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| **Digital Insights** |
| **Overview:** |
| **Digital (Tech)**<https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/><https://www.linkedin.com/pulse/dawn-decade-top-ten-tech-policy-issues-2020s-brad-smith>**The 4th Industrial Revolution** is seeing **rapid technological change** which is altering the way we live, work and relate to one another. The scale, scope and complexity of the **transformation is unprecedented**. This accelerated technological progress characterized by **new innovations provides both opportunities and challenges**. The possibilities of billions of people connected by **mobile devices**, with unprecedented processing power, storage capacity, and **access to knowledge**, are unlimited e.g. 5G 20 times faster than 4G with 6G expected before the end of the decade.These **possibilities are multiplied by emerging technology breakthroughs** in fields such as AI, robotics, the Internet of Things, autonomous vehicles, 3-D printing, nanotechnology, biotechnology, materials science, energy storage, and quantum computing e.g. last decade data has increased 25-fold.Government is committed to seeing this enormous potential fulfilled - to **ensuring the UK is the best place to start and grow a digital business, trial a new technology, or undertake advanced research** - and that the UK digital sectors remain world-leading. This requires supportive regulation but also **first-class digital infrastructure** and an **advanced skills base**.And this approach must go together with **ensuring the benefits are felt across the economy, throughout society and in every part of the country.** Every individual and every business should have the skills and confidence to seize the opportunities of digital technology and have easy access to high-quality internet wherever they live, work, travel or learn.As the rate of technological change and innovation continues, **‘tech’ is becoming increasingly integrated within every sector and industry**. Requirement to ensure that more people have the skills and creativity that will enable them to contribute to, and benefit from, new economic opportunities and deliver more **inclusive growth**.It is increasingly clear that **digital skills are vital to economic growth and productivity alongside individual life chances.**<https://www.fenews.co.uk/featured-article/40105-2020-vision-learning-for-the-changing-world-of-work>As an indicator of just how fast our world is changing consider this, **Ten years ago in 2010:*** GPS on phones was brand new
* Google Chrome browser was new (now has a majority market share)
* Snapchat was new
* Airnbnb was new
* Spotify was new
* Instagram was new
* Uber was new
* Bitcoin was new
* 4G was new

**Key Facts and Figures:*** 11.3 million UK adults (21%) lack one or more of the 5 Basic Digital Skills, and 4.3 million (8%) have none at all
* 60,000 charities and 655,000 SMEs have low digital skills. Compared to non-users, annual turnover for SMEs that use:
	+ A website, Instagram account and Facebook page is +£77,000
	+ Cloud-based IT systems, online accounting software and digital training tools is +£103,000
	+ Social media, e-commerce, SEO and data analytics expertise is +£104,000
* Digital skills for work are now a near-universal requirement, with more than 80% of job adverts demanding them - in all sectors, not just in tech
* Overall, roles requiring digital skills pay 29% (£8,300 per annum) more than roles that do not (£37,000 vs £28,700)
* Digital skills are a key driver of productivity, social inclusion/mobility, employment and readiness for the future of work
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| **Sector Skills Council/Sector Skills Body contact:** |
| **Department for Digital, Culture, Media & Sport**<https://www.gov.uk/government/organisations/department-for-digital-culture-media-sport>**The Digital Skills Partnership Team**dsp@culture.gov.uk |
| **Issues and Drivers:** |
| **New Technologies Impact on Jobs and Skills**<https://www.linkedin.com/pulse/dawn-decade-top-ten-tech-policy-issues-2020s-brad-smith>* Almost every industry is seeing **transformation in systems of production, management and governance** e.g. advanced manufacturing, offsite construction and automated logistics
* This is leading to **significant changes in job roles and skills demand** e.g. traditional manual manufacturing roles on the shop floor being replaced by computer/machine programmers through automation
* Given the pace of change **businesses are reporting skills supply issues which is hindering growth** e.g. high numbers of hard-to-fill digital job vacancies
* To make the most of rapid technological advancement and **drive growth and productivity** in the economy, education and skills provision needs to help ensure that people are equipped with the **right skills to avoid business growth disruption and increasing inequalities**

**What are the emerging jobs which will help drive growth and productivity?**<https://business.linkedin.com/talent-solutions/emerging-jobs-report/emerging-jobs-report-uk>The **UK top 3 emerging jobs**:* AI Specialist (Automation)
* Data Protection Officer (Big Data/GDPR)
* Robotics Engineer (Automation)
* Skills that help improve user experience are also in high demand e.g. qualitative research, usability testing, or content design
* Currently a gender imbalance with 65% of all these emerging roles held by men

**Workforce Now and in the Future - Who are currently and who in the future are going to fill these digital roles?**<https://www.institutelm.com/resourceLibrary/workforce-2020-managing-millennials.html><https://www.goldmansachs.com/insights/archive/millennials/><https://www.inc.com/peter-economy/the-millennial-workplace-of-future-is-almost-here-these-3-things-are-about-to-change-big-time.html> (By 2020, Millennials (those born between about 1980 and 2000) are forecast to comprise half of the American workforce, and by 2025, 75 percent of the global workforce.)* The **lifespan of businesses is shortening whilst the working life of all current and future working generations is lengthening,** for training and skills providers this has profound implications
* **These two forces are creating a major shift in the world of employment:**
	+ Millennials now make up half the UK workforce and may well spend sixty years working and on average have 12 different jobs
	+ A century ago, the average lifespan of a Fortune 500 company was nearly 70 years, now it’s less than 20
* **Changing way workers are thinking about their careers** i.e. multiple career changes / growth in entrepreneurship/self-employment
* Current rapid technological change is likely to accelerate meaning future workers will need to **reskill and upskill** to keep up
* The **collective challenge to create a learning society** where skills, subjects and diverse stakeholders converge to create **world ready people** engaged in the world around them and equipped to make something of it
* For current and future learners from ‘Gen Z’ the changing world of work requires:
	+ Open thinking
	+ Creativity
	+ Collaboration
	+ Digital skills
	+ Entrepreneurialism
	+ Resiliency, and
	+ The capacity to continually learn anew

**New Ways of Working**<https://www.fenews.co.uk/featured-article/40105-2020-vision-learning-for-the-changing-world-of-work><https://www.fenews.co.uk/press-releases/40263-how-digital-nomads-are-shaping-the-world-of-work-in-2020?utm_source=FE+News&utm_campaign=803cc0edd6-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_a588419e08-803cc0edd6-17376593> * Our world of high growth business is now reliant on internet **connectivity and agile business models** as a means of survival, hence the **rise of the gig economy and the cloud worker** and mega businesses that just ten years ago didn’t exist
* Working a 9-5 may still be a norm for many but **Digital Nomads** are now shaping the world of work and are predicted to reach **1 billion by the year 2035** i.e. rise of 5G
* **Remote working** leading to increased productivity and less sick leave but require the **right work ethic** - a recent study shows remote workers are 13% more productive than office workers and most likely to take fewer sick days with 23% willing to put in extra hours to finish their tasks
* Office space is changing with the **rise of coworking spaces** close to a meeting space when needed, with access to excellent connectivity and business amenities
* Creation of **agile virtual teams with flexible contracts** to manage specific projects based on specific competence
* Multitasking and life-long learning to support career changes
* As well as developing specific digital skill sets, **it is vital that educators are preparing people in these new ways of working** e.g. work remotely from any location, on any device and at any time

**Employer Expectations and Collaboration**<https://www.fenews.co.uk/featured-article/40105-2020-vision-learning-for-the-changing-world-of-work>* Businesses expect learners to be **work ready** and **prepared for the rapidly emerging high growth opportunities** we see right now – however while 45% of businesses rank work readiness as the most important factor they look for when recruiting, 44% of employers feel that young people leaving school, college or university are not ‘work ready’, also almost 1 in 4 young people feel inadequately prepared by their education for the world of work
* Education and skills provider **employability strategies and careers advice services need to be closely aligned to LMI** with a focus on current and future demand for skills including:
	+ Educators and business leaders **building open and sustainable relationships** that aligns learning to the changing world of work
	+ **Effective business engagement** - strategic and tactical market intelligence being used to quickly inform curriculum innovation and design
* Providing people with **skills sets to transform their life chances**
* Leading to a **stronger labour pool** which provides businesses with the skills to gain a competitive advantage, innovate and grow

**Government’s Digital Strategy**<https://www.gov.uk/government/publications/uk-digital-strategy>In March 2017 the Government published its Digital Strategy which follows the same framework as the Industrial Strategy in aiming to **build a world-leading digital economy** **which works for everyone** by building on the UK’s strategic strengths and tackling our underlying weaknesses.The strategy has several key ambitions:* **boost digital sectors and overcome barriers to growth and innovation** (i.e. public-private partnerships including businesses, local authorities and universities), creating more of the high-skilled, high-paid jobs of the future;
* deliver the first-class **digital infrastructure and advanced skills base** that businesses across the country need to be able to take advantage of digital tools;
* close the digital divide - to **ensure that everyone is able to access and use the digital services** that could help them manage their lives, progress at work, improve their health and wellbeing, and connect to friends and family.

**Digital Skills Partnership (DSP)**<https://www.gov.uk/guidance/digital-skills-partnership>The DSP brings together public, private and charity sector organisations to help increase the digital capability of individuals and organisations in England. Its work extends from a commitment within the UK Digital Strategy.The aim of the DSP is ambitious: to **improve digital capability across the whole skills spectrum** - from the essential skills that help reduce digital exclusion, to the skills workers need in an increasingly digital economy, and through to the advanced skills required for specialist roles.To meet these challenges, the DSP set up cross-sector Groups to tackle 3 priorities:* Support the development of **Local Digital Skills Partnerships** in English regions to bring together cross-sector partners to design, develop, and coordinate the delivery of innovative digital skills programmes, tackle digital exclusion, share best practice, and raise awareness of digital skills regionally;
* **Increase digital enterprise** by helping small businesses and charities upskill their employees and increase their digital capabilities so they can take advantage of the productivity gains that technology provides;
* Support **computing in schools** by convening industry and other partners to ensure that teachers have the knowledge and skills to teach the new world-leading computing curriculum effectively.

**Local Digital Skills Partnerships**The government is working with Local Enterprise Partnerships (LEPs) and Combined Authorities (CAs) to help establish Local Digital Skills Partnerships (Local DSPs) across the country to tackle local digital skills challenges and build thriving and inclusive local economies.**The 6 Local DSP Trailblazers**In 2018, 3 Local DSPs were set up in Lancashire, Heart of the South West and the West Midlands. DCMS invited all other Local Enterprise Partnerships and Mayoral Combined Authorities to submit Expressions of Interest to form a Local DSP pilot. A further 3 regions were selected and Local DSPs were launched in Cornwall and Isles of Scilly, Cheshire and Warrington and the South East over the Summer of 2019.**Local DSP Regional Coordinators**These 6 Local Digital Skills Partnership trailblazers have been allocated funding to employ a Regional Coordinator to facilitate the delivery of digital skills training opportunities in their respective Local DSPs. By working collaboratively with both regional and national stakeholders, they will be developing new innovative models to improve digital skills across their regions, boost their local economies and share this best practice with other LEPs and CAs.**The Local DSP Guide**The Government is developing a Digital Skills Partnership Guide to provide step by step advice on how to start the process of developing the partnership in a given area. The Guide will feature 5 key steps:1. Convening the partnership
2. Developing the Local DSP strategy and action plan
3. Coordinating the delivery of local digital skills provision
4. Evaluating success
5. Sharing best practice

**Addressing Workforce Inclusion Issues - Digital Skills Innovation Fund**Local Enterprise Partnerships (LEPs) and Combined Authorities (CAs) were invited to bid for grants as part of a new £1 million Digital Skills Innovation Fund for initiatives which specifically aim to help people take up digital roles.The funding will be used to **help women, disabled people, people from minority backgrounds or those living in lower socioeconomic areas to succeed in digital roles** such as data analysts, programmers, cyber security specialists, software developers and marketeers.Research reveals 17 per cent of women make up the tech workforce and are underrepresented in the uptake of digital qualifications. Unemployed adults are five per cent more likely to lack the basic digital skills than the national average.We know it’s becoming increasingly important that everybody in our society has the skills and confidence to be online; yet disabled people are four times more likely to lack essential digital skills then the general population and 28 per cent of those over 60 are offline.A new £400,000 **Digital Inclusion Fund** has also been launched to help older and disabled people acquire digital skills. Innovative projects are expected to include the teaching of basic skills such as booking GP appointments online, using apps to communicate with friends and family, and making the most of search engines. This will help enable people to live better lives with the benefits that being online can offer.<https://www.gov.uk/government/news/new-funds-to-boost-diversity-of-people-working-in-digital-and-tech-jobs>These initiatives will complement Government’s existing work to boost digital skills provision across the country. This includes £170,000 Government funding to support the **Tech Talent Charter** which is a commitment to ensure greater diversity in the tech workforce of the UK and implement recruitment and retention policies that will support women in digital and technology roles.The Digital Skills Partnership has seen Government, businesses, charities and voluntary organisations joining forces to deliver over **2.5 million free training opportunities** in areas such as basic online skills, cybersecurity and coding.**Digital Skills**It is clear that in order for people to make the most of digital technology there are varying types and levels of skills required for digital inclusion, digital educational progression and digital careers.* **Digital Inclusion Skills:**

The **Essential Digital Skills Framework** defines the skills needed to safely benefit from, participate in and contribute to the digital world of today and the future. The framework is intended to be used by everyone in the UK engaged in supporting adults to enhance their essential digital skills enabling progression and transferability of skills.There are **five categories of Essential Digital Skills for life and work**:•  Communicating •  Handling information and content •  Transacting •  Problem Solving •  Being safe and legal online <https://www.gov.uk/government/publications/essential-digital-skills-framework>The framework has informed development of **new national standards for essential digital skills** published in April 2019<https://www.gov.uk/government/publications/national-standards-for-essential-digital-skills>The **Basic Digital Skills report** helps to understand the digital skills levels of adults across the UK and inform the delivery of targeted programmes to improve digital skills - reveals older and disabled people are the slowest to adopt basic digital skills and also have the lowest internet usage.<https://www.lloydsbank.com/assets/media/pdfs/banking_with_us/whats-happening/LB-Consumer-Digital-Index-2018-Report.pdf>* **Providing Young People with the Digital Skills to Succeed:**

**Embedding Digital Skills in schools** - We also need a strong pipeline of specialist skills - from coding to cyber - to support the tech industry and drive productivity improvements across the economy. We will **deliver coding in the National Curriculum**, from Key Stage One onwards, and we will take forward the recommendations of the Shadbolt Review to **ensure computer science students have the real-world, up to date skills needed in the digital economy**. To help more young people from a wider range of backgrounds consider a career in tech, we will **support the National Citizen Service (NCS) in piloting new ways to include digital skills and careers in NCS programmes**.<https://www.gov.uk/government/publications/uk-digital-strategy/2-digital-skills-and-inclusion-giving-everyone-access-to-the-digital-skills-they-need>* **Advanced Digital Skills – career IAG, specific digital skill sets in demand**

Need to support everyone to develop the skills they need to participate in the digital economy and help all businesses harness the productivity benefits of digital innovation. To do this, the Government is to ensure adults in England who lack core digital skills will **not have to pay to access the basic digital skills training** they need, mirroring the approach taken for adult literacy and numeracy training. And, as jobs and whole industries are disrupted by digital innovation, we need to make sure those affected have the support they need to adapt.The **new Digital Skills Partnership**, working together with partners who share the ambitions to tackle the digital skills gap. The Partnership will play a crucial role in helping people access digitally-focused jobs at a local level, bringing together technology companies, local businesses, local government and other organisations to identify digital job vacancies and take action to help people move into these jobs.We live in a world where new technologies play an increasingly important role across the economy and society; **businesses need to continually update their workers’ skills** in order to remain competitive, and **individuals need to keep up to date with the changing digital landscape**<https://www.gov.uk/government/publications/current-and-future-demand-for-digital-skills-in-the-workplace> |
| **Implications of the Government’s Industrial Strategy Grand Challenges:** |
| It is clear that digital will be critical to the future of the UK economy and will play a vital role in realising the new Industrial Strategy. Digital holds a significant importance as a sector and is also an important factor enabling growth in other industries boosting skills, efficiency, productivity and competitive advantage. Although digital is not a ‘pillar’ by itself, it is a consistent theme running through the Industrial Strategy. Mentioned more than 50 times throughout the Green Paper, announcements of substantial new funding streams directly target the development of digital technologies, and digital is seen as a crucial opportunity to tackle some of the UK’s most pressing challenges.**1. A sector deal for the digital industry**The Industrial Strategy suggests the need for a digital sector deal involving key stakeholders to outline plans to address challenges such as improving productivity, accelerating growth, creating clusters, increasing exports, boosting skills, and commercialising research. The **AI sector deal** can be accessed through the following link <https://www.gov.uk/government/publications/artificial-intelligence-sector-deal>AI could potentially deliver a 22% boost to the UK economy by 2030<https://www.mckinsey.com/featured-insights/artificial-intelligence/artificial-intelligence-in-the-united-kingdom-prospects-and-challenges>**2. Digital as an enabler of growth in other industries and across the UK: new funding streams*** **Industrial Strategy Challenge Fund (ISCF)** - £4.7 billion of additional funding for research and innovation to tackle major challenges including healthcare, artificial intelligence, clean energy and driverless cars, among others. Digital technologies will be at the heart of future developments for all these challenges

<https://www.gov.uk/government/collections/industrial-strategy-challenge-fund-joint-research-and-innovation#transforming-construction>* **Digital Infrastructure Investment Fund** - the government’s £400 million Digital Infrastructure Investment Fund (DIIF) aims to unlock over £1 billion for full fibre broadband, and lead to better broadband connections across the country

<https://www.gov.uk/government/news/billion-pound-connectivity-boost-to-make-buffering-a-thing-of-the-past>**3. Investing in digital skills is essential to training people for future jobs**The Industrial Strategy dedicates significant attention to digital skills. Research by Nesta’s European digital policy centre, Readie shows that **only three in ten UK employees say they are offered basic digital training by their employers**<https://readie.eu/publications/digital-pulse-how-ready-is-the-uk-for-the-digital-life/>With a 2017 report by Ipsos Mori/Lloyds Bank showing that more than **11 million adults in England lack basic digital skills**, the Government has committed to funding adult digital skills training. For those still in education, it will work with the **Institute for Apprenticeships and Technical Education** to determine what digital content will be included in the new technical education routes<https://www.ipsos.com/en/basic-digital-skills-uk-report-2017> |
| **Local Labour and Skills Demand and Supply Issues:**  |
| <https://www.instituteforapprenticeships.org/about/occupational-maps/>It is recognised that there are **3 main career pathways in digital**:* **Digital Support and Services** – made up of:
	+ Technical occupations (Level 2/3) e.g. IT Support and Services Technician;
	+ Higher Technical occupations (Level 4/5) e.g. Network Engineer;
	+ Professional occupations e.g. Cyber Security Professional (Progression from Level 4/5)
* **Digital Production, Design and Development –**
	+ Technical occupations e.g. Software Development Technician;
	+ Higher technical occupations e.g. Games designer;
	+ Professional occupations e.g. Creative Digital Design Professional
* **Digital Business Services –**
	+ Technical occupations e.g. Data Technician;
	+ Higher technical occupations e.g. Business Analyst;
	+ Professional occupations e.g. Data Scientist / AI Data Specialist

**Occupations in Demand**Digital roles are wide-ranging in nature and cut across all sectors and industries.* **High demand locally** for:
	+ **Programmers and software development professionals** – over 3,600 vacancies last year
	+ **Web design and development professionals** – over 1,700 vacancies
	+ **IT business analysts, architects and systems designers** – 1,000 vacancies
	+ Also high demand for **change management** and **sales and customer service roles**
* As well as **gains in efficiency and productivity** (e.g. AI could boost the UK economy by over fifth by 2030)these new jobs have the potential to **raise income levels and improve quality of life**

**Key Industries/Employers in Stoke-on-Trent and Staffordshire**The main industries locally recruiting this emerging digital workforce are:* Human health activities (NHS highest recruiter last year with 466 vacancies)
* Computer programming, consultancy and related activities
* Education especially HE
* Retail
* Public sector

**Demand-side Issues** *(DfE Employer Skills Survey)** A fifth (19%) of Information & Communications businesses in SSLEP have vacancies which is similar to the average (20%) for all businesses in SSLEP
* Around 1 in 10 (8%) of businesses have hard-to-fill vacancies (slightly lower than the 9% for all businesses)
* 7% have skills shortage vacancies the same as for all businesses (**nearly a third (30%) of vacancies are SSVs higher than the average of 22% for all businesses**)
* 9% of businesses have staff with skills gaps and are not fully proficient lower than the average of 17% for all industries
* Over half (59%) of businesses have trained staff over the last 12 months compared to 65% for all businesses
* There were more businesses providing on-the-job training (50%) than off-the-job training (39%)
* Over a quarter (28%) of businesses have underutilised staff which is lower than the average of 32% for all industries
* **Nearly three quarters (71%) of businesses expect the need for upskilling of staff over the next 12 months** compared to two thirds (66%) of all businesses

**Main information & communication qualifications and providers (skills supply) ESFA Funded Learning:*** SSLEP **ESFA funded learners have declined over the last 3 years by 18% or 157 learners** with the main qualifications in 90-credit Diploma in IT (QCF), Extended Diploma in IT (QCF), and BTEC National Extended Certificate in Information Technology
* Majority of provision is based in Staffordshire (81%) with the remaining 19% in Stoke-on-Trent
* The main providers are Newcastle and Stafford Colleges Group (36%), Burton and South Derbyshire College (16%), Stoke-on-Trent College (14%), and South Staffordshire College (9%)

**Apprenticeships:*** SSLEP **apprenticeship starts in information and communication technology stood at 300 in 2017/18 showing an increase of 15% or 40 starts over the five-year period since 2013/14, this was lower than the 43% increase seen nationally**
* The main apprenticeship programmes in 2017/18 were in ‘IT and Telecoms Professionals’, ‘Digital Marketer’, and ‘IT User’
* The main providers are Aspire Achieve Advance Ltd, BT, Project Management (Staffordshire) Ltd, QA Ltd, and Staffordshire University
* The highest volume of provision is based in Derby and Stoke-on-Trent
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| **Local Responses:** |
| **Adult Community Learning** – [The 2019-23 Community Learning Strategy and Commissioning Plan](http://moderngov.staffordshire.gov.uk/documents/s122458/Appendix%20E%20-%20Community%20Learning%20Strategy%202019-2023.pdf) has a digital skills component and the digitally excluded are a priority cohort. There are a range of basic and accredited digital skills courses for adults provided in FE colleges and libraries free of charge across all districts as part of educational entitlement. These courses support participants to use digital technology more effectively, stay online and access online services. **Libraries –** There are 74 ICT buddies in the 43 libraries across the county who help people who have little or no digital skills to get online, create a CV and pay household and utility bills etc. There are also job clubs delivered by community organisations (SuS, Housing Associations etc) that meet in libraries which support with digital skills for employment. Adult and Community Learning sessions are also delivered out of County managed libraries. **Public Health** – How we can get older people more digitally included is an area being considered as part of the ongoing Supportive Communities work. Making our digital resources more accessible and as easy to use as possible for all people is also a priority area of work for the developing IAG strategy. **Children’s Centres –** Children’s Centres support anyone who comes in requiring help or who is identified as needing support by partners.  Children’s Centres signpost to digital courses for people to access support and host sessions on digital related areas such as helping families to apply for Universal Credit online. Family Support Providers will also support any families with digital skills as required in the family home and signpost to additional support.  **Digital Team** – There is no specific work currently ongoing on digital inclusion, however the Digital Team has developed the <http://digitalstaffordshire.info/digital-toolkit/> website that offers IAG and toolkits to support residents and community organisation with digital skills. **Network Staffordshire –** Network Staffordshire developed the Smart Staffordshire strategy with Alun Rogers, Vice Chair of SSLEP, as the lead. A core theme of the strategy is ‘Smart People’ (along with Smart Living / Smart Working) which focuses on digital skills being a core part of the school curriculum and the FE and HE offer, as well as employers and businesses investing in digital skills. This is linked to the wider Vision for Staffordshire and the Local Industrial Strategy (LIS), with Alun Rogers focused on positioning this as the ‘digital’ pillar of the developing LIS work.**Staffordshire Digital Information Partnerships (SDIPs) –** The Staffordshire Deal has a strong digital focus, specifically through the Staffordshire Digital Information Partnerships (SDIPs). The programme is a collaborative project between Staffordshire University and Staffordshire County Council and supported by the LEP to drive transformation through digital innovation in the region. One strand of the work focuses on Social Challenge Innovation Partnerships (SCIPs) using digital technologies to engage young people and families. **The SSLEP Advanced Manufacturing & Engineering Hub - The Science & Technology Centre –** based at Stafford College with a focus of developing STEM-related curriculum primarily at levels 3, 4 and 5. The primary curriculum offered within the Centre is focussed on level 3 with the delivery of A Level Sciences, Engineering and Computing. The Centre also hosts level 4 full time, part time and apprenticeship programmes along with the College’s level 2 and level 3 engineering apprenticeship activity. The College offers a series of primary and secondary taster activities focussed at key stage 3 and 4 where pupils from local schools visit the Centre for a day and experience on a carousel basis the Sciences, Lego and Computing. The plan is to inspire the students of the future to consider STEM related activity when making their career choices. The college’s specialisms are in the following areas:* Computer Aided Design/Manufacturing (CAD/M)
* 3D Design, scanning and printing
* Robotics, mechatronics and programmable logic controls (PLC’s)
* Building Information Modelling (BIM)
* Design for Manufacturing (DFM)
* Building Energy Management Systems (BMS/BEMS)
* Construction design, architecture, surveying and civil engineering
* Technical construction management
* Mechanical, electrical and electronic (M&E) design, implementation & servicing
* Applied Maths

**ESFA ESF Programmes -** The ESFA programmes provide a wide range of support from engagement and outreach activities to higher level skills development, these are delivered across the region through four prime providers; Skills Training UK offer support to individuals who are NEET, Peopleplus offer support to unemployed individuals, The Community Foundation for Staffordshire provide community grants to organisations moving people closer to the labour market and Serco offer skills support to both employed individuals and those who are under threat of redundancy.Up to August 2019 the **round 2 ESF programmes have supported learners in 336 ICT qualifications**, with a ICT user skills, internet safety and open systems and enterprise.**SSLEP Digital Skills Survey**To help further understand the need for digital skills in Stoke-on-Trent and Staffordshire the Stoke-on-Trent and Staffordshire LEP has recently commissioned Serco to conduct a digital skills survey with local businesses. The findings will be published on the SSLEP website in April and will help identify digital skills barriers and how best training opportunities can be promoted to ensure growth is not inhibited. |
| **Recommendations:*****Options:**** *Do nothing*
* *Develop a provision offer to fill “provision gaps”*
* *Increase capacity of existing provision to meet demand*
* *Fund capital equipment to enable education providers to deliver provision to fill “provision gaps”*
* *Improve supply, increase attainment Ks4, Ks5 and post 16*
* *Enhance CEIAG to share details on priority sectors to inform career choice*
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| **Career IAG** – create **stronger local partnerships i.e. Local Digital Skills Partnership** including businesses, local authorities, providers and universities to i**dentify current and future digital jobs and changing demands for digital skills** which informs career IAG for young people and those already in the workplace i.e. upskilling and reskilling**Basic Digital Skills and Inclusion** – reducing inequalities by **improving local digital infrastructure e.g. broadband and the skills** that all residents require to be able to make the most of new technological developments in their lives and work**Addressing Workforce Underrepresentation** – supporting underrepresented groups including women, disabled people, people from minority backgrounds or those living in lower socioeconomic areas to develop their digital skills and take-up digital roles**Work Ready Young People and Raising Aspirations of the Future Workforce –** given the importance of digital to all sectors of the economy it is vital that our young people leave the education system with the knowledge, digital skills and wider personal skills to make them work/world ready and able to take advantage of new digital job opportunities and support economic growth – key to this are LMI informed provider employability strategies, and agile curriculum and training programmes**Provision which meets key business asks of young people** including:* **Added value** through a wider portfolio of skills rather than a tightly defined curriculum set
* **Digital literacy** is a critical life skill for higher value employment today, and needs to be embedded in everything education does
* **Entrepreneurial capability** is now an essential component in work readiness
* **Collaboration, innovation and commercialisation** will be key for future workers - whilst machines may have memory, they have no imagination!
* **Character and wider personal skills** are increasingly valued by employers to ensure new ways of working are effective and productive

**Life-long Digital Learning** – as the technology continues to develop at an increasing pace it is vital that life-long learning is further encouraged by providing local opportunities for people to up-skill or re-skill to keep up with technological change and innovation otherwise growth and productivity may be restrained - the **Government’s National Retraining Scheme** is a valuable source in learning the new skills necessary to upskill**Technical and Advanced Digital Skills** - through public-private collaboration and partnership working develop the advanced skills that local businesses need to be able to take advantage of digital technology and boost economic growth and productivity – leading to the creation of more of the high-skilled, high-paid jobs in the future and greater prosperity and quality of lifeFor example, a priority in Stoke-on-Trent and Staffordshire is the development of digital skills to allow for the effective **adoption of digital technology across advanced manufacturing**, including artificial intelligence, robotics, augmented reality solutions, automation technology, blockchain and data analytics. |
| **What are the Outputs/Outcomes/Impacts?***(Sector-wide: Skills supply that meets demand / Sector growth in terms of businesses, jobs and GVA / Improved sectoral productivity)* |
| *Example: Develop digital skills (particularly higher technical and professional skills) to support current and future demand for high-value digital and tech roles in the SSLEP area…addressing existing digital skills gaps i.e. from basic to higher level skills as well as wider work ready skills for efficient and effective new modern ways of working…future proofing the digital workforce by supporting lifelong learning through opportunities to upskill and reskill in new emerging roles beyond those being automated i.e. increasing demand for innovation roles such as product design and development engineers and digital roles such as programmers, software development professionals and advanced machine operatives…leading to improved local competitiveness, greater exports and increased economic growth and productivity* |