohort sizes that ensure financial viability. Social media and digital marketing skills for example are the top digital skills gap in eight sectors: Manufacturing, Energy, Transportation and Storage, Information Technology and Communications, Real Estate Activities, Professional, Scientific and Technical Activities, Health and Social Work, and Education according to the South Yorkshire Digital Skills Survey (2023).

Mechanisms for promoting these courses effectively to SMEs and addressing difficulties businesses experience in navigating available provision and funding options will be essential. Larger businesses of more than 250 employees, where roles are less likely to span multiple business functions have additional demand for skills in Computer Programming and Software Development. These skills aren't in such high demand for SMEs.

Estimates of market demand by sector

HEALTH AND SOCIAL WORK ACTIVITIES

Size of sector	In South Yorkshire, 93,000 people are employed in the Health and Social Work sector:
	14,000 in Barnsley, 22,000 in Doncaster, 15,000 in Rotherham, 42,000 in Sheffield
	(ONS Census data, 2021). Of the South Yorkshire total, 35,000 filled posts are in adult
	social care (Adult Social Care Workforce Data Set 2021/22).
Skills requirement	Social media & digital marketing and other software tools skills are the greatest
	current digital skills gaps in this sector.
	Employers will focus on upskilling their workforce in data skills, social media & digital
	marketing, and web content management skills within the next two years. Based on
	responses to the South Yorkshire Digital Skills Survey and applying rates to the sector's
	business population in South Yorkshire, 1,100 to 1,500 businesses will be in the
	market for each of these digital skills areas. Employers report feeling held back due
	to their digital skills gaps, though recognise the benefits of digitising and automating
	processes, and interrogating data and information. Experimental use of Chat GPT for
	bid writing was highlighted.

Older employees are perceived to lack confidence in undertaking digital skills training.
Within the adult social care sector, 29% of employees are aged over 55 (Adult Social
Care Workforce Data Set 2021/22).

WHOLESALE AND RETAIL TRADE

Size of sector	The Wholesale and Retail Trade Sector employs 79,000 people in South Yorkshire,
	12,000 in Barnsley, 18,000 in Doncaster, 14,000 in Rotherham, 35,000 in Sheffield
	(ONS Census data, 2021).
Skills requirement	Employers report data skills, web content management, and computer programming and software development skills as being the greatest digital skills gaps in their existing workforce. Occupations highlighted by employers in this sector where digital skills are utilised included PHP Programmer, Graphic Designer, IT Support Technician and Content Creator/Digital Marketer. Indications are that demand for training from this sector in the next two years will predominantly be for data skills, other software and social media & digital marketing skills. Based on responses to the South Yorkshire Digital Skills Survey applied to SY sector size, around 5,200 businesses will be in the market for each of these digital skills areas. Employers interviewed highlighted how the use of technology to improve efficiencies in their operations had helped them to reduce their environmental impact.

EDUCATION

Size of sector	The Education Sector in South Yorkshire employs 62,000 people: 8,000 in Barnsley, 11,000 in Doncaster, 9,000 in Rotherham, 34,000 in Sheffield (ONS Census data, 2021).
Skills requirement	The most prominent digital skills gaps amongst the current workforce reported by employers are for social media & digital marketing, business process automation and data skills. Indications are that demand for digital skills training from this sector in the next two years will predominantly be for data skills, general office software skills and social media & digital marketing skills with around 600 South Yorkshire businesses in the market for each. Employers interviewed highlighted the use of technology as central to much of their operations, ranging from the use of virtual reality and robotics through to marketing and data management, with a high use of software, including Microsoft Teams, Riverside for Podcasting, Moodle, Skillsboost, Rise 360, Articulate, Power BI, Office 365, Prosuite, Prosolution and ChatGPT. Businesses also highlighted areas and roles where digital skills were required to reduce environmental impact
	and address net zero requirements, including robotics and low carbon technology, as well as to support estates programmes looking at new sustainable furniture, heat pumps, solar panels, and new roofing.

MANUFACTURING

Size of sector	The Manufacturing Sector in South Yorkshire's employs 59,000 people: 12,000 in Barnsley, 11,000 in Doncaster, 15,000 in Rotherham, 21,000 in Sheffield (ONS Census data, 2021).
Skills requirement	The most prominent digital skills gaps amongst the current workforce reported by employers in the sector are for social media & digital marketing, web content management and data skills. Indications are that demand for training from this sector in the next two years will predominantly be for social media & digital marketing skills, security, privacy & GDPR skills, data, general office software and other software skills from 2,000 to 2,100 South Yorkshire businesses. Employers interviewed highlighted an extensive use of and investment in technology and in activities supporting net zero, so ensuring that training provision is aligned to advances in technology, will be of particular importance to the sector.

ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES

Size of sector	The Administrative and Support Service Activities Sector employs 49,000 people in South Yorkshire: 7,000 in Barnsley, 10,000 in Doncaster, 9,000 in Rotherham, 23,000 in Sheffield (ONS Census data, 2021).
Skills requirement	Employers in the sector report web content management skills as their largest digital skills gap in their current workforce, followed by data skills and business process automation skills. Indicative demand for training is highest for social media & digital marketing skills, with a market of approximately 2,400 businesses in the next two years, with demand for data, other software, security, privacy & GDPR, and business process automation skills from around 2,100 businesses.

TRANSPORTATION AND STORAGE

Size of sector	The Transportation and Storage sector in South Yorkshire's employs 39,000
	people: 7,000 in Barnsley, 16,000 in Doncaster, 6,000 in Rotherham, 10,000 in
	Sheffield (ONS Census data, 2021).
Skills requirement	Current digital skills gaps reported by employers in the sector are predominantly
	for social media & digital marketing, data and web content management skills.
	Employers are likely to be predominantly seeking to upskill their workforce in
	general office software, data skills and other software tools skills in the next two
	years with demand from 3,100, 2,500 and 2,500 businesses respectively.

ACCOMMODATION AND FOOD SERVICE ACTIVITIES

Size of sector	The Accommodation and Food Service Activities Sector in South Yorkshire employs 37,000 people: 6,000 in Barnsley, 7,000 in Doncaster, 7,000 in Rotherham, 17,000 in Sheffield (ONS Census data, 2021).
Skills requirement	Current digital skills gaps in the sector are highest for data skills followed by other software skills, social media & digital marketing, project management and security, privacy & GDPR. Based on the survey responses applied to sector size, the potential demand for these skills over the next two years is set to number 3,200 businesses. Data, other software and security, privacy & GDPR skills also show strong potential demand, with 2,900 businesses in the market for each.

According to employers, responsibility for delivering key functions is typically
shared across multiple roles. In response to this, it is recommended that
Occupational Pathways for Catering and Hospitality occupations are reviewed to
ensure that employer demands for social media & digital marketing, data skills,
other software skills and security, privacy & GDPR skills are embedded for both
new labour market entrants and those progressing careers within the sector.

PROFESSIONAL, SCIENTIFIC AND TECHNICAL ACTIVITIES

Size of sector	The Professional, Scientific and Technical Activities Sector in South Yorkshire employs 32,000 people: 3,500 in Barnsley, 6,000 in Doncaster, 3,500 in Rotherham, 19,000 in Sheffield (ONS Census data, 2021).					
Skills requirement	Rotherham, 19,000 in Sheffield (ONS Census data, 2021). According to employers, current digital skills gaps are highest for social media & digital marketing, business process automation, web content management and computer programming & software development. Indications are that demand for training from employers in this sector in the next two years will predominantly be for data skills, social media & digital marketing skills, web content management and project management. Based on the employers responses to the survey applied to the sector, the potential demand for each of these skills will be 3,200 to 3,600 businesses over the next two years.					

PUBLIC ADMINISTRATION

Size of sector	The Public Administration Sector in South Yorkshire employs 32,000 people: 3,000 in Barnsley, 6,000 in Doncaster, 6,000 in Rotherham, 17,000 in Sheffield (ONS Census data, 2021).				
Skills requirement	Current digital skills gaps in the sector are highest for data and web content management skills. Indications are that demand for training from employers in this sector in the next two years span across a broad range of areas: data skills, general office software, other software, social media & digital marketing skills, web content management skills, security, privacy & GDPR skills, project management and business process automation skills. Based on the employer responses to the survey who are likely to seek training for employees applied to South Yorkshire's Public Administration Sector business population the potential demand for these skills is to set to number 50 businesses for each, over the next two years.				

CONSTRUCTION

Size of sector	The Construction Sector in South Yorkshire employs 27,000 people: 5,000 in Barnsley, 8,000 in Doncaster, 6,000 in Rotherham, 8,000 in Sheffield (ONS Census data, 2021).				
Skills requirement	The main digital skills gaps reported by employers in the sector within their current workforce are computer programming & software development, general office software and social media & digital marketing skills. Employers in the Construction sector are most likely to be seeking digital skills training for general office software, other software tools and project management, with between 4,100 and 4,300 businesses in the market for each in the next two years.				

INFORMATION TECHNOLOGY AND COMMUNICATIONS

Size of sector	The Information Technology and Communications sector employs 18,750 people in South Yorkshire: 1,250 in Barnsley, 2,000 in Doncaster, 2,500 in Rotherham, 13,000 in Sheffield (ONS Census data, 2021).				
Skills requirement	Specialist IT Professionals account for the second highest proportion of job openings in South Yorkshire. Within these, demand is highest for Programmers, followed by Consultants & Specialists, Systems Developers and Analysts, and Support Staff (Unit for Future Skills, 2022). To support net zero ambitions, demand for Data Science and Computer Science skills is also expected to increase. Employers report the main digital skills gaps within their workforce currently are social media & digital marketing, other software tools and web content management skills. In the next two years employers will be seeking to upskill their workforce in security, privacy & GDPR skills, social media & digital marketing skills, web content management, other software and data skills. Based on the numbers of businesses in this sector responding to the survey who are likely to seek training for employees applied to South Yorkshire's Information Technology and Communications sector business population, the potential demand for each these skills is approximately 1,400 to 1,700 SY businesses.				

FINANCIAL AND INSURANCE ACTIVITIES

Size of sector	The sector employs 13,650 people in South Yorkshire: 900 in Barnsley, 2,250 in Doncaster, 1,500 in Rotherham, 9,000 in Sheffield (ONS Census data, 2021).
Skills requirement	Employers in the sector report that the main digital skills gaps within their workforce currently are for web content management, social media & digital marketing, and computer programming & software development skills. In the next two years employers will be seeking to upskill their workforce through training for data skills, general office and other software, business process automation, project management and security, privacy & GDPR. Based on the numbers of businesses in this sector responding to the survey who are likely to seek training for employees applied to South Yorkshire's Financial and Insurance Activities sector business population, the potential demand for each these skills is around 500 South Yorkshire businesses.

ARTS, ENTERTAINMENT AND RECREATION

Size of sector	The Arts, Entertainment and Recreation sector employs 12,000 people in South Yorkshire: 1,500 in Barnsley, 3,000 in Doncaster, 2,000 in Rotherham, 6,000 in Sheffield (ONS Census data, 2021).
Skills requirement	Employers in the sector report that the main digital skills gaps within their workforce currently are web content management, digital design and data skills. In the next two years employers will be seeking to upskill their workforce through training for social media & digital marketing, web content management and other software skills. Based on survey responses applied to South Yorkshire's Arts, Entertainment and Recreation sector business population, the potential demand for each these skills is between 600 and 700 businesses.

OTHER SERVICE ACTIVITIES

Size of sector	The Other Service Activities sector employs 10,000 people in South Yorkshire: 1,500 in Barnsley, 2,000 in Doncaster, 1,750 in Rotherham, 4,500 in Sheffield (ONS Census data, 2021).			
Skills requirement	The main digital skills gaps in the current workforce reported by employers in the sector are web content management, data and social media & digital marketing. In the next two years employers in the sector will be seeking to upskill their workforce in social media & digital marketing, other software and security, privacy & GDPR skills.			

REAL ESTATE ACTIVITIES

Size of sector	The Real Estate sector employs nearly 7,000 people in South Yorkshire: 1,500 in Barnsley, 1,250 in Doncaster, 700 in Rotherham, 3,500 in Sheffield (ONS Census data, 2021).		
Skills requirement	The main digital skills gaps in the current workforce reported by employers in the sector are social media & digital marketing, security, privacy & GDPR, specialist computer-controlled equipment and digital design skills. In the next two years employers will be seeking to upskill their workforce in social media & digital marketing, data skills, general office software, other software, business process automation and security, privacy & GDPR.		

AGRICULTURE, FORESTRY AND FISHING

Size of sector	The Agriculture, Forestry and Fishing sector employs 2,900 people in South							
	Yorkshire: 800 in Barnsley, 1,000 in Doncaster, 500 in Rotherham, 600 in Sheffield							
	(ONS data, 2020).							
Skills requirement	The most prominent skills gaps in the current workforce reported by employers							
	in the sector are project management, security, privacy & GDPR, general office							
	software and other software tools skills. In the next two years, employers are							
	likely to seek training for data skills, general office software and other software,							
	social media & digital marketing, web content management and project							
	management, with a potential level of demand of around 600 businesses.							

ELECTRICITY, GAS, STEAM AND AIR CONDITIONING SUPPLY

Size of sector	The Electricity, Gas, Steam and Air Conditioning Supply sector employs 800 people in South Yorkshire: 150 in Barnsley, 75 in Doncaster, 350 in Rotherham, 225 in Sheffield (ONS Census data, 2021).			
Skills requirement	The main digital skills gaps in the current workforce reported by employers in the sector are social media & digital marketing, business process automation and project management skills. Employers will be seeking to upskill their workforce in data skills, general office software, other software, web content management, security, privacy & GDPR, and project management.			

Cohort sizes and delivery modes

South Yorkshire employers are looking for responsive and up-to-date provision, with short courses that quickly upskill employees to address a skills gap whilst limiting the amount of time spent off the job. Demand is lowest for longer programmes and classroom-based training at an external venue, with an overall preference for blended learning approaches for digital skills training, followed by in-house and online training, along with software-provider training.

Most employers anticipate training one to five employees in each digital skill. Demand for larger cohort sizes is seen for general office software, other software, security, privacy & GDPR and data skills. To meet employer needs, education and training providers should offer a range of blended learning options which could include combining online learning modules with in-person or on-the-job training, as well as offering bespoke training solutions to meet the specific needs of individual businesses.

PART 3: Delivering the LSIP priorities

Summary

This LSIP restates and builds upon the recommendations identified within SY's Trailblazer LSIP, highlighting existing good practice that can be replicated and updating previously stated recommendations for the local skills system.

These restated and new priorities are based upon new evidence of digital skills needs but are also informed by the evolution of South Yorkshire's skills ecosystem in the year since the SY Trailblazer LSIP was published. Thousands of employers have engaged in developing this LSIP and the Trailblazer that preceded it. Their insight is incredibly valuable and must be acted on. It is therefore anticipated – based on an agreement between the SY Chambers and SY Mayoral Combined Authority (SYMCA) – that the evidence and recommendations underpinning this plan will form the basis of SY's pending Skills Strategy.

Since the publication of the Trailblazer, South Yorkshire has demonstrated an increased ability to work collaboratively for the benefit of employers and communities alike. This includes being better organised in relation to the development of skills policy and practical delivery. This broad and inclusive skills alliance consists of – but is not limited to – organisations such as SYMCA, local authorities, universities, further education colleges, university technical colleges, skills providers, employers, business representative organisations, the Voluntary sector, business and education partnerships, the Careers Hub, careers advisory services, unions and many others. At the heart of this rebooted partnership is SY's Regional Skills Advisory Board (RSAB) which, following a recommendation in the SY Trailblazer, was formed by merging the SY Skills Advisory Network (known elsewhere as a Skills Advisory Partnership) and Skills Accelerator Board (formed to oversee the LSIP Trailblazer and Strategic Development Fund pilot). SYMCA sponsors this new group ensuring it is resourced and that its work is nested within SY's Strategic Economic Plan (SEP).

The RSAB will – in partnership with the LSIP lead – play a leading role in the development, resourcing and implementation of the recommendations made in this document.

Since publishing the SY Trailblazer, progress has been made against some recommendations. This includes improvements to skills brokerage and signposting, the creation of an Apprenticeship Hub, and an increased emphasis on celebrating success and sharing best practice. Whilst there is not yet sufficient pace to some activity, the progress has been welcomed by SY's employers. Indeed, the employer focus groups and stakeholder engagement that informed this document was largely characterised by positivity and a hope that SY is turning a corner on skills.

There is much good practice already in SY's skills system and much that the region can be proud of. In many cases, the recommendations in this document do not require partners to start from scratch. Instead they require amplification, scalability, improved marketing and resourcing.

It should also be noted that whilst businesses covet agile skills delivery, they want it to take place within the parameters of a relatively stable system. All the recommendations included here would benefit from a long-term approach; this includes the piloting of any new skills delivery which should be tested over periods of time sufficient to build markets and change behaviours.

Longevity is also important because, all too often, SY's skills system has the solutions in situ to the problems and skills gaps reported by employers, but there is often a shortfall in the knowledge or awareness of those solutions. Maintaining programmes and policies over a longer period allows for good reputations and awareness to be built and for employers to make recommendations to their peers. That stated, there is also a need for a step change in relation to proactive business engagement as, simply put, not enough of SY's 45,000 businesses are engaged with skills providers. Employers must take responsibility for their own workforce development, but the region can prompt them

to do that via improved demand stimulation tactics. It is a perennial complaint from employers and often overly stated as a panacea, but improved navigation in the skills ecosystem is also essential.

There is excellent practice in SY's skills system, and the sector is characterised by people who care deeply about employers, learners and SY's economic future, including the need to decarbonise. This statement does not, however, mean that there is no room for improvement when it comes to customer service, aftercare and challenging unwelcome complacency within the system. In many of the diagnostics and discussions conducted to inform this LSIP, it was reported that employers had tried to engage with providers but ultimately given up owing to delays in responding to enquiries or because they could not easily access the information required to make quick decisions. Furthermore, many employers stated that insufficient aftercare resulted in skills being developed but not utilised by their workforces or fully embedded within the business. In addition, whilst most of the provider and stakeholder engagement that informed this LSIP was characterised by collegiality and a desire for continuous improvement, there were also pockets of complacency and defensiveness. For instance, large providers stating that they work with xyz thousand employers already as a way of indicating that there is nothing to learn or no room for improvement. As SY's skills ecosystem develops and partnerships mature, employers and stakeholders alike should feel increasingly comfortable in calling out the minority who are holding back progress by harbouring such attitudes.

Necessarily, much of the LSIP fieldwork and many of the recommendations here focus on SY's skills provider community. However, the role of commissioners in delivering these recommendations and an improved skills ecosystem should not be understated. Suggestions for new programmes or interventions are included later at the end of this chapter; however, some guiding principles can be stated here. Large providers stated that commissioning via SYMCA was, too often, short-term, bureaucratic and untimely – leading to missed opportunities or providers often delivering large schemes at risk. These circumstances undermine trust in the system and there is a pressing need to evolve contractual relationships into bona fide partnerships. The region should also see its devolved Adult Education Budget as a means of freeing up the system. There is an underutilisation of the private sector in skills delivery. The region has a dynamic and well organised private provider community and there are many excellent disruptors in the market. Often, private providers, can deliver the agility and flexibility that their larger counterparts cannot. There is room for both in servicing the needs of employers. Whilst recognising the need to import excellence from wherever it comes and the need for open and transparent public procurement, many consultees felt that the region too often commissioned providers from out-of-area resulting in displacement and reducing the region's ability to develop excellence and capacity. Much more can be done through market development and targeted procurement activity to utilise the capabilities of private providers, localise the region's skills supply chain, and develop SY's capacity to solve its own skills challenges, including the drive to digitalisation and net zero.

This LSIP does not seek to put responsibility for improving SY's skills ecosystem solely on the shoulders of the region's politicians, public sector and provider community. All these partners have a massive amount of agency in delivering the recommendations included in this document, but so too do employers and employer representative organisations. There are many employers in SY that have an exemplar record in achieving success through people development and that also invest significant time and money in developing the region's pipeline of future talent. However, these behaviours are not sufficiently normalised within our business communities and there is a need for employers to invest more into workforce development and for more employers to engage positively with the skills system enabling the hidden talents within our communities to better connect with the hidden careers within our economy. Employer organisations, including the Chambers responsible for this document, play a key role in convening partners and connecting different communities of interest. This document includes many policy recommendations for others to act on, but equally, it includes practical actions that Chambers of Commerce and other business organisations can implement independently. As just one example of this, every employer that provided evidence for this report, will be signposted to organisations and schemes that can help them right now with the challenges they have identified (with a particular emphasis on digital and green skills).

Lastly, some of the biggest players in the digital skills arena are global tech giants such as Google, Apple, Microsoft and their peers. Whilst some within SY's skills system may enjoy relationships with these organisations, it does not appear that SY holistically has a strategic relationship with these massive global actors. Using the convening power of the

region's Mayor and collective reach of our skills ecosystem, it should be possible to engage these organisations in solving our digital skills challenges, maximising our economic potential, and assisting our transition to net zero.

Best Practice

There are many examples of excellent practice within SY's skills ecosystem that should be celebrated and scaled up. Indeed, in general terms, an asset-based approach to addressing skills in SY would help to encourage more employers to engage with providers and give learners of all ages more hope that committing to personal development will lead to positive outcomes and improved life chances.

For illustrative purposes, four projects are highlighted below that are either specifically pertinent to digital skills or have been developed in response to the recommendations of the LSIP Trailblazer. The purpose of presenting these initiatives here is to demonstrate – ahead of listing the final LSIP recommendations – that SY can get itself organised, work collaboratively across sectors, securing resources, making sensible investments, and prioritising the needs of learners and employers.

South Yorkshire Skills

The Strategic Development Fund Partnership led by Barnsley College actioned a series of outputs mapped to the SY Trailblazer priorities and delivered through DfE funding. Initial reviews suggest this work has been effective, building strong relationships between the region's Further Education colleges as well as independent training providers through the South Yorkshire Provider Network. The partnership has responded to the requirement for simpler navigation by providing new ways for employers to access and interact with the skills ecosystem, including developing a central website, 'South Yorkshire Skills' brand, and a standardised approach to engaging with employers around training needs.

The ethos of the partnership has been one of collaboration and pooling expertise, with many activities being provider agnostic and focused on offering choice to employers and options centred on meeting their needs, regardless of which provider partner they engage with. In just three months, the partnership engaged with over 800 businesses, including 580 not previously in the system. Crucially, the sector has self-organised, invested in solutions, and developed this project in a sustainable manner.

The SY Skills brand and website were launched to an audience of providers and employers at the South Yorkshire Skills celebration event in March 2023. This event enabled a wide range of providers from across SY, including FE and HE, independent training providers and specialist institutions, to promote provision to attending employers, with updates on LSIP and shared experiences from learners on Apprenticeship programmes. The SY Skills website will be further developed and promoted. Working in lockstep with LSIP partners, an annual programme of events and activities will be introduced to bring together employers and providers into a live marketplace. This will include a series of expo-type events around the region, and a SY Skills Conference focused on information sharing, collaboration across the provider community and co-creating solutions.

Advancing Digital

Advancing Digital offers funded digital skills training for people who work in South Yorkshire. The programme aims to support career progression, improve performance and productivity or enable career changes. The programme is delivered in partnership by the four Local Authorities and Sheffield Hallam University. Provision is offered at Levels 3 and 4 and above in a range of digital skills. This includes data analytics, web analytics, project management and cybersecurity. Most courses are offered at both beginner and intermediate level to enable learners to progress from a basic to more advanced level of skill. In addition, the programme offers bespoke training.

Though evaluation of the programme is yet to take place, the curriculum and mode of delivery is aligned to the employer needs identified as part of the business consultation for the SY Trailblazer. Promotion and marketing of the programme is an area for improvement but interventions are already underway to improve the reach of this project.

To deliver some courses through the programme, lead partners sub-contract to smaller, more specialist providers to access specific expertise; just one example of how niche providers can play an enhanced role in meeting the region's skills needs.

The Apprenticeship Hub

In response to a SY Trailblazer recommendation and to deliver on the region's commitment to stimulate apprenticeship growth, the SY Colleges Group – supported by SYMCA – is moving forward with plans for an Apprenticeship Hub

The SY Apprenticeship Hub will:

- Help businesses (SMEs in particular) access technical talent across the region to address skill shortages and hard-to-fill vacancies.
- Myth bust misconceptions in relation to apprenticeships (for both learners and employers).
- Create growth opportunities in apprenticeship starts across the region.
- Develop progression pathways (e.g., Study Programmes, T Levels, Employability and Careers programmes, AEB funded provision) into and out of high-quality level 2 and 3 apprenticeships (for example, Higher and Degree Apprenticeships and Higher Technical Qualifications).
- Support development of a public sector approach to apprenticeships including flexi job apprenticeships.
- Identify and secure additional funding to boost apprenticeship activity in the region and ensure the sustainability of the SY Apprenticeship Hub.
- Promote a large scale and high impact apprenticeship campaign, including events that are open to all communities.
- Complement existing activity to raise awareness amongst young people of the benefits of apprenticeships.
- Contribute to the development of the SY Skills Strategy in respect of apprenticeships.
- Work with the Chambers of Commerce to ensure that LSIP activity systematically informs the region's approach to apprenticeships.

Higher Technical Qualifications

Sheffield Hallam University and the SY Colleges Partnership are driving forward a high level framework for collaborative work focusing on Higher Level Skills across the colleges and the university.

The regional offer will reflect priorities for Higher Technical Qualifications, including digital, construction, health and science, business and administration, education and childcare, and engineering and manufacturing. Additionally this will support the implementation and skills impact of the South Yorkshire Institute of Technology.

Regional Partners will be coordinating a recruitment drive through the Skills Injection Fund project, with SHU playing a coordinating role in terms of schools outreach and employer engagement to support College recruitment targets.

Of course, these are not the only examples of good practice in SY. There are numerous examples of organisations, projects, or initiatives that are already contributing to the development of digital skills. Other reasons to feel optimistic about the implementation of the LSIP recommendations include:

- SY is home to world-leading collaboration between academia and blue-chip companies via the Advanced Manufacturing Research Centre (AMRC).
- SY has two excellent universities that are highly engaged with employers and are deeply committed to their civic responsibilities.
- All the region's FE colleges are rated Ofsted Good or Outstanding.
- The SY Colleges Group demonstrates the commitment of our FE sector to working together. The FE and HE sectors also work well together in many areas.
- SY has three successful University Technical Colleges (UTC) that are well regarded by businesses and can boast excellent destination data.

- The region's private provider market boasts some innovative businesses and is well organised and represented via the South Yorkshire Provider Network.
- There is a lot of good careers activity taking place in the region. The Careers Hub is at the centre of this but supported by other well-respected activities and events such as Get Up To Speed and Opportunities Doncaster Live.
- Employers are thinking liberally and laterally about where talent comes from. Projects such as Code Make Win are helping young people access digital jobs and other interventions such as Tech for Troops and partnerships with the criminal justice system are connecting people who all too often are distanced from the labour market with exciting careers.
- Projects and tools such as Skills Bank, Skills Builder and Help to Grow are supporting employers to identify their skills gaps and develop their organisational capabilities.
- SY's voluntary sector, although perennially under-resourced, is vibrant and can provide an excellent route to communities and those wanting to upskill.
- Our region is increasingly well-organised in relation to skills and, working in partnership with the SY Chambers, the Regional Skills Advisory Board is primed to oversee the implementation of the following recommendations.

Recommendations

The fundamental and overarching recommendation of this report is that SY's provider and commissioner community, working through structures such as the RSAB and SYMCA, uses a combination of core funding, devolved Adult Education Budget (AEB) and Local Skills Improvement Funds (LSIF) to respond to the detailed articulation of skills demand, gaps and occupations stated in this document.

Based on insight from over 2,000 businesses and comprehensive desk research, it is evident that the demand for digital skills in SY is growing rapidly, with an increasing number of businesses requiring employees with expertise in areas including:

- Data skills (covering everything from spreadsheets to database management and analytics, building data visualisations, through to more advanced skills that leverage machine learning and data science, and more).
- Social media / digital marketing skills.
- Web content management (covering, for example, website development and content management, and automating workflows).

Over the next 2-5 years 25,000 to 27,000 businesses across each of these skill categories are likely to upskill their staff, yet more than a third say it is hard to find appropriate training.

The information provided in Part Two of this document, as well as the appendices, will allow providers and commissioners alike to understand the region's digital skills gaps holistically but also segmented by sector, size of company, and geography. Informed by constructive feedback about the importance of blended learning, short courses, and customer service, this information should engender a rapid response and create an uptick in the scale, quality and impact of digital skills training in the region.

Of course, the delivery of digital skills training will take place within the parameters of SY's skills ecosystem. These parameters are informed by local and national policy and the macro-economic environment. To create the conditions for success and to make it easier for the businesses, providers, learners, the public sector and voluntary sector to work together to meet digital skills needs and achieve inclusive economic growth, the following recommendations are included as **Local Skills System Priorities**¹.

Navigation and Modern Customer Journeys

1. **South Yorkshire Skills.** Employers have told us that navigating the skills system remains challenging. Increased awareness of available provision will encourage take up and reduce the time and resource required to navigate

¹ A significant number of these recommendations are reassertions of the priorities identified in the SY Trailblazer LSIP. At the time of writing, these have not been enacted but have not been formally dismissed as unworkable by the region's strategic partners. As such, it is appropriate to re-state them here.

the system. Improved navigation will ensure new interventions and commissions are focused on legitimate gaps in the system and do not replicate good but poorly promoted products that exist already. It is therefore recommended that the South Yorkshire Skills platform continues to be developed and promoted.

- 2. Apprenticeships Hub. Employers said it needs to be easier to access and develop technical skills. The emerging Apprenticeships Hub led by SY Colleges is an excellent mechanism that will help businesses access technical talent. It is recommended that the Apprenticeship Hub is now supported by an impactful annual apprenticeship campaign and events programme; it is also suggested that the groundwork is laid to develop Flexi-Apprenticeships whereby employers can spread the risk of employing an apprentice whilst the learner benefits from exposure to different employers, cultures and opportunities. Finally, networks should be established to allow for peer-to-peer support between apprentices.
- 3. All Age Careers. Employers are open to talent wherever it comes from and recognise there is untapped potential in SY's communities. To help stimulate upskilling in the workforce and directly empower communities, it is recommended that a service consistent with the MCA's commitment to all-age careers provision be created to help residents identify and access relevant training and development opportunities.

Proactive Employer Engagement and Co-Design

- 4. Business Engagement and Guidance. Employers have told us that they don't know what they don't know. Many employers face a knowledge gap in understanding digital adoption and how to implement digital road-mapping. This in turn hinders their ability to identify digital skills requirements and achieve business growth. Employers have also told us that they want high quality, easy to access, and up to date advice and guidance on supporting their skills and training development needs, including green skills. To maximise the reach and talents of the sub-region's collective business engagement workforce, and to engage more businesses in the skills ecosystem, it is recommended regular knowledge and development activities be delivered. This will help business-facing colleagues in organisations learn more about skills provision in the area to improve advice, signpost support and drive increased referrals. It is also recommended that these teams are trained to help provide accessible digital and green skills guidance to employers.
- 5. **Hints and Tips.** Employers highlighted that they wanted simple and easy to follow advice to help them more effectively recruit, retain and develop their workforce. It is recommended that an annually refreshed 'how to' guide along with supporting digital assets is produced and sent to each employer in the sub-region including hints and tips and signposting to local agencies that can provide support and assistance in relation to digital and green skills.
- 6. **Peer Support.** Employers want more support from their peers and some anchor employers have committed their willingness to offer help. To help SMEs take a strategic approach to skills planning, it is recommended that a bank of anchor employers is developed to mentor SMEs with high-growth potential specifically in relation to recruitment, retention, and skills development.
- 7. Middle Leaders. Employers said they want more support in maximising talent and increasing the productivity of their current workforce. It is recommended that a programme of short courses be introduced for middle leaders possibly along the lines of Common Purpose or the Help to Grow programme to promote better people management in the sub-region's priority sectors.
- **8. Business Incentives.** Employers want to proactively engage in the skills system and further invest in their workforce, but sometimes this needs incentivising. The feasibility and potential format of such incentives should be explored further.
- 9. **Industry Placements.** Providers have articulated that they want more opportunity to better understand the needs of industry; for example, recognising the scope and application of higher digital skills. It is recommended

that a programme be introduced to provide industry placements for teaching staff and education leaders enabling dual professionalism with employers supporting specialist delivery.

- 10. **Trainer Shortages.** Providers have stressed that there are currently acute shortages of industry specialist tutors within both FE and HE settings. It is recommended that specific campaigns are developed to attract skilled retirees into the education sector including a transition programme to help retain and retrain those who are leaving industry but that could be inspired to lecture or teach.
- 11. Institute of Technology. Employers state higher technical skills are imperative to economic growth and that they would like to see more collaboration within the FE and HE sectors. The Institute of Technology will provide solutions to these issues but is not yet widely understood by employers. Therefore, to help maximise the opportunities afforded by the IoT, it is recommended that a significant marketing campaign is developed to promote the IoT to SY's business communities. This will in turn drive engagement and influence the development of its curriculum.

Responsive Provision and Cutting-Edge Skills Delivery

- 12. **Blended Learning.** Employers have told us that classroom-based learning or learning at training providers' premises is often not suitable. It is therefore recommended that providers and commissioners optimise provision for blended learning approaches, online learning and in-house training.
- 13. Aftercare. Employers have told us that aftercare is important when ensuring that training is embedded and that skills are updated to stay relevant over time. To ensure learners can consistently apply new digital skills to their work and employers see a positive return on investment, it is recommended that post training follow-up becomes a focus for providers and a highly scored component of locally commissioned/procured activity.
- 14. Frontier Skills. Employers have told us that digital training courses are not always fully up to date and informed by the latest industry and subject matter expertise. Consequently, it is recommended to introduce more mechanisms to allow for improved interaction between employers and providers. Through this, it will then be possible to identify the frontier skills and knowledge used by market leaders so that it can be incorporated into course content.
- 15. Customer Service. Employers wanted assurances that they will be quickly supported by the provider network when requesting training and development assistance and that their expectations of swift, supportive and modern customer service will be met. It is recommended that a pledge is introduced enabling providers to publicly commit to rapid response times and modern customer service standards; it is also suggested that customer service becomes a more highly scored component of locally commissioned/procured activity.
- 16. Capacity Building. Providers and employers alike want to see investment into skills capacity retained within the region where possible. It is recommended that SYMCA take steps within its commissioning approach to improve social value returns to the sub-region by increasing the proportion of provision delivered by providers based in SY. This could include ring fencing an element of AEB specifically for small providers and disruptors and should also include proactive market engagement activities such as 'Meet the Buyer' events.
- 17. Events Programme. Employers were unsure of how to influence the skills system and get their voices heard. To develop partnerships and understand business requirements, it is recommended that quarterly expo-type events be introduced to brief providers on the evolving needs of the private sector and connect employers with providers that can meet their digital and green skills needs.
- 18. Jobs Data. Providers would like more regular access to local labour market trends and data to help them respond to the needs of businesses. It is recommended a robust and real time skills data system is introduced and promoted for local use that is fed by jobs boards, recruitment agencies, anchor employers, and SMEs. The

data should be publicly available and proactively sent to providers on a quarterly basis. The SY Data and Intelligence Hub hosted by SYMCA provides a starting point for this facility.

- 19. Language Barriers. Employers and business organisations say it is sometimes hard to translate their skills needs into language and data that is understandable and useful to providers. It is recommended that the provider community produce a standardised set of data and evidence requirements which the business community can easily respond to.
- 20. Incubation and Collaboration Space. Employers have said that they welcome joined up business and skills support. The National College for Advanced Transport and Infrastructure (formerly the High-Speed Rail College) has recently closed its physical premises in Doncaster. It is therefore recommended that local partners engage constructively to reimagine how the building can be redeveloped to meet local skills needs but also to provide a space for business incubation, innovation support, and cross-fertilisation between industry sectors and skills providers via the co-location of like-minded organisations.

Celebrating Success and Making Skills Visible

- 21. Digital Literacy. Employers have told us that digital skills are near universal requirements for even entry-level jobs. The evidence also shows that ICT professions account for some of the largest proportions of job vacancies in SY. Despite this, very few young people are choosing to study ICT-related subjects; indeed, ICT apprenticeships accounted for only 4% of all apprenticeships in 2021/22. It is therefore recommended that, via the Careers Hub and other mechanisms that a campaign be delivered to highlight the importance of digital literacy to all careers whilst also showcasing the variety of hidden careers available in SY.
- 22. Investors in Young People. Employers want a more cohesive route to access emerging talent and promote themselves to labour market entrants as employers of choice. It is recommended that a well marketed and resourced programme along the lines of 'Investors in Young People' is introduced. This should also consider and highlight businesses who are continuously upskilling and re-skilling, providing great places to work and showing a commitment to achieving net zero.
- 23. **Protecting Our Best Projects.** Employers, providers and partners have given examples of best practice that is often reliant on short-term funding. It is recommended that SYMCA and local authorities engage in a conversation about the long-term plans and financial model behind many of these programmes to ensure they are preserved and developed. Get Up To Speed, Opportunities Doncaster Live, CAFÉ, Code Make Win, Code 4000, and Tech for Troops are just some examples of great projects that exist on relatively shoestring budgets.
- 24. Learning and Skills Festival. Employers and providers have told us about the breadth of career opportunities and examples of innovative learning practices happening across SY. It is recommended that an annual and nationally significant 'Learning and Skills Festival' is introduced to promote SY as a beacon for superb career opportunities and its commitment to lifelong learning. The festival could also encourage community-based learning and parental engagement with an emphasis on digital and green skills.
- 25. Measuring Impact. Employers, communities and commissioners alike want to know what difference is being made to the economy and skills system through the investment of public monies. It is recommended that to evidence impact and measure success, a scorecard be produced by the RSAB on an annual basis that highlights what has been achieved, the impact on the local economy and progress against the recommendations included in this document. This should include examples of innovation and creative approaches to digital and green skills.

Promoting Pathways and Releasing Hidden Talent

26. **Gender and Digital Skills.** Employers have told us that they want to harness the talents of all SY's communities, but evidence points to significant inequalities by gender and income to participation in ICT subjects and apprenticeships. Given that businesses are stating that digital skills are essential to most jobs, there is a risk

that gender inequality in the workplace could worsen rather than improve. It is therefore recommended that ICT provision for underrepresented groups is reviewed and that role models and programmes are identified and created to encourage young women and people from poorer socio-economic backgrounds into digital careers.

- 27. Childcare. There are thousands of talented people unable to access or remain in the labour market due to unaffordable or unavailable childcare. It is recommended that SY partners build on recent interventions by National Government to identify ways in which childcare funding and support locally can be enhanced to help parents and carers back into the labour market.
- 28. Older Workers. Employers have told us that employees later in their careers or with limited exposure to technology often find it challenging to keep up with digital advancements. To harness the talents of older workers and those that have been less exposed to technology, it is recommended that tailored support packages are introduced to support those that are later in their careers or potentially returning to the labour market. Amongst others, interventions may include access to peer to peer support networks and reverse mentoring.
- 29. **Ex-Offenders.** Employers are thinking liberally about how they access talent and say they are prepared to give people a second chance. Given SY's high concentration of prisons, it is therefore recommended that further resource is put into connecting employers with the region's prisons and offenders thus ensuring that those leaving the criminal justice system are equipped for the world of work and can access gainful employment. The excellent work done by Code 4000 to train inmates and those on probation to be professional software developers could provide a scalable template for this activity. Many prisons operate strong Employer Boards that local businesses might opt to join.
- 30. **Veterans and Reservists.** Employers and stakeholders say that untapped talent is impacting on skills growth across the sub-region. To create better pathways for veterans and reservists many of whom are well placed to meet the skills needs of local employers it is recommended that a campaign is developed to promote the adoption of the Armed Forces Covenant.
- 31. Labour Market Entrants. Employers have told us that they are concerned by the quality of digital skills among new labour market entrants, particularly in relation to software familiarity and data skills relevant to workplace tasks (for example, CRM, database management and analytics). National surveys have shown that two-in-five employers disagree that young people leaving full time education possess the advanced digital skills they need. To address this, it is recommended that supported by the Careers Hub and other experts that schools and post-16 providers ensure that their digital skills education is better orientated to the software and tasks that are relevant to the modern needs of SY businesses.
- 32. Meaningful Encounters. Employers want to engage more with young people throughout their education and to provide meaningful encounters within the workplace. It is recommended that an annually refreshed 'how to' guide is developed by the Careers Hub and sent to each employer in the sub-region including tips for engaging with schools and colleges and providing meaningful work experience.
- 33. **Primary Careers.** Employers have told us their sectors are often misrepresented in the education system and that their engagement with young people often starts when misnomers and biases have already been embedded in their minds. It is recommended that greater emphasis is placed on linking business to primary education and that the scope of the Careers Hub is broadened to further support the primary sector to avoid misconceptions taking hold at a tender age.
- 34. Bootcamps. Employers maintain that many of the young people they employ, particularly graduates, are not ready for the workplace, thereby placing a burden on the employer to get them up to speed. It is

recommended that 'last mile' Bootcamps – with a focus on work readiness and commerciality – are introduced and made available to all the sub-region's graduates. This would also support graduates into sub-regional SMEs and/or help them develop skills to pivot to hard to fill jobs.

- 35. Micro-Badging and Credentialing. Employers have told us that they often want short unaccredited courses, whilst learners express concerns that this approach makes it hard for them to evidence their learning and development to future employers. Micro-badging and credentialing is often touted as a solution to this but, presently, there is no obvious locally led movement in this direction. It is therefore recommended that SYMCA and local authorities work collaboratively with employers, providers and an appropriate Awarding Body to further develop and pilot the concept.
- 36. **Tech Giants.** Employers told us that a significant amount of the digital training that they access for their workforce is via global tech giants such as Apple, Google, Microsoft, and their peers. It is therefore recommended that SY seeks to build relationships with these tech giants and engage them in upskilling communities, creating more equitable access to opportunities and digital careers, and supporting the region's journey to net zero.

Appendix 1 – LSIP Roadmap

The below grid provides a high-level overview of the partners that might be involved in the implementation of the LSIP Roadmap. It also describes the potential funding mechanisms that might be explored, potential barriers, who would be involved in monitoring progress (this may change subject to which entity commissions activity) and the desirable starting point for these projects and interventions.

In all cases, the first immediate action will be to review the recommendations with partners to ascertain deliverability and prioritisation. This will take place soon after the LSIP receives DfE approval. At this point, starting dates will be adjusted accordingly. The review process will involve the LSIP leads, the Co-Chairs and other representatives from the Regional Skills Advisory Board (RSAB), and senior colleagues from the South Yorkshire Mayoral Combined Authority (SYMCA).

This grid purposefully describes the actionable priorities for improving SY's skills ecosystem. The overarching key action arising out of this LSIP, is for SY's providers and commissioners to align their skills delivery activity with the demand side data articulated in Part Two and appendices of the LSIP. In phase two of the LSIP, the LSIP leads will work collaboratively with providers and commissioners on their individual and collective responses to the demand side data.

Actionable Priority	Potential Partners ²	Potential Funding and Resource ³	Potential Barriers	Monitoring Progress	Timescale / Start Date ⁴
South Yorkshire Skills	SY Colleges Group SYMCA	SY Colleges Group LSIF SYMCA	Revenue Capacity Relationships Displacement	SY Colleges RSAB	Aug 2023
2. Apprenticeships Hub	SY Colleges Group SYMCA	SY Colleges Group LSIF SYMCA	Revenue Capacity Relationships Insufficient Employer Demand Insufficient Apprentices	SY Colleges RSAB	Aug 2023
3. All Age Careers	SYMCA Careers Hub Careers Practitioners Voluntary Sector Unions	SYMCA Local Authorities	Revenue Capacity Relationships Insufficient Client Engagement	RSAB SYMCA Commissioners	Apr 2024

² Providers is used as an inclusive term to denote all types of skills providers (HE, FE, private, not for dividend etc.). Where specific types of providers are listed (i.e. SY Colleges, Universities), the suggestion is that there could be a specific role for these organisations.

³ Procurement will be subject to legal parameters and due process. Publicly funded activity is subject to financial constraints and prioritisation and so this may mean the funding is not available.

⁴ For the most part, three start dates have been included. August 2023 suggests activity should start imminently. Sep 2023 suggests something should start to coincide with the next academic year. Apr 2024 suggests projects will require a degree of resource and development ready to be implemented at some point in the next financial year. The LSIP is agnostic about whether these need to be time-limited or continuous projects as proof of concept will, of course, be required in most cases.

4.	Business Engagement and Guidance	RSAB Business Organisations Local Authorities Universities Providers	SYMCA Local Authorities	Revenue Capacity Relationships Insufficient Employer Engagement	RSAB Business Organisations Commissioners	Sep 2023
5.	Hints and Tips	RSAB Business Organisations Employers Recruiters	SYMCA Commercial Sponsorship	Revenue Capacity Relationships Insufficient Employer Engagement	RSAB Business Organisations	Sep 2023
6.	Peer Support	Business Organisations Employers Universities	SYMCA Local Authorities Universities	Revenue Capacity Relationships Insufficient Employer Engagement	Commissioners	Apr 2024
7.	Middle Leaders	Employers Providers Universities SY Colleges Group SYMCA	Commercial SYMCA	Revenue Capacity Relationships Insufficient Employer Demand	Commissioners	Apr 2024
8.	Business Incentives	SYMCA Local Authorities	SYMCA Local Authorities	Inoperability Revenue Capacity Insufficient Business Take Up	Commissioners	ТВС
9.	Industry Placements	Universities SY Colleges Group Providers Employers	Providers Employers SYMCA	Revenue Capacity Relationships Insufficient Employer Demand Insufficient Trainer Demand	RSAB Commissioners	Apr 2024
10.	Trainer Shortages	Universities SY Colleges Group Providers SYMCA	Providers SYMCA	Revenue Capacity Relationships Insufficient Take Up	RSAB Commissioners	Apr 2024
11.	Institute of Technology	IoT Partners	IoT Partners SYMCA	Revenue Capacity Relationships Insufficient Employer Engagement	IoT Partners	Aug 2023
12.	Blended Learning	Providers Employers	Providers Commissioners	Inoperability Revenue Capacity Inflexibility Insufficient Employer Engagement	Providers Commissioners	Aug 2023
13.	Aftercare	Providers Employers	Providers Commissioners	Inoperability Revenue Capacity Inflexibility	Providers Commissioners	Aug 2023

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14. Frontier Skills	RSAB Universities Providers Employers	Providers Employers	Revenue Capacity Relationships Insufficient Employer Engagement	RSAB Commissioners	Apr 2024
15. Customer Service	Providers Commissioners	Providers Commissioners	Revenue Capacity Inflexibility	Providers Commissioners	Aug 2023
16. Capacity Building	Providers SYMCA Local Authorities Voluntary Sector	SYMCA Local Authorities	Inoperability Revenue Capacity Insufficient Provider Engagement	RSAB SYMCA	Aug 2023
17. Events Programme	RSAB SY Colleges Group Business Organisations	LSIP (Phase Two) LSIF Commercial Sponsorship SYMCA	Revenue Capacity Relationships Insufficient Business Engagement Insufficient Provider Engagement	RSAB Business Organisations	Sep 2023
18. Jobs Data	Providers SYMCA Business Organisations Recruiters	Providers SYMCA LSIF	Revenue Capacity Relationships Inflexibility	Commissioners LSIP	Sep 2023
19. Language Barriers	Providers Business Organisations	LSIP (Phase Two) LSIF	Revenue Capacity Relationships Inflexibility	LSIP	Aug 2023
20. Incubation and Collaboration Space	Local Authorities Providers Employers	Local Authorities	Revenue Capacity Relationships Insufficient Business Engagement Insufficient Provider Engagement	Commissioners Local Authorities	Aug 2023
21. Digital Literacy	Careers Hub Careers Practitioners Schools Business Organisations Voluntary Sector	SYMCA Careers and Enterprise Company Charities and Foundations Tech Giants	Revenue Capacity Insufficient Engagement	Commissioners	Sep 2023
22. Investors In Young People	SYMCA Business Organisations Employers	SYMCA Commercial Charities and Foundations	Revenue Capacity Insufficient Employer Demand	Commissioners	Apr 2024
23. Protecting Our Best Project	RSAB SYMCA Commissioners Delivery Partners	SYMCA Employers Charities and Foundations	Revenue Capacity Relationships	RSAB SYMCA	Aug 2023
24. Learning and Skills Festival	RSAB SYMCA Local Authorities Providers	SYMCA LSIF Commercial	Revenue Capacity Relationships Insufficient Employer Engagement	RSAB SYMCA Commissioners	Apr 2024

	Employers Business Organisations Voluntary Sector Unions		Insufficient Provider Engagement Insufficient Community Engagement		
25. Measuring Impact	RSAB SYMCA	SYMCA Local Authorities LSIP (Phase Two)	Inoperability Revenue Capacity Relationships	RSAB LSIP	Aug 2023
26. Gender and Digital Skills	RSAB Providers SYMCA Local Authorities Business Organisations Voluntary Sector	SYMCA Local Authorities Employers Charities and Foundations	Revenue Capacity Relationships	RSAB Commissioners	Sep 2023
27. Childcare	SYMCA Local Authorities Childcare Sector Unions	SYMCA Local Authorities	Inoperability Revenue	Commissioners	Apr 2024
28. Older Workers	Employers Providers SYMCA Local Authorities Voluntary Sector Unions	Employers Providers SYMCA LSIF	Revenue Capacity Relationships Insufficient Employer Demand Insufficient Learner Demand	Commissioners	Apr 2024
29. Ex-Offenders	Criminal Justice Sector Voluntary Sector Employers	Criminal Justice Sector Charities and Foundations	Inoperability Revenue Capacity Relationships Insufficient Employer Demand	Commissioners	Apr 2024
30. Veterans and Reservists	Armed Forces Covenant Business Organisations Employers Local Authorities Unions	Armed Forces Covenant Commercial Sponsorship SYMCA	Revenue Capacity Relationships Insufficient Employer Demand	Armed Forces Covenant	Sep 2023
31. Labour Market Entrants	SY Colleges Group Careers Hub Schools Business Organisations Employers	Careers and Enterprise Company SYMCA Local Authorities	Revenue Capacity Relationships	Commissioners	Sep 2023
32. Meaningful Encounters	Careers Hub Careers Practitioners Schools SY Colleges Group Business Organisations Employers	Careers and Enterprise Company SYMCA Local Authorities Schools	Revenue Capacity Relationships Not Prioritised by Schools Insufficient Employer Support	Careers Hub Commissioners	Sep 2023

33.	Primary Careers	Careers Hub Careers Practitioners Schools Business Organisations Employers	Careers and Enterprise Company SYMCA Local Authorities Schools	Revenue Capacity Relationships Not Prioritised by Schools Insufficient Employer Support	Careers Hub Commissioners	Sep 2023
34.	Bootcamps	Universities SY Colleges Employers SYMCA	Universities SY Colleges SYMCA LSIF	Revenue Capacity Insufficient Learner Demand	Universities Commissioners	Apr 2024
35.	Micro-Badging and Credentialing	RSAB Providers SYMCA Local Authorities Employers Unions	LSIF SYMCA Local Authorities	Inoperability Revenue Capacity Relationships	Commissioners	Apr 2024
36.	Tech Giants	RSAB Tech Giants Universities Employers SYMCA	Tech Giants Universities SYMCA	Inoperability Revenue Capacity Relationships	RSAB Commissioners	Aug 2023

Appendix 2 – Evidence Base (accompanying document)