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Business West LSIPs

IT and Digital Skills: Nationwide LSIP Analysis Report

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IT and Digital Skills: Nationwide LSIP Analysis Report

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Introduction:

What are LSIPs?

The Local Skills Improvement Plans, or LSIPs, are a Department for Education funded research project seeking to bring together employers, education and training providers and other local stakeholders to set out the key priorities and changes needed in the area to ensure post-16 technical education and training better aligns with business needs.

There are 38 LSIPs running nationally, each seeking to best understand the needs of businesses in their local area. You can find a full list of the LSIPs in the Annex of this report. Through a range of employer engagement activities such as focus groups, interviews and survey responses, roadmaps were created highlighting the priority actions in each LSIP local area that would best respond to the regional skills needs.

Intentions of this report

IT and Digital Skills has been a prominent, recurring theme across the LSIPs nationwide, as well as in the local areas Business West have been researching – West of England and North Somerset, Gloucestershire and Swindon and Wiltshire, with the most reported needs being repeated across all three of these areas. The majority of LSIPs have explored these themes in detail, looking at the divide between Basic and Advanced Digital Skills needs in their local areas, and the impact on their priority sectors.

While there are nationwide reports highlighting digital skills needs such as Tech Nation's > UK Tech in the Age of AI - Tech Nation Report 2024[1] and Lloyds Bank Consumer Digital Index Consumer digital index | Lloyds Bank[2] , each LSIP is conducting their own independent research and developing their roadmaps to best reflect the skills needs in each local area, and we felt it was important to provide an overview of the skills needs identified through the LSIPs to accompany these nationwide publications.

This report seeks to identify any common challenges being faced nationally and to suggest recommendations that could be made on a national level aligned with the reported IT and Digital skills needs.

Scope

While the scope encompasses all LSIPs across England, to ensure that this report delivers on the intentions outlined above, the following restrictions have been put in place:

- **Reviewing only the initial 2023 Local Skills Improvement Plans** – as the sole contractual output for the project, this will provide us with comparable data across all 38 local areas. Whilst some LSIPs chose to publish additional documents such as Findings Updates in the second year of the project (2024), these will not be included in the analysis as they were not produced by every LSIP. Additionally, the 2024 Progress Reports will not be included as the focus of these was to show progress made against the highlighted actions, rather than report additional findings.

[1] Tech Nation (2024), UK Tech in the Age of AI - Tech Nation Report 2024 https://technation.foleon.com/research/tech-nation-report-2024/

[2] Lloyds Bank (n.d.), Consumer Digital Index, available at: https://www.lloydsbank.com/consumer-digital-index.html?srnum=4 (Accessed December 2024)

- **Not reviewing LSIP Trailblazers** – whilst the LSIP Trailblazers [3] were conducted across eight local areas across England, they did provide localised intelligence and so are not fully representative of the national picture so the findings from the Trailblazers will not be taken into account for this analysis.
- **Not including any sector in region data or labour market intelligence** - this has been covered in each local area report and has been taken into consideration when establishing roadmap actions for each LSIP therefore will not be included for this review.
- **Reviewing Digital Skills and IT as both a priority sector and a cross-cutting themes** - as defined by the Employer Representative Body (ERB) conducting the research. Not all LSIPs have selected Digital Skills and IT as a priority sector but do recognise that the skills needs and subsequent impact of skills gaps stretches across sectors.

Methodology

As part of this report, the 'find tool' was used to identify the term 'Digital' in all 38 initial LSIP reports, including variations such as Digital Skills or Digitalisation, and any information relating including these was extracted.

This data was then further reviewed for the following:

- **Basic Digital Skills**
- **Advanced Digital Skills**

While this definition varies depending on LSIP, for the purpose of this report the following definitions have been followed:

- **Basic Digital Skills** – knowledge and skills that are applicable across all job roles at all levels, in all sectors. This includes word processing and spreadsheet skills, diary management and email communication, as well as essential internet skills, such as search engine usage.
- **Advanced Digital Skills** – sector specific knowledge and skills that are not as universally required as the basic digital skills. This could include project management software, CRM databases, AI and digital marketing or more sector specific skills such as software development and programming.

Whilst some LSIPs defined certain Advanced Digital Skills as Basic for specific sectors – for example proficiency in Cyber Security is seen as fundamental in the Digital sector - as this differs based on regional definitions and key priority sectors, this report will be only be referring to skills universally referred to as 'Basic'.

- **Emerging Technologies**

Often mentioned in relation to specific Digital Skills, and usually defined as advanced, by collating the most frequently referenced Emerging Technologies we will be able to gain insight into the skills needed to operate these technologies.

[3] Department for Education (n.d.), Skills accelerator: local skills improvement plan trailblazers and strategic development fund pilots, available at: https://www.gov.uk/government/publications/skills-accelerator-trailblazers-and-pilots/skills-accelerator-local-skills-improvement-plan-trailblazers-and-strategic-development-fund-pilots (Accessed December 2024)

- **Key Challenges**

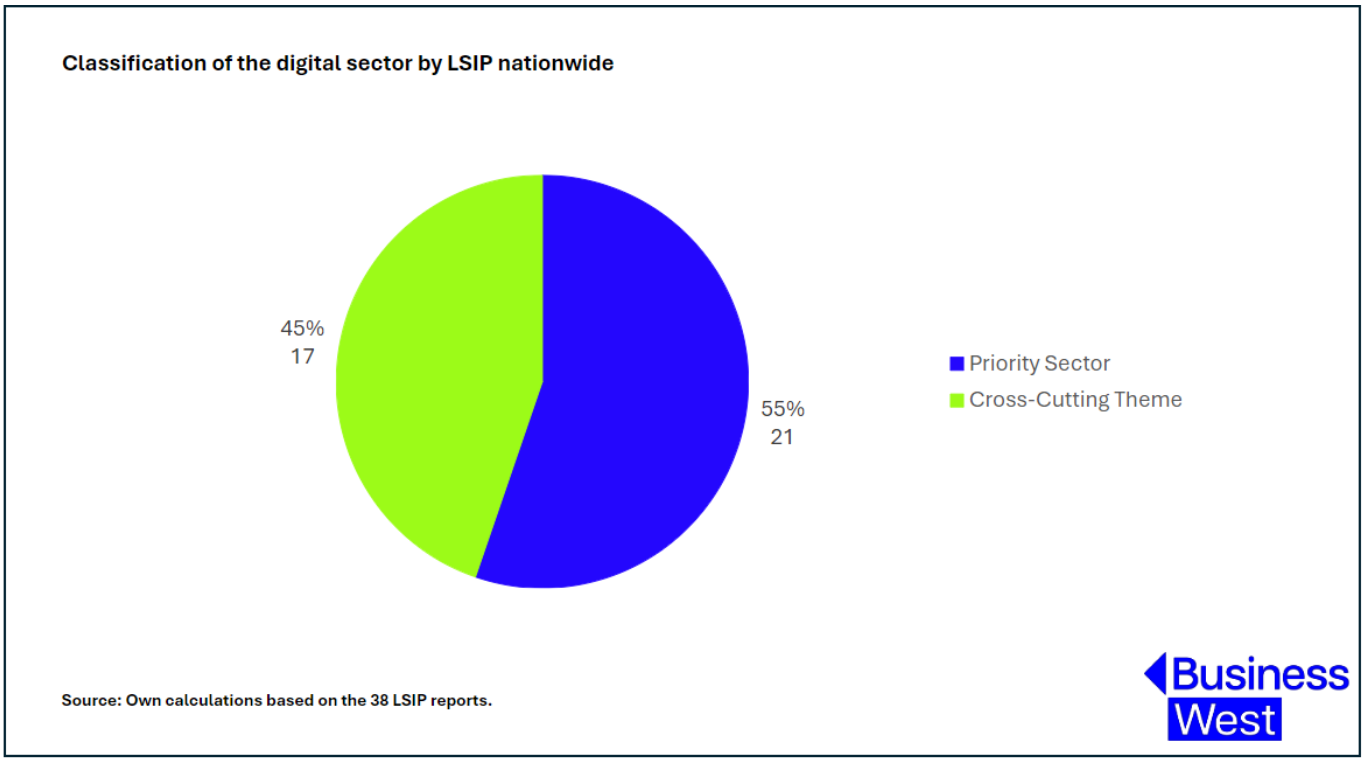
Although all the Digital Skills needs reported are a challenge, some LSIPs have also chosen to highlight other prominent challenges that are aligned to Digital Skills, such as the Gender Skills gap, highlighted in this report.

- **Delivery preferences**

In addition to identifying the skills and training required, many LSIPs also chose to gather data on the preferred methods of training from all parties. These findings are also reviewed in order to establish any trends in favoured training delivery, and how this could relate to some of the key challenges and skills needs identified. The data from the LSIP reports was analysed against these criteria to ensure this report had clear parameters to operate inside of, and did not become a compilation of the reports, which are available online as per project requirements – you can see a list of all LSIP ERBs with links to reports in the Annex of this report.

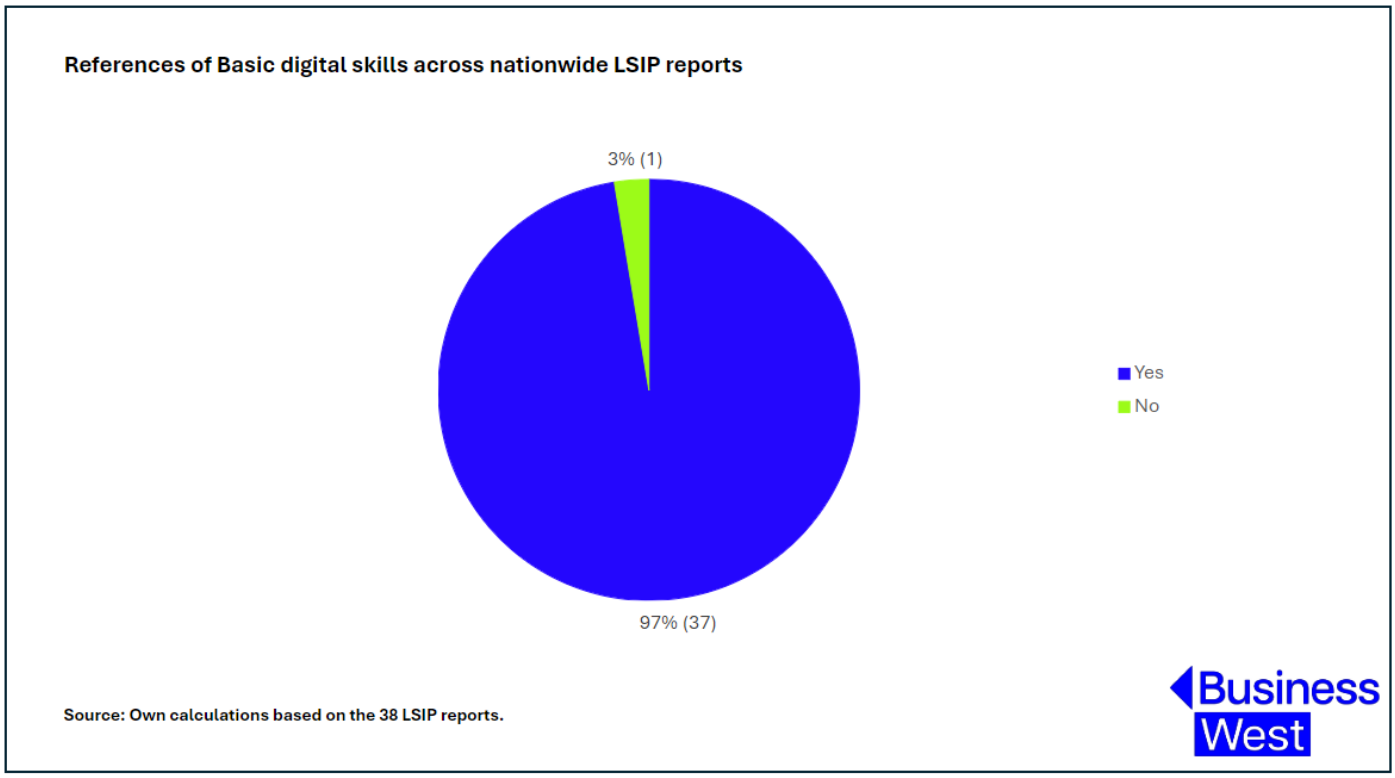
Findings:

Of the 38 LSIPs being delivered nationwide, all highlighted Digital Skills and IT as an area of focus in some capacity. The majority of LSIPs selected Digital as a Priority Sector for their local area, reflecting its prominence as a growing industry; according to Tech Nation's most recent report, the UK tech sector is the number one tech ecosystem in Europe with a combined market valuation of $1.1 trillion in Q1 2024 [4]. However, it should also be acknowledged that all LSIPs highlighting Digital Skills and IT across all sectors illustrates how fundamental these skills are, reiterating the need for solutions to combating skills gaps as highlighted by LSIPs.



[4] Tech Nation (2024), UK Tech in the Age of AI - Tech Nation Report 2024 > UK Tech in the Age of AI - Tech Nation Report 2024

Basic Digital Skills



Basic Digital Skills were referenced in 37 out of the 38 LSIPs, highlighting the need for a review of the provision and training available for Digital Skills at all levels. While there was is a clear demand for training around basic software packages – with Microsoft Office, namely Microsoft Excel, being the most requested – there was also a reported need for support with operating IT equipment, with one LSIP highlighting that employers were reporting staff were unsure how to power up the equipment they were expected to use.

Digital Literacy was a term that featured prominently in the LSIP reports, with 47% stressing the need to ensure all employees are digitally literate. While the definition can vary depending on employer and sector, NHS England defines it as "those capabilities that fit someone for living, learning, working, participating and thriving in a digital society"[5]. Many LSIPs suggested Digital Literacy should be given the same prominence as Maths, English and work readiness skills when highlighting the fundamental skills that would be expected for new recruits entering the workforce, while others suggested that it is often taken for granted that those leaving school will have these essential skills.

However, it should also be addressed that relevant upskilling and reskilling opportunities should be available to those already in work, as well as refresher courses for what we have defined as 'basic' digital skills, to ensure that the current and future workforce are all supported to become, and remain, digitally literate. In their 2024 UK Consumer Digital Index and Essential

[5] Health Education England (n.d.), What is digital literacy?, available at: https://digital-transformation.hee.nhs.uk/building-a-digital-workforce/digital-literacy/what-is-digital-literacy (Accessed December 2024)

Digital Skills report, Lloyds Bank have found that 16.8 million people are in the Low and Very Low Digital Capability Segments [6], this equates to 50% of the current active workforce[7].

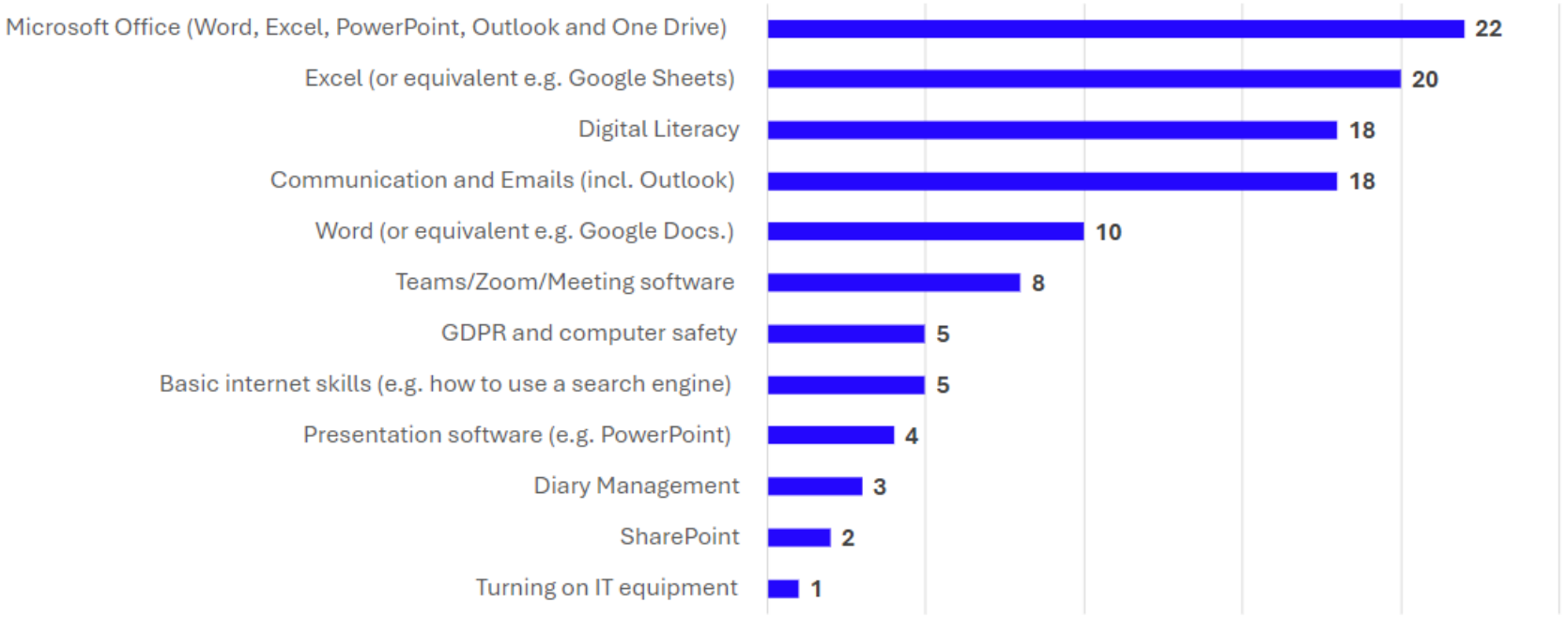
While Digital Literacy was a recurring theme throughout many LSIP reports, Digital Poverty was also highlighted as a challenge facing the current and future workforce. For many, the access to basic IT and Digital equipment such as a desktop computer or laptop is the fundamental barrier to gaining the essential IT and Digital Skills that have been reported by employers as needed. Ensuring access to basic IT equipment throughout education will not only ensure the future workforce has the required basic skills, but also have the confidence to use equipment effectively. Multiple LSIPs reported concern that the lack in confidence when using IT equipment which is compounded through lack of regular access and could be a reason why there is a reported reluctance to engage with training if it is made available.

[6] Lloyds Bank (n.d.), Consumer Digital Index, available at: https://www.lloydsbank.com/consumer-digital-index.html?srnum=4 (Accessed December 2024)

[7] House of Commons Library. (2020, October 12). The NHS in England: An overview. House of Commons Library. Retrieved December 13, 2024, from https://researchbriefings.files.parliament.uk/documents/CBP-9366/CBP-9366.pdf

Below you can find a full breakdown of the identified Basic Digital Needs as highlighted in LSIPs nationwide. Relevant categories have been grouped together for example Teams, Zoom and other Meeting software. Definitions of these Skills Needs can be found in the Glossary of this report.

Basic digital skills needs highlighted in nationwide LSIP reports



Source: Own calculations based on the 38 LSIP reports.

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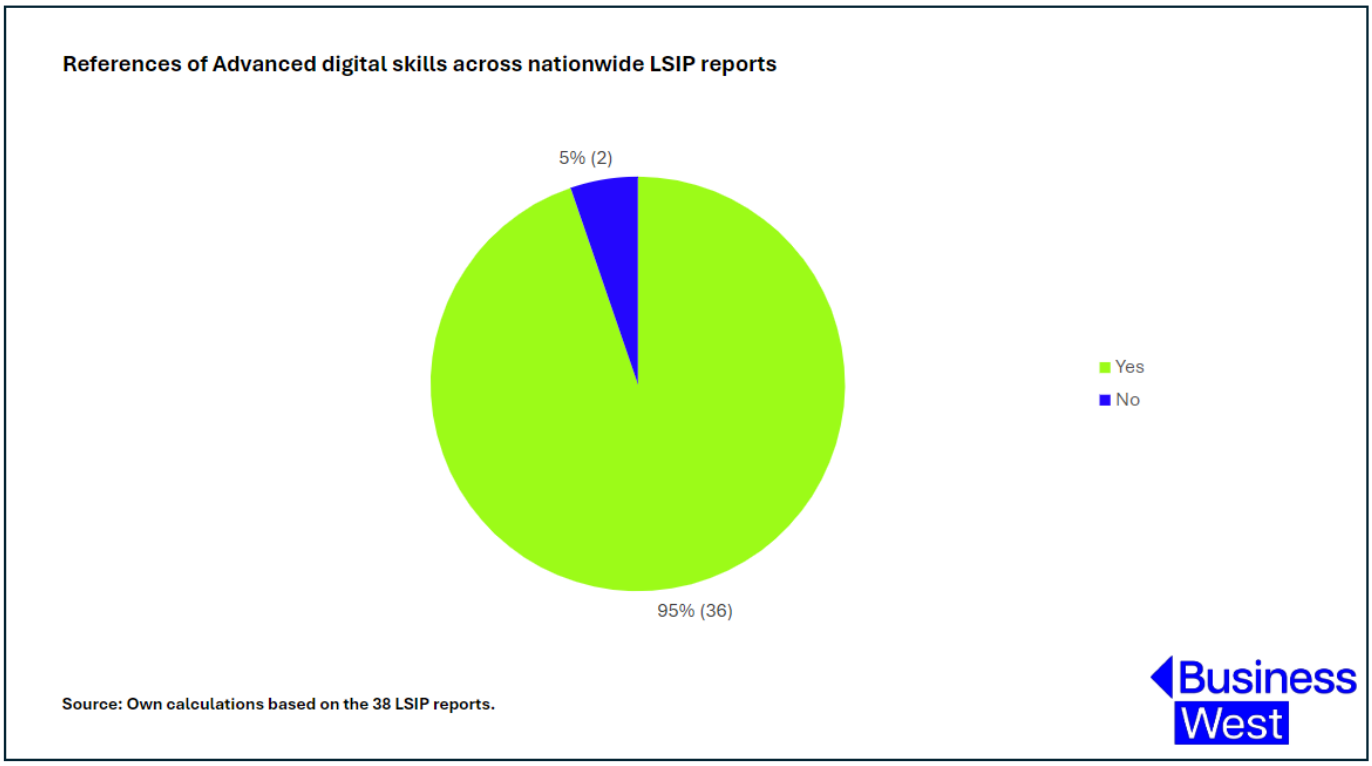
Advanced Digital Skills

Compared to the 97% who reported Basic Digital Skills, 95% referenced Advanced Digital Skills in their reports.



The most commonly reported skills needs were Software Development and Programming (82%), Digital Marketing and Social Media (76%) and Data Analysis (76%). There was also a high demand for AI (66%) and Cyber Security and Infrastructure (61%).

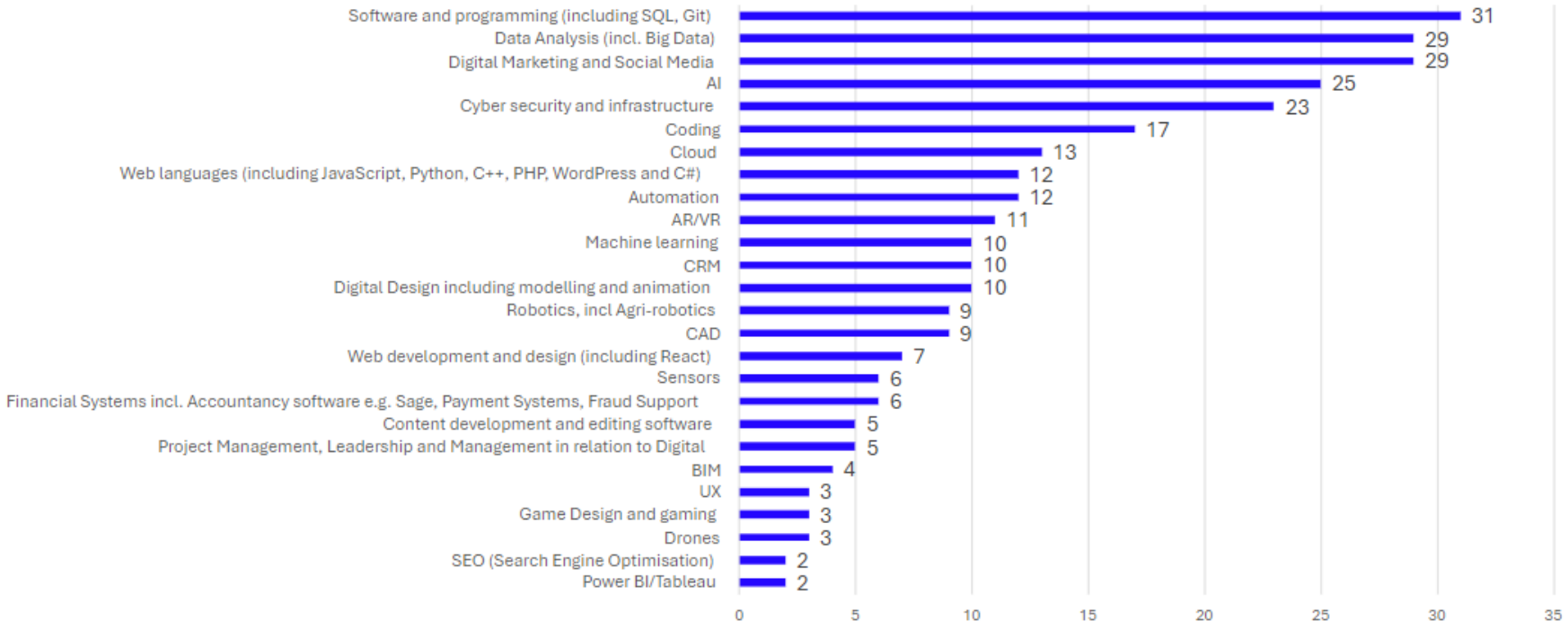
Despite this, the particular skills gaps LSIPs are reporting are more varied, and often reflect the priority sectors that the LSIPs are researching. This could potentially be as a result of Digital Skills and IT being a Cross-Cutting Theme for many LSIPs, and therefore it featured in all sectoral research, not just LSIPs who had chosen to focus on the Digital and IT sector. As well as a focus on more general, cross sectoral skills such as Coding and Data Analysis, training gaps were highlighted in sector specific areas such as Construction and the Built Environment (BIM – 6%), Creative Industries (Game Design – 8%) and Agriculture (Robotics and Agri-Robotics – 24%), however with more sector, and often job role or organisation, specific training needs it is harder to establish a nationwide picture of demand compared to the more transferable advanced digital skills.

The following skills were reported as needed by employers, however each only featured in one LSIP nationwide:

- Sales platforms and packages
- Networking
- Metaverse
- Organisational Systems
- Product Design
- Systemisation
- Dashboards
- Mobile Apps
- VFX
- 3D Printing

Below you can find a full breakdown of the identified Advanced Digital Needs as highlighted in LSIPs nationwide. Relevant categories have been grouped together, for example Web languages have been consolidated. Definitions of these Skills Needs can be found in the Glossary of this report.

Advanced digital skills needs highlighted in nationwide LSIP reports



Source: Own calculations based on the 38 LSIP reports.

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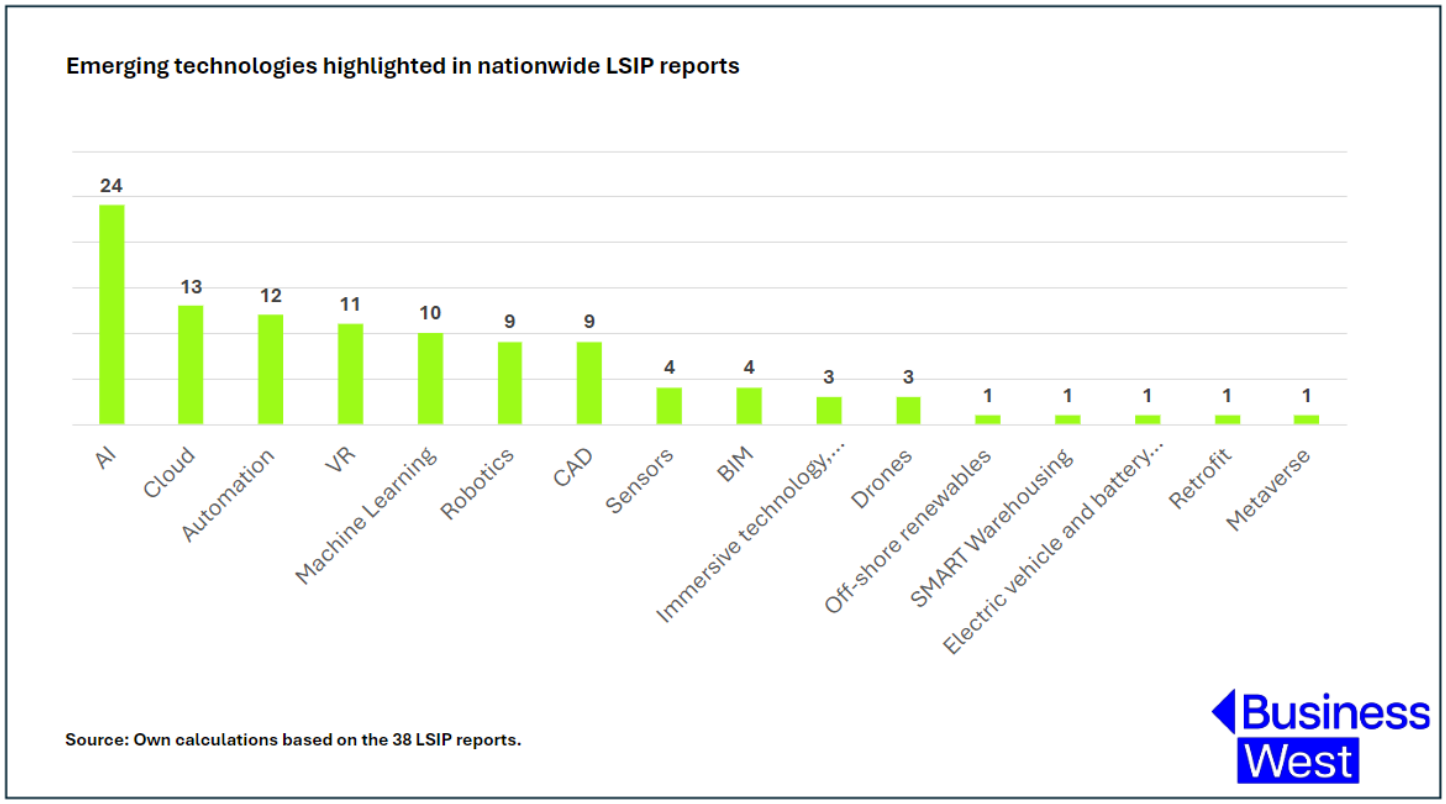
Emerging Technologies

The UK technology sector continues to grow, becoming only the third country globally to reach a valuation of over $1 trillion [8] behind USA and China, as well as becoming the top country in Europe for AI investment[9], so it is not a surprise that employers nationwide are reporting Skills Needs linked to Emerging Technologies.

These technologies often complimented the reported advanced digital skills gaps, with AI, Cloud and Automation being the most frequently mentioned Emerging Technologies by employers.



LSIPs also highlighted technologies that employers are aware of, but are not currently reporting as significant skills gaps, these skills tend to be more sector specific such as Retrofit and Off-shore renewables for the Construction and Built Environment sector. However, it could be argued that these skills not being seen as a priority need could be due to employers not fully understanding the technology and how it can support their business as "there is low public

[8] Artificial Intelligence Sector Information (n.d.), Artificial intelligence (AI), available at: https://www.great.gov.uk/international/investment/sectors/technology/#:~:text=Artificial%20intelligence%20(AI),%2Dups%20and%20scale%2Dups (Accessed December 2024)

[9] The Business Magazine (n.d.), UK tech sector is No. 1 in Europe, available at: https://thebusinessmagazine.co.uk/technology-innovation/uk-tech-sector-is-no1-in-europe/#:~:text=The%20UK%20is%20top%20in,the%20future%20of%20UK%20tech (Accessed December 2024)

awareness of green skills and the available training options, which has been attributed to inconsistent definitions for green skills."[10].

Employees may also not be highlighting the need for upskilling or reskilling, especially in the green skills with Business in the Community (BITC) finding that "only one in four working-age adults in the UK believe that their job will require new skills"[11] as a result of climate change, whether this is a directly involved role such as energy efficiency or indirectly such as finance or HR processes.

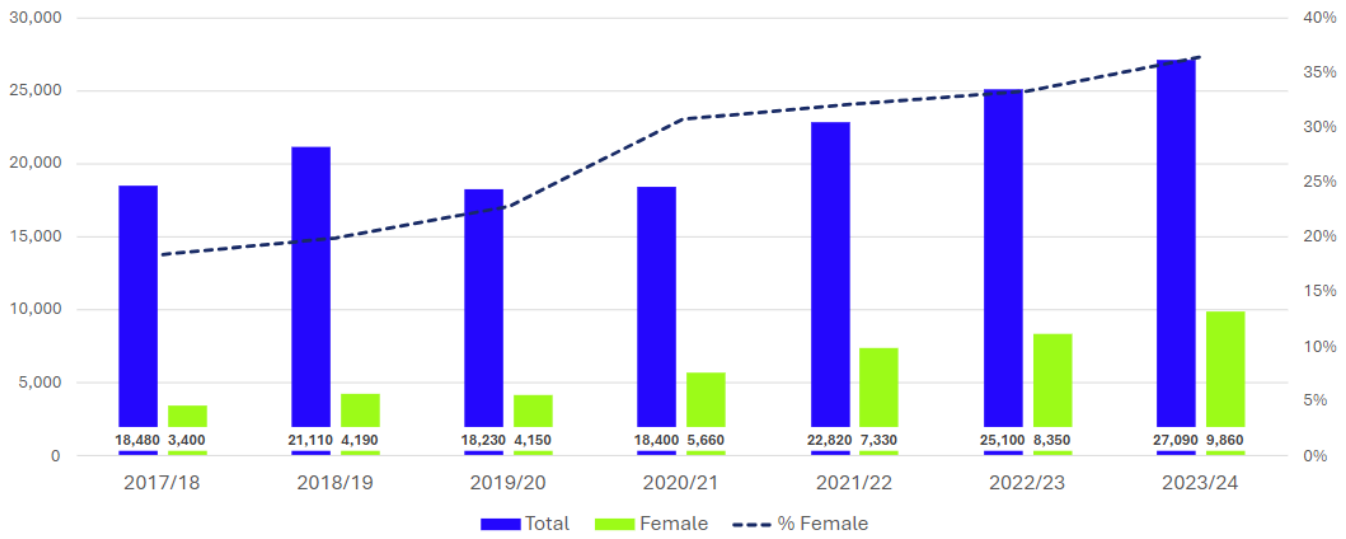
[10] Simmonds, P. and Lally, C. (2024), Green skills in education and employment, POSTnote 711, 18 January, available at: https://researchbriefings.files.parliament.uk/documents/POST-PN-0711/POST-PN-0711.pdf (Accessed December 2024)

[11] Business in the Community (2022), Only one in four UK workers believe they will need new skills as a result of climate change, available at: https://www.bitc.org.uk/news/only-one-in-four-uk-workers-believe-they-will-need-new-skills-as-a-result-of-climate-change/ (Accessed December 2024)

Key Challenges

- **Gender Skills Gap** - multiple LSIPs highlighted that Digital and IT course take up is predominantly skewed towards male learners. As employers across all sectors are highlighting the need for IT skills in all roles, this could potentially create a gender skills gap in the future. The graph below shows that while the female apprenticeship enrolments in Information and Communication Technology have steadily increased over the last 6 academic years, they still account for less than 50% of the overall starts. However, it should be noted that in the 2020/21 academic year that was impacted by Covid19, overall apprenticeship starts remained largely the same as the previous year, but female enrolments in Information and Communication Technology continued to rise, suggesting that although there is a gender gap, there is a demand from female learners for these topics.

Apprenticeships starts in Information and Communication Technology in England between 2017/18 and 2023/24



Source: DfE (2024), Apprenticeships, Academic Year 2023/24).

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The South Yorkshire LSIP reported "those in occupations at highest risk from automation today are most likely to be women and the youngest and oldest age groups." [12]. According to the UK's government most recent apprenticeship starts data, 36% of new starters in Information and Communication Technology courses were female in 2023/24 [13]. So, in light of this research, it can be noted that not only are women less likely to

[12] South Yorkshire Local Skills Improvement Plan (2023), Digital skills final report, available at: https://growthzonecmsprodeastus.azureedge.net/sites/1992/2023/08/South-Yorkshire-Local-Skills-Improvement-Plan-Digital-Skills-Final-0e81e9d6-7929-4a32-8223-6d17af93ac07.pdf (Accessed December 2024)

[13] • GOV.UK (n.d.), Subjects - Starts, Achievements, Enrolments by Age, Sex, Ethnicity, LLDD, SSA, Detailed level, Standard-framework name and code, Permanent data table, available at:

engage with IT training, but they are also more likely to find their roles impacted by emerging technologies. IPPR reported "secretarial, customer service and administrative roles."[14] are at the highest risk of disruption, and "women are more likely to be in such jobs, which means they will be among the most affected"[15] following an analysis of 22,000 tasks across all job roles and sectors.

- **Perceived Age Skills Gap** – many LSIPs reported there is a general perception that the older workforce across all sectors is reluctant to learn about IT or embrace emerging technologies. While Business in the Community acknowledge that "most [older workforce] are not benefitting from the work opportunities that the digital revolution offers"[16] they go on to explain that employers are not training staff in "technical skills that they need to succeed in the digital era"[17] and older workers are also "less likely than younger workers to feel their employer informs them about the impact of automation and technology on their role."[18]

  In contrast, the younger workforce is expected to be highly digitally literate – with the term 'digital native' meaning someone who was born into a digital world, being mentioned by numerous LSIPs. This could create a potentially widening skills gap due to a reluctance to accept training opportunities, The King's Trust: Decoding the Digital Skills Gap found that "42 per cent [of young people in the UK] do not think digital skills will be essential to their career"[19].

  It is essential the appropriate training is being offered to the relevant parties to ensure they are adequately skilled to carry out their roles, and any prejudice and assumptions on their knowledge and skill level based on their age group is challenged.

- **Pace of change** – many LSIPs report a lack of adequately trained staff in Further Education, and the pace in which the digital skills and technology evolve are a major barrier to the delivery of fundamental Digital and IT skills. LSIPs summarised that training is often falling short of employer need and learner expectation, explaining that it

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https://www.gov.uk/government/news/prime-minister-overhauls-apprenticeships-to-support-opportunity (Accessed December 2024)

[14] Institute for Public Policy Research (2024), Up to 8 million UK jobs at risk from AI unless government acts, available at: https://www.ippr.org/media-office/up-to-8-million-uk-jobs-at-risk-from-ai-unless-government-acts-finds-ippr (Accessed December 2024)

[15] Institute for Public Policy Research (2024), Up to 8 million UK jobs at risk from AI unless government acts, available at: https://www.ippr.org/media-office/up-to-8-million-uk-jobs-at-risk-from-ai-unless-government-acts-finds-ippr (Accessed December 2024)

[16] Business in the Community (2020), Age and the ageing workforce in the digital era, available at: https://www.bitc.org.uk/wp-content/uploads/2022/12/bitc-report-age-ageing-worforce-digital-era-march20.pdf (Accessed December 2024)

[17] Business in the Community (2020), Age and the ageing workforce in the digital era, available at: https://www.bitc.org.uk/wp-content/uploads/2022/12/bitc-report-age-ageing-worforce-digital-era-march20.pdf (Accessed December 2024)

[18] Business in the Community (2020), Age and the ageing workforce in the digital era, available at: https://www.bitc.org.uk/wp-content/uploads/2022/12/bitc-report-age-ageing-worforce-digital-era-march20.pdf (Accessed December 2024)

[19] Kings Trust (n.d.), Decoding the digital skills gap report, available at: https://www.kingstrust.org.uk/about-us/news-views/decoding-digital-skills-gap-report (Accessed December 2024)

is often hard for training providers and education to deliver relevant provision, while the rate in which some skills and knowledge becomes redundant would create a barrier for employers to upskill if there was no permanent gain.

- **Digital Poverty** - ensuring essential skills are embedded in education allowing all to have a robust, basic skillset would provide a good foundation for further learning. It is also important to ensure that access to basic Digital and IT equipment and training is available to all age groups, including those already in the workplace, promoting lifelong learning and ensuring skills remain relevant to evolving job roles. Connected with this, many LSIPs have also reported that confidence when using IT is a considerable hurdle. By ensuring that equipment is accessible to all and allowing all workers to gain confidence in the basic equipment and programmes, would create a strong foundation and likely encourage workers to embrace emerging technologies and perhaps pursue more advanced digital skills.

Delivery preferences

While not all LSIPs have commented on the preferred delivery methods of training for the employers they have spoken to, fifteen of the thirty-eight LSIPs did expand on their findings, however there was not a consensus in terms of preferred methods of training delivery.

47% of the fifteen LSIPs that collected data on delivery methods found a preference for short courses and modular training, with Bootcamps being the second preference (40%). Upskilling opportunities were highlighted by 20%, illustrating a potential change in skills needed in the current workplace, but also a positive indication of training being continued within the workplace, after the completion of mandatory education. A third of the fifteen LSIPs stressed the importance of tailored delivery, where the content was created bespoke to either the sector or the recipients.

Integration of Digital Skills and IT into the curriculum was highlighted by 27% of the fifteen LSIPs commenting on preferred delivery methods, although this was not broken down into whether Basic or Advanced Skills should be integrated.

The following factors were highlighted by 20% of LSIPs who highlighted delivery preferences as considerations when selecting their training opportunities:

- Flexibility
- Accessibility
- Blended/Hybrid Approach
- Adaptability

While hybrid was the most frequently mentioned preferred delivery method compared to online (13%) or in-person (7%), it should be noted that the LSIP that stated a preference for in-person delivery highlighted that this was the preferred method of training for those lacking in confidence. 7% of LSIPs also flagged employers' preference for a self-directed approach to training. It was also highlighted that some sectors benefit from a more in-house approach to training, delivered by internal staff to their colleagues, rather than an external organisation, with South Yorkshire LSIP noting "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.".[20]

Kent and Medway LSIP highlighted the need for identifying progression routes and supporting progression opportunities, especially in the Construction sector where employers "highlighted the need to create an inspiring and engaging set of professional development opportunities to enable career progression"[21]

Hertfordshire LSIP also reported the need for funding support with employers highlighting the need to make "upskilling staff as easy and cost effective as possible"[22], Hertfordshire LSIP also acknowledged that existing systems are not working "the apprentice scheme we have used is just not good enough"[23], however a reform of the apprenticeship system was announced by the government in September 2024[24] which may address some of the issues employers in this area had.

Summary and Recommendations:

It is clear from the LSIP data collected nationwide that Digital and IT Skills that there is a clear divide between the basic and advanced needs. There was more of a consensus when looking at the basic skills needs, with the majority of LSIPs highlighting general software packages such as Microsoft Office or a particular soft skill and its digital equivalent for example communication and emails, namely Outlook. However, the Advanced Skills Needs reported, and by extension the emerging technologies, were more bespoke and often more sector specific such as Agri-Robotics or Digital Design.

- Basic Digital Skills: most reported needs, in order of priority
    - Microsoft Office (Word, Excel, PowerPoint, Outlook and One Drive)
    - Excel (or equivalent e.g. Google Sheets)
    - Communication and Emails (incl. Outlook)
    - Digital Literacy
- Advanced Digital Skills: most reported needs, in order of priority
    - Software and programming (including SQL, Git)
    - Digital Marketing and Social Media
    - Data Analysis (incl. Big Data)

[20] South Yorkshire Local Skills Improvement Plan (2023), Digital skills final report, available at: https://growthzonecmsprodeastus.azureedge.net/sites/1992/2023/08/South-Yorkshire-Local-Skills-Improvement-Plan-Digital-Skills-Final-0e81e9d6-7929-4a32-8223-6d17af93ac07.pdf (Accessed December 2024)

[21] Kent & Medway Local Skills Improvement Plan (2023), LSIP 2023: Kent and Medway Plan Annexes, available at: https://kentemployerskillsplan.org/wp-content/uploads/2024/08/LSIP-2023-Kent-and-Medway-Plan-Annexes.pdf (Accessed December 2024)

[22] Hertfordshire Local Skills Improvement Plan (2023), LSIP Report: Herts, available at: https://static1.squarespace.com/static/5f3b836e6ef14d79290e4606/t/673320f9d6f3c20ae97c5246/1731404036813/Report_Herts+LSIP_13.09.23.pdf (Accessed December 2024)

[23] Hertfordshire Local Skills Improvement Plan (2023), LSIP Report: Herts, available at: https://static1.squarespace.com/static/5f3b836e6ef14d79290e4606/t/673320f9d6f3c20ae97c5246/1731404036813/Report_Herts+LSIP_13.09.23.pdf (Accessed December 2024)

[24] UK Government. (2024, December 12). Prime Minister overhauls apprenticeships to support opportunity. GOV.UK. from https://www.gov.uk/government/news/prime-minister-overhauls-apprenticeships-to-support-opportunity (Accessed December 2024)

- Emerging Technologies: most reported needs, in order of priority
    - AI
    - Cloud
    - Automation
- Delivery preferences: most reported needs, in order of priority
    - Short courses/Modular Training
    - Bootcamps
    - Tailored Delivery

There were many skills needs highlighted in both the Basic and Advanced criteria, however as the Advanced needs differed more based on area and priority sector, to ensure that the recommendations from this report are nationally applicable, they will focus more on the basic needs.

- **Information and Communication Technology** - although now largely referred to as Digital or IT Skills, as the ability to use technology to communicate effectively – primarily through emails – was the third most reported basic need by LSIPs nationwide, it is recommended that this is reflected in both the curriculum and the terminology, reverting to the previous description of ICT, Information and Communication Technology.

  This change originally occurred in September 2012, in response to the government at the time stating that the ICT curriculum was "demotivating and dull", with the new curriculum being designed in collaboration with universities and industry to ensure young people are "able to work at the forefront of technological change"[25]. While this was a popular change at the time, from the LSIP research it appears that the focus on more advanced Digital Skills in the curriculum has resulted in basic skills gaps. The integration of communication skills into the curriculum would also improve communication generally, which has also been a recurring theme when looking at 'soft' or transferrable core skills across LSIPs.

- **Gender Skills Gap or Digital Poverty** - in collaboration with EDI initiatives to review and put measures in place reduce any existing gaps and to minimise any future skills gaps. Initiatives to promote the importance of Digital and IT Skills, as well as extended training opportunities and career pathways, to females and lower socio-economic groups to ensure support and guidance is accessible and available to all.

- **Integration of basic IT skills within curriculum** – with the majority of LSIPs highlighting Basic Digital and IT Skills as a skills gap in their workforce, it is essential that these fundamental skills should be integrated back into the curriculum to ensure that all new entrants to the workforce are equipped with the basic digital skills they need to fulfil their job roles. With some employers stating that they've had new recruits unsure of how to turn a laptop on or use a mouse, a 'back to basics' approach towards IT equipment and basic computers programmes – most notably Microsoft Office - is the best resolution to ensuring these essential skills are readily available and accessible to all.

[25] BBC (n.d.), Education news, available at: https://www.bbc.co.uk/news/education-16493929 (Accessed December 2024)

- **Support with identifying training opportunities** – employers reported needing help to identify appropriate training (and where to find this training), career progression guidance and how to access funding support. A centralised hub, of national and regional services and support, would allow employers, employees and those looking to rejoin the workforce to identify appropriate training that meets the individuals, and the company's needs, especially as emerging technologies are evolving. Skills Connect from West of England Combined Authority provides training, skills and career support available in the West of England area supporting over 10,000 people of all ages in the local area ever year[26].

- **Short courses and Modular training** – the employer's preference for training delivery was short courses and modular training, as well as bootcamps. While it is important that basic digital skills be integrated into the curriculum, it should also be acknowledged that those already in the workforce may benefit from upskilling or refreshing these skills, as well as learning new skills that may be beneficial as society continues to evolve towards a more digital approach. Therefore, it is recommended that a variety of short courses are available for upskilling and reskilling in a variety of modules, covering topics from Basic (Microsoft Office) to more Advanced skills (for example, software programming, data analysis and web languages).

[26] Skills Connect (n.d.), Skills improvement resources, available at: https://www.skillsconnect.org.uk/ (Accessed December 2024)

Glossary:

- **Local Skills Improvement Plan (LSIP)** - a document developed by local employer representative bodies (ERBs) in collaboration with education providers, employers, and stakeholders to align skills provision with the needs of the local economy. LSIPs focus on addressing skills gaps and ensuring the workforce is prepared for emerging and key sectors within the region.
- **Priority Sector** - an industry or area of economic activity identified by LSIPs as critical for a local area's growth and development.
- **Cross-Cutting Theme** - an area of focus that spans multiple sectors, for example sustainability and net zero, equality, diversity and inclusion, and digital skills.
- **Digital Literacy** - the ability to effectively use digital technologies, tools, and platforms for living, learning and working in a digital society.
- **Digital Poverty** - the lack of access to necessary digital tools, such as devices, software, and reliable internet connectivity, coupled with limited digital literacy skills.
- **Digital Native** - a person who has grown up in the digital era and is typically comfortable using devices, the internet, and digital platforms from an early age.

Identified Skills Needs:

- **Microsoft Office (Word, Excel, PowerPoint, Outlook)** - a suite of productivity tools used for document creation, data organisation, presentations, email communication, and cloud storage:
    - **Word (or equivalent, e.g., Google Docs)** - software for creating and editing text documents.
    - **Excel (or equivalent, e.g., Google Sheets)** - spreadsheet software for data organisation, analysis, and visualisation.
    - **PowerPoint** - presentation software for creating slideshows and visual aids.
    - **Outlook** - email and calendar management software.
- **Teams/Zoom/Meeting Software** - platforms for virtual meetings, collaboration, and communication.
- **SharePoint** - a collaborative platform for document management.
- **Basic Internet Skills -** fundamental skills like using search engines and browsing online resources.
- **Diary Management** - software or skills for scheduling and managing appointments.
- **CRM (Customer Relationship Management)** - tools for managing a company's interactions with current and potential customers.
- **GDPR and Computer Safety** - knowledge of General Data Protection Regulation (GDPR) and practices for ensuring cybersecurity and data protection.
- **Software and Programming (incl. SQL, Git)** - skills in using software development tools and version control systems:
    - **SQL (Structured Query Language)** - a programming language specifically designed for managing and manipulating relational databases.
    - **Git** - a distributed version control system designed to track changes in source code and other files during software development
- **Coding** - writing code in programming languages like Python, JavaScript, C++:
    - **Python** - a general-purpose programming language known for its simplicity, readability, and versatility.

    - **JavaScript** – a programming language primarily used for creating interactive and dynamic features on websites.
    - **C++** - a general-purpose programming language that supports procedural, object-oriented, and generic programming paradigms.
- **Web Languages:** programming and markup languages for web development (e.g., JavaScript, Python, PHP, C++, C#, WordPress):
    - **PHP** - a server-side scripting language designed specifically for web development but also used for general-purpose programming.
    - **C#** - a programming language developed by Microsoft as part of its .NET ecosystem.
    - **WordPress** - an open-source content management system (CMS) that enables users to create, manage, and maintain websites easily.
- **Web Development and Design (incl. React)** - skills in building and designing websites and web applications:
    - **React** - a popular open-source JavaScript library used for building user interfaces (UIs), particularly for single-page applications where content updates dynamically without needing to reload the entire page.
- **Cloud** - technologies for storage, computing power, and services over the internet.
- **Automation** - using technology to perform tasks without human intervention.
- **AI (Artificial Intelligence)** - machines that mimic cognitive functions such as problem-solving:
    - **Machine Learning** - a subset of AI where algorithms learn patterns from data to make predictions or decisions.
- **Augmented Reality (AR) and Virtual Reality (VR)** - technologies for immersive digital experiences.
- **Digital Design (incl. Modelling and Animation)** - creating visual content and 3D models for various applications.
- **Immersive Technology** - technologies like digital simulation and virtual environments.
- **Drones** - unmanned aerial vehicles used for various applications, from delivery to data collection.
- **BIM (Building Information Modelling)** - a digital representation of a building's physical and functional characteristics.
- **Robotics (incl. Agri-robotics)** - machines designed to perform tasks autonomously or semi-autonomously, including applications in agriculture.
- **Metaverse** - a virtual-reality space where users interact with a computer-generated environment and other users.
- **Financial Systems (e.g., Sage)** - accounting and financial management software:
    - **Sage** - a range of software solutions designed to help businesses manage various aspects of their operations, including accounting, payroll, human resources, enterprise resource planning (ERP), and customer relationship management (CRM).
- **Content Development and Editing Software** - tools for creating and refining digital content.
- **Game Design and Gaming** - skills and tools for developing and designing video games.
- **Power BI/Tableau** - tools for data visualization and business intelligence.
- Data Analysis (incl. Big Data) - the process of examining large datasets to discover trends and insights:

    - **Big Data** - large and complex sets of data that cannot be easily processed, analysed, or managed using traditional data-processing methods or tools.
- **Cybersecurity and Infrastructure** - practices and systems to protect networks, devices, and data.
- **Sensors** -devices that detect and measure physical properties for various applications.
- **Digital Marketing and Social Media** - strategies and tools for promoting products and services online.
- **SEO (Search Engine Optimisation)** - techniques to improve website visibility on search engines.
- **CAD (Computer-Aided Design)** - software for designing and drafting precision drawings.
- **Retrofit** - upgrading existing systems or buildings to improve energy efficiency and performance.
- **SMART Warehousing** - advanced logistics and inventory management technologies.
- **Electric Vehicle and Battery Manufacture** - technologies for producing electric cars and batteries.
- **Offshore Renewables** - technologies for harnessing energy from offshore wind, waves, and tides.

Annex:

Location	LSIP	ERB	Locations covered	LSIP report link
North-east	North East	North East Automotive Alliance Ltd. (NEAA)	Durham, Gateshead, South Tyneside, Sunderland	North East 2023
North-east	North of Tyne	North East England Chamber of Commerce	Newcastle upon Tyne, Northumberland, North Tyneside	North of Tyne 2023
North-east	Tees Valley	North East England Chamber of Commerce	Darlington, Hartlepool, Middlesbrough, Redcar and Cleveland, Stockton on Tees	Tees Valley 2023
North-west	Cheshire and Warrington	South Cheshire Chamber of Commerce and Industry	Cheshire East, Cheshire West and Chester, Warrington	Cheshire and Warrington 2023
North-west	Cumbria	Cumbria Chamber of Commerce	Cumbria	Cumbria 2023
North-west	Greater Manchester	Greater Manchester Chamber of Commerce	Greater Manchester Combined Authority	Greater Manchester 2023
North-west	Lancashire	North and Western Lancashire Chamber of Commerce	Blackburn and Darwen, Blackpool, Lancashire	Lancashire 2023
North-west	Liverpool City Region	Liverpool Chamber of Commerce	Liverpool City Region	Liverpool City Region 2023
Yorkshire and the Humber	Hull and East Yorkshire	Hull and Humber Chamber of Commerce	East Riding of Yorkshire, Kingston upon Hull	Hull and East Yorkshire 2023
Yorkshire and the Humber	South Yorkshire	Doncaster Chamber of Commerce	South Yorkshire Combined Authority	South Yorkshire 2023
Yorkshire and the Humber	West Yorkshire	West and North Yorkshire Chamber of Commerce	West Yorkshire Combined Authority	West Yorkshire 2023
Yorkshire and the Humber	York and North Yorkshire	West and North Yorkshire Chamber of Commerce	North Yorkshire, York	York and North Yorkshire 2023

East Midlands	Derbyshire and Nottinghamshire	Federation of Small Businesses	Derby, Derbyshire, Nottingham, Nottinghamshire	Derbyshire and Nottinghamshire 2023
East Midlands	Greater Lincolnshire	Federation of Small Businesses	Lincolnshire, North Lincolnshire, North East Lincolnshire, Rutland	Greater Lincolnshire 2023
East Midlands	Leicester and Leicestershire	East Midlands Chamber of Commerce	Leicester and Leicestershire	Leicester and Leicestershire 2023
East Midlands	South-East Midlands	Northamptonshire Chamber of Commerce (incorporating Milton Keynes Chamber)	Bedford, Central Bedfordshire, Luton, Milton Keynes, North Northamptonshire, West Northamptonshire	South-east Midlands 2023
West Midlands	Stoke-on-Trent and Staffordshire	Staffordshire Chamber of Commerce and Industry	Staffordshire, Stoke-on-Trent	Stoke-on-Trent and Staffordshire 2023
West Midlands	The Marches	Shropshire Chamber of Commerce	Herefordshire, Shropshire and Telford and Wrekin	The Marches 2023
West Midlands	West Midlands and Warwickshire	Coventry and Warwickshire Chamber of Commerce	Warwickshire, West Midlands Combined Authority	West Midlands and Warwickshire 2023
West Midlands	Worcestershire	Herefordshire and Worcestershire Chamber of Commerce	Worcestershire	Worcestershire 2023
East	Cambridgeshire and Peterborough	Cambridgeshire Chambers of Commerce	Cambridgeshire and Peterborough Combined Authority	Cambridge and Peterborough 2023
East	Essex, Southend-on-Sea and Thurrock	Essex Chambers of Commerce	Essex, Southend-on-Sea, Thurrock	Essex, Southend-on-Sea and Thurrock 2023
East	Hertfordshire	Hertfordshire Chamber of Commerce	Hertfordshire	Hertfordshire 2023
East	Norfolk and Suffolk	Norfolk Chambers of Commerce	Norfolk, Suffolk	Norfolk and Suffolk 2023
Greater London	Greater London	BusinessLDN (previously London First)	Greater London	Greater London 2023

South-east	Brighton and Hove, East Sussex, West Sussex	Sussex Chamber of Commerce	Brighton and Hove, East Sussex, West Sussex	Brighton and Hove, East and West Sussex 2023
South-east	Buckinghamshire	Buckinghamshire Business First	Buckinghamshire	Buckinghamshire 2023
South-east	Enterprise M3 LEP (including all of Surrey)	Surrey Chambers of Commerce	Hampshire (excluding the districts of Eastleigh, Fareham, Gosport, Havant, New Forest), Surrey	Enterprise M3 2023
South-east	Kent and Medway	Kent Invicta Chamber of Commerce	Kent, Medway	Kent and Medway 2023
South-east	Oxfordshire	Thames Valley Chamber of Commerce Group	Oxfordshire	Oxfordshire 2023
South-east	Solent	Hampshire Chamber of Commerce	Isle of Wight, Portsmouth, and the following districts in Hampshire: Eastleigh, Fareham, Gosport, Havant, New Forest, Southampton	Solent 2023
South-east	Thames Valley Berkshire	Thames Valley Chamber of Commerce Group	Bracknell Forest, Reading, Slough, West Berkshire, Windsor and Maidenhead, Wokingham	Thams Valley Berkshire 2023
South-west	Cornwall and the Isles of Scilly	Federation of Small Businesses	Cornwall, Isles of Scilly	Cornwall and the Isles of Scilly 2023
South-west	Dorset	Dorset Chamber of Commerce and Industry	Bournemouth, Christchurch and Poole, Dorset	Dorset 2023
South-west	Gloucestershire	Business West Chambers of Commerce	Gloucestershire	Gloucestershire 20233
South-west	Heart of the South West	Devon and Somerset Local Skills Improvement Plan	Devon, Plymouth, Somerset, Torbay	Heart of the South West 2023
South-west	Swindon and Wiltshire	Business West Chambers of Commerce	Swindon, Wiltshire	Swindon and Wiltshire 2023

South-west	West of England and North Somerset	Business West Chambers of Commerce	West of England Combined Authority, North Somerset	West of England and North Somerset 2023

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