



LSIP

Local Skills Improvement Plan
Insights | Skills | Growth



Closing the digital skills gap:

Shape the future of local digital skills provision
in Norfolk & Suffolk

LSIP Workforce Digital Skills
DRAFT 1.0 Analysis Report
March 2023

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Foreword

This report provides a 'state of the region' report as of March 2023 into the current landscape for digital skills among employers in Norfolk and Suffolk.

Data collected via the online survey has been stress-tested with local businesses and a number of themes have emerged strongly which we have described as '3 Gamechangers'.

Specifically: 1. digital skills are now ubiquitous in most roles in Norfolk and Suffolk; 2. Covid 19 has had a profoundly disruptive effect on working patterns, digital adoption and on modes of learning; and 3. recent step-changes in the progress of Artificial Intelligence as a mainstream technology will bring about greater emphasis on businesses' ability to understand, interrogate and master data.

While the thrust and direction of previous analyses of digital skills remain relevant, this arena is complex and granular, with a greater emphasis on skills (including the interplay between hard 'digital' skills and soft skills) over qualifications by local employers and is evolving at pace.

Tim Robinson

Chief Operating Officer

Tech East



EXECUTIVE SUMMARY



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EMPLOYER
VOICE

Key Insights: Place Implications of digital skills development in Norfolk and Suffolk



- Norfolk and Suffolk have strong, underpinning digital sectors (including global corporates such as BT and Aviva and a diverse range of entrepreneurial scaleup, 'digitally intensive' businesses) and thereby a wealth of digital expertise on which the wider region can draw.
- Recent capital investments in digital infrastructure have strengthened and diversified provision via Universities, FE Colleges, independents and social enterprises while new and planned investments (e.g. at West Suffolk College and Gateway 14) can further improve clustering by extending the geographic spread of high quality digital skills hubs.
- Local partnerships (e.g. the Digital Skills Taskforce) are valuable and have developed despite lack of central government support and there is appetite among local employers to get more involved in the skills system.
- We should recognise the challenge from employers around a perceived 'patchwork' of skills provision as we move towards County Deals.
- Three 'gamechangers' have levelled the global playing field for digital skills and imply that the region can no longer be perceived as a UK backwater.

Executive Summary ⁵



Three Game Changers for Digital Skills

Gamechanger 1: Covid 19 (the recent past)

Executive ⁶ Summary



The disruptive, transformative impact of the pandemic was especially high profile throughout our skills conversations with employers. It has radically changed the workplace with a near complete shift to remote, home and hybrid working and the rapid adoption of Zoom and Microsoft Teams. It has also catalysed greater technological innovation in sectors such as transport, retail and hospitality with omni-channel distribution meaning that many businesses pivoted to new business models and required new digital skillsets from front-line staff

Key skills implications:

- Employers are able to recruit staff nationally and globally – particularly for specialist technical positions, reducing their reliance on the local Norfolk and Suffolk talent pool.
- A dramatic increase in demand for digital skills – both for those in and out of work
- Evolving leadership requirements with managers needing to recruit, engage and develop employees through digital tech rather than on a face-to-face basis
- Expectation of online, independent learning programmes without the need to travel to a traditional face-to-face course

Three Game Changers for Digital Skills:

Gamechanger 2: Digitisation of the Norfolk & Suffolk Economy (Here and Now)



Employers were generally surprised (although accepting when presented with the data) of the extent to which digital skills are now essential to most if not all jobs in Norfolk and Suffolk. For example analysis of online job vacancies demonstrates how digital skills are integral to jobs in nursing and driving with only 8 of the top 30 local jobs by volume reported being recognisable as either being in the Digital Sector or being a Digital Occupation.

Key skills implications:

- Providers must incorporate relevant digital skills competencies into all learning programmes – from basic ‘employability’ to occupational learning pathways
- The likely ‘next step’ requirement for those staff that become regular digital tech ‘users’ to become intensive ‘super-users’ to ensure that business’s investments in technology are maximised throughout their workforce.
- Opportunities with the right interventions to increase the digital literacy of the wider community (e.g. young people and families, the elderly or digitally excluded) now that almost all of the working population have some level of digital competency

Executive ⁷ Summary



Three Game Changers for Digital Skills:

Gamechanger 3: Artificial Intelligence (Emerging/the near future)



The opportunities and challenges raised by the looming potential for business and workplace application of AI such as #ChatGPT was primarily raised by digital tech sector employers, describing how in their view it may radically lower demand for certain occupations. Examples given included copywriting, food processing, manufacturing, office administration, social media production and management information with employers sharing early examples of where AI was already reducing headcount in areas such as accounts processing.

Key skills implications:

- The need for high level technical and leadership programmes to support employers to optimize the application of AI within their organisations
- The need for more analysis of any known or likely impacts on jobs and employment in Norfolk and Suffolk to inform effective careers education and in-career upskilling
- Recognition that the increasing prominence and prevalence of data-driven technologies will result in increased demand for both specialist data-leaders (data scientists, data analysts) and for many managers to develop data analysis skills to ensure that the businesses understand and respond to 'the story the data is telling us'

Executive Summary ⁸



Key Findings: Employers' skills needs

- The results online survey suggesting that **28% of employers did not have the digital skills required for growth** was endorsed.
- **Foundation digital skills** – the surveys, backed by employer feedback, confirmed that there remain significant, and not diminishing, challenges for employers with entry-level digital skills. These skills include the ability of staff to best utilise bespoke software systems adopted by many sectors, such as in logistics, health, and retailing.
- **Applied digital skills** – the data supported an increasing demand for database, and social media skills, particularly with microbusinesses and SMEs reflecting their need and intention to increase investment in these roles, although interestingly, the feedback from tech sector businesses was that Artificial Intelligence (AI) will in the medium term perhaps reduce demand for such jobs.
- **Advanced digital Skills** – employers confirmed that there is still a local ‘war on talent’ with high demand in areas such as coding and software development
- **Soft skills** – A greater emphasis on ‘soft skills’ for those in higher technical roles and a shared consensus that ‘data skills’ will become a core, transferable skill across businesses and not restricted to specialist data roles.
- **Leadership skills**– SME leaders responsible for leading digitisation through appropriate tech investment, roll-out and the development of staff capabilities.

Executive Summary ⁹



Key Findings: Skill sets available

- Employers made the point that **remote working patterns mean that especially for technical, desk-based roles, talent can be sourced from across the UK and beyond.**
- Employers concurred that **digital skills are increasingly required for almost all jobs.** The data demonstrates references to digital skills in job roles such as nursing and driver's jobs, which have not traditionally emphasised digital literacy.
- Employers raised the **differences between 'digital natives'** – younger people who have 'grown up' in a digital world of smartphones and tablets **and older people** in fully utilising the potential of the digital applications available – sometimes described as a difference between 'minimal' and 'super' users.
- Within the tech sector, employers raised concerns about the **lack of gender diversity regarding technical roles** such as software development. However, there are some 'green shoots' regarding uptake of technical Digital Apprenticeships and in areas such as Social Media management
- Although a national rather than a local issue, employers raised the **impact of the pandemic on local adults and young people** – especially in terms of self-confidence, resilience, and sometimes diagnosed mental health conditions

Executive ¹⁰ Summary



Key Findings: Local provision

- Employers validated the concerns raised in the survey about the **complexity and granularity of the skills landscape** and thereby, accessibility of provision.
- Although there were concerns expressed, on the whole, **employers demonstrated a real appetite to get more involved** in the local education and skills system with the view that digital skills development at all levels is particularly well-suited to work-based learning with widespread work experience and project opportunities for residents to engage and develop in a ‘real work’ setting and a learning environment.
- Partly due to the labour market challenges of traditional graduate talent routes, **employers are increasingly open to pathways such as Apprenticeships and T Levels.**
- **Adult digital literacy remains a concern for employers** – probably exacerbated by the digitisation of most occupations. This is both for the skills required to enter employment and an upskilling of the existing workforce perspective.
- **Employers were very much focused on the value of digital skills competence** (in their own organisational context) – and not on specific qualifications.
- For both basic literacy and higher professional upskilling requirements, **employers are increasingly utilising self-directed online learning approaches** rather than traditional short or long courses.

Executive Summary ¹¹



Opportunities to 'close the gap'

- Build on appetite from employers to become Digital Skills champions for Norfolk and Suffolk – championing digital developments and hosting digital skills development opportunities and pathways
- A specific focus upon supporting SMEs with their digital skills needs – particularly in reskilling existing staff – both technically and with the skills to lead technology investment programmes and the skills needs that inevitably fall out from investments
- The opportunity for existing and new providers to harness the wide range of online learning opportunities available at low or no cost to build the digital skills of students at home, in the classroom and in placement settings
- The opportunity for the tech sector to facilitate its own learning networks as part of the digital tech cluster approach in Norfolk and Suffolk
- The potential for an enhanced role for Tech East and other networks as brokers of work experience and other skills opportunities

Executive Summary ¹²



Our Approach - What is the LSIP?

- The Norfolk and Suffolk Local Skills Improvement Plan (LSIP) – is designed to put businesses and employers at the heart of the skills agenda.
- A business engagement project developed to understand business skills needed now and in the future.
- Facilitate business community engagement, greater skills understanding, and closer working with education and training providers.
- The LSIP focuses on specific sectors/themes:
 1. Agritech / Food Processing
 2. Climate Adaptation / Net Zero
 3. Soft Skills
 4. **Workforce Digital Skills – Led by Tech East**



Our Approach - Method

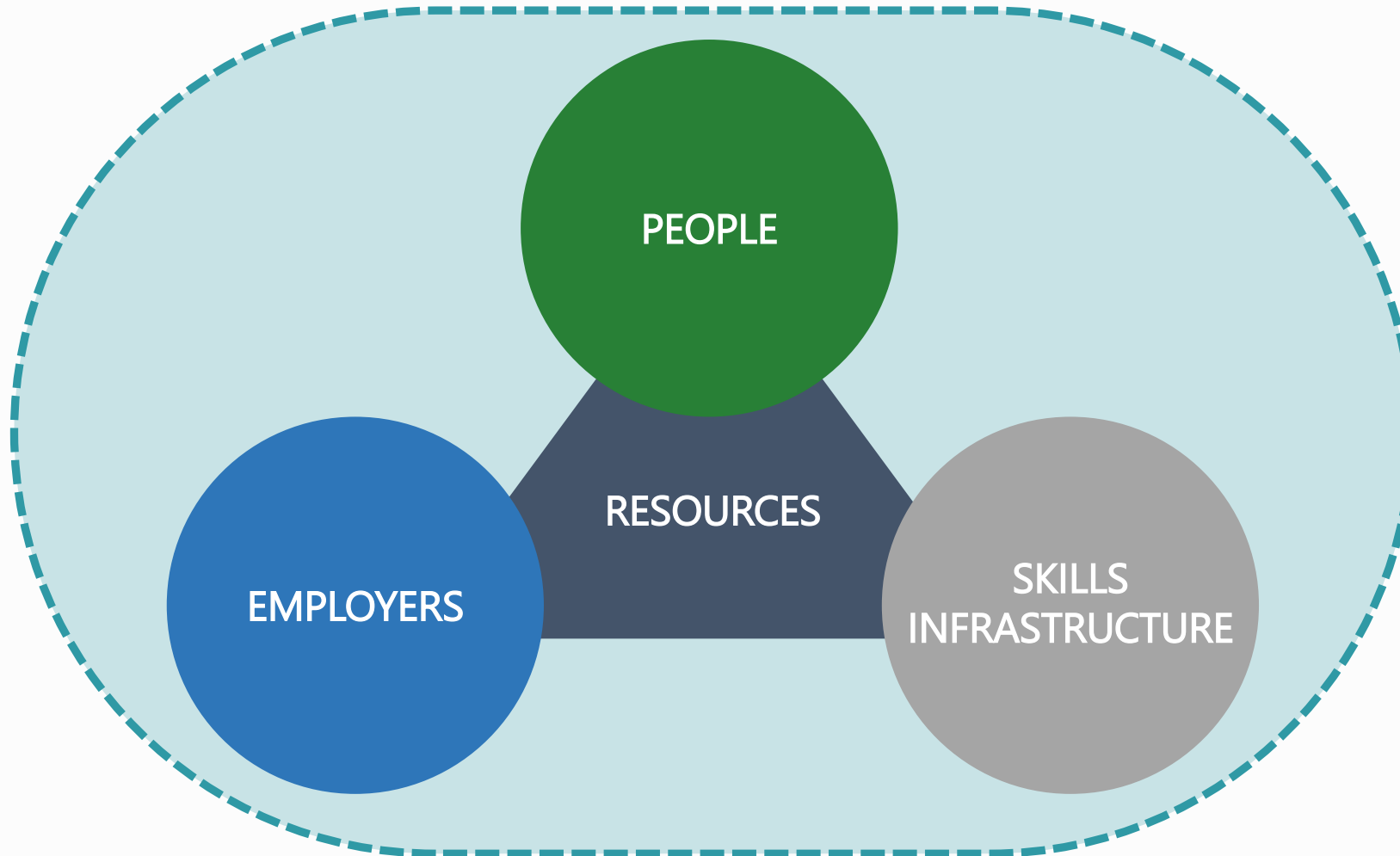
Tech East has worked in partnership with SkillsReach to build a process that amplifies the employer voice, both in respect of digital skills needs but also considering the connected elements of local resident skills / aspirations and the skills provision available locally. In particular, we have ensured data gathering is triangulated with virtual and face-to-face conversations, articulating the most contemporary employer viewpoint on the skills landscape in Norfolk and Suffolk.

REVIEW	ENGAGE	REPORT
<p>Desktop research focused on the:</p> <ol style="list-style-type: none">1. Context for Digital Skills2. Employer Digital Skills Needs (Demand)3. Digital Skillsets available (Supply)4. Digital Skills Provision (Infrastructure)	<p>Feedback from local employers and stakeholders via:</p> <ol style="list-style-type: none">1. Online surveys2. Virtual skills conversations3. Face-to-face employer workshops4. Tech East	<p>We have produced a report that is:</p> <ol style="list-style-type: none">1. Up-to-date2. Uses quantitative and qualitative evidence3. Provides analysis and commentaries4. Visually impactful and easily portable for stakeholders.
<p>OUTPUT A robust, accessible and up-to-date evidence base.</p>	<p>OUTPUT A shared qualitative view of current local conditions and future challenges.</p>	<p>OUTPUT An engaging and accessible report that supports forward momentum.</p>



Our Approach – Local Skills Ecosystem

PLACE & LOCAL LEADERSHIP in Norfolk and Suffolk



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This model seeks to describe the relationships and interactions within the Norfolk and Suffolk skills ecosystem from an employer perspective.

Resources sit at the centre of the model, traversing the three elements and reflecting that all three utilise funds for skills development. The critical driver of 'Place & Local Leadership' on the Norfolk and Suffolk skills ecosystem is also recognised.

Our Approach - Key Questions Asked of Employers

1. What do you mean by 'digital skills'?
2. What are your priority skills needs, shortages, and gaps?
3. How do the local skillsets available to you match up?
4. How well do national and local skills systems support you?
5. What would improve digital skills provision in Norfolk and Suffolk?



Section 1: The Context

- Sharing the evidence base
- What's your take?

EMPLOYERS

- **Employers challenged the data** in respect of both the **size** of the Digital Sector locally and the **scale** of digital occupations across the wider Norfolk and Suffolk Economy. The figures were felt to be understated.
- The consistent employer view was that the **sector and the scale of digital occupations are actually greater**, and there may be risks that, as a consequence, the **importance** of both generic and higher-tech digital skills to a vibrant and large-scale career opportunity **must not be underplayed**.
- Employers also valued the importance of **a distinction between the specific needs of the digital sector** (particularly concerning higher technical skills) **and the growing generic skills** needs required by almost all Norfolk and Suffolk employees as a result of the fast-paced digitisation of the whole economy – the Covid-19 pandemic has accelerated the latter.
- There may be an **opportunity to quantify the scale of the wider digital skills challenge** through understanding, perhaps via extrapolation, the numbers of working age without the digital skills to access most employment opportunities.

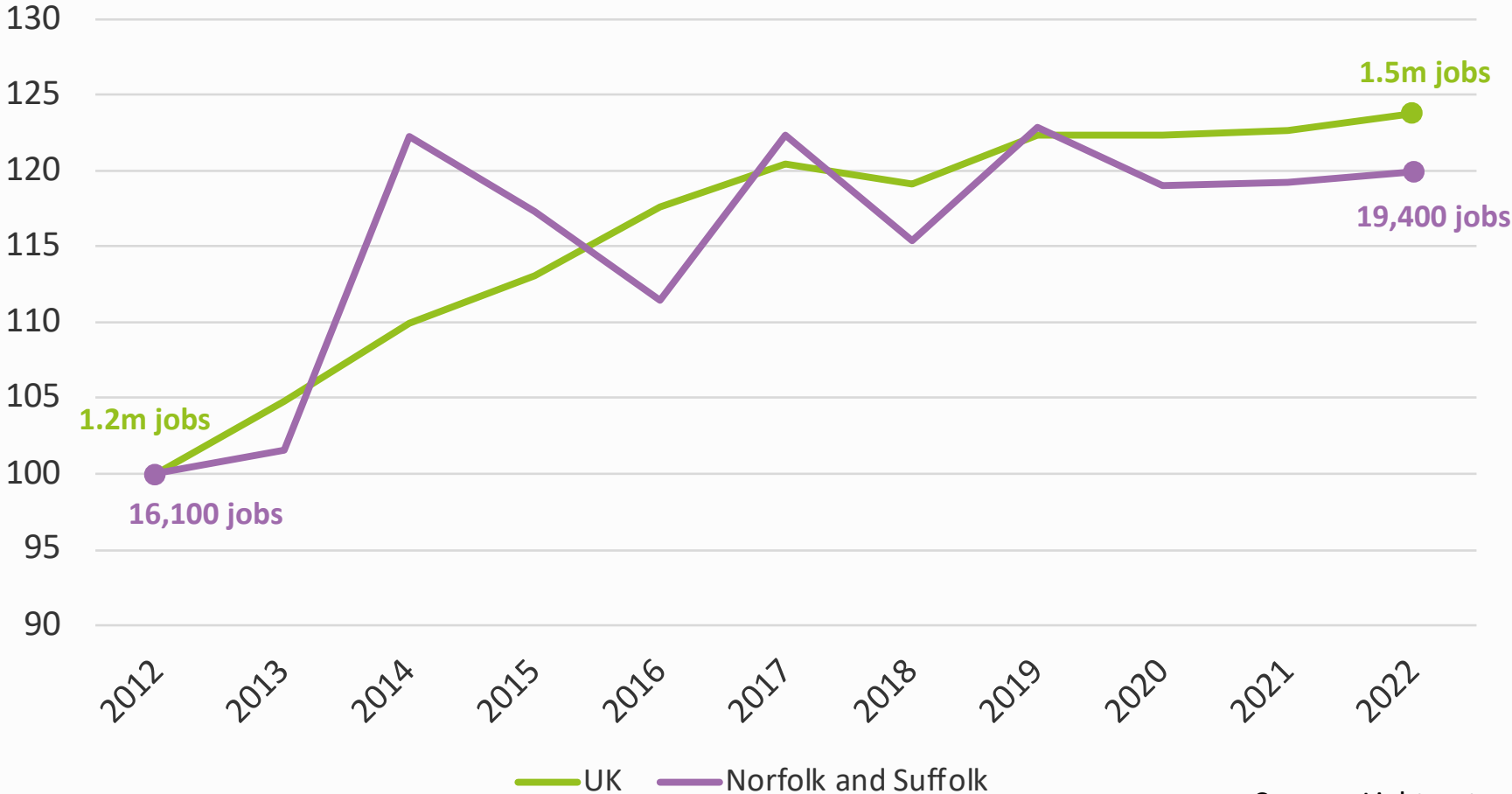


Context – Digital Sector in Norfolk & Suffolk



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Growth in Digital Sector Jobs Index (2012=100)



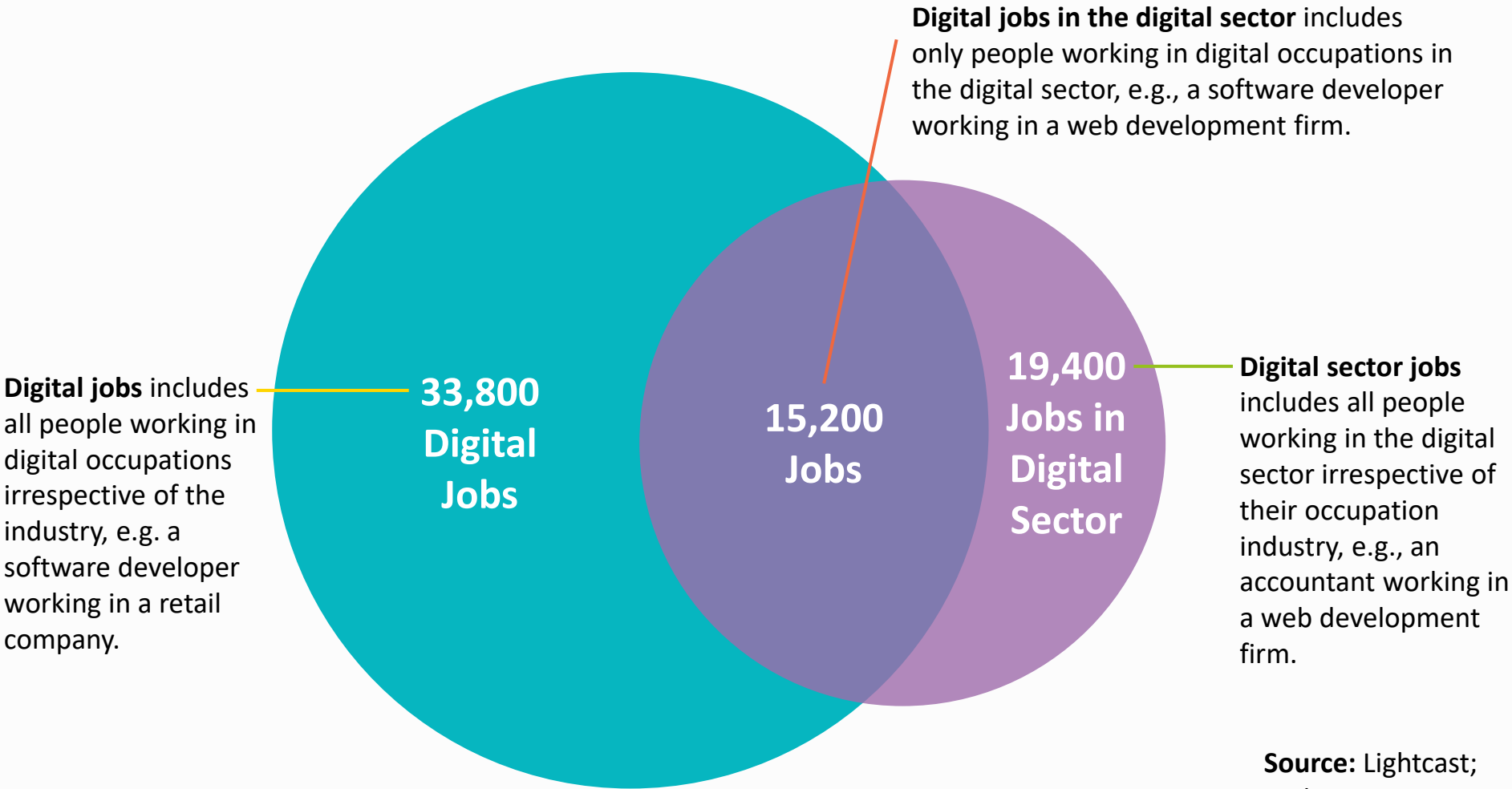
Source: Lightcast

Includes all people working in the digital sector, including non-digital jobs, e.g., an accountant working in a web development firm



Uses the Department for Culture, Media & Sport (2016) definition of the Digital sector

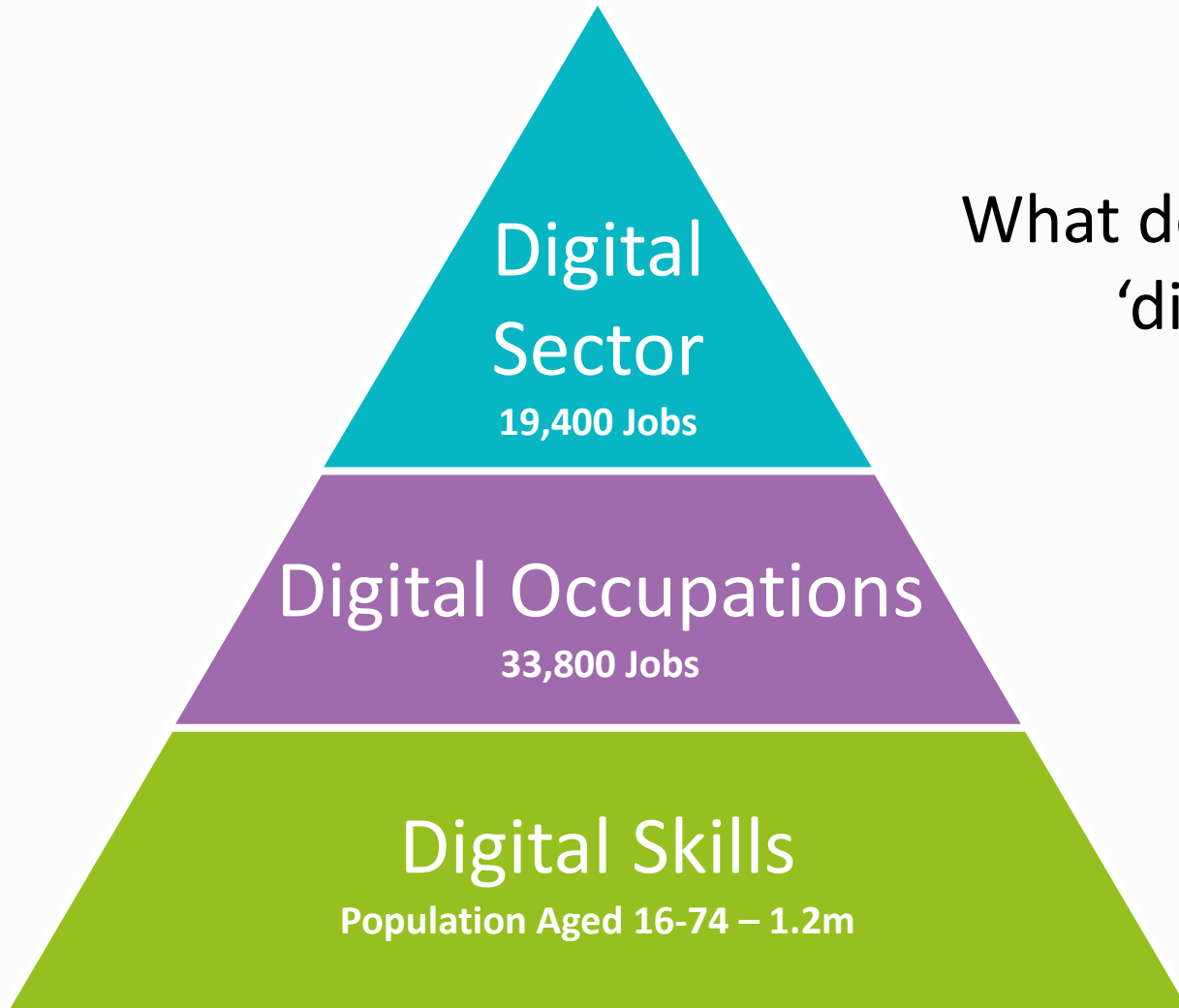
Context – Digital Sector in Norfolk & Suffolk



Source: Lightcast; Tech Nation



Job numbers are based on national proportions for the digital tech sector/occupations taken from the Tech Nation report 'A Bright Tech Future' (<https://technation.io/bright-tech-future/>)



What do we all mean by 'digital skills'?



Section 2: Employer Needs

- Sharing the evidence base
- What's your take?

EMPLOYERS

Employer Needs – Feedback

- **Employers broadly supported the thrust and relevance of the Digital Tech Skills Plan (2017).** However, there was a collective recognition that the workplace and business disruption due to the Covid pandemic had increased demand for generic digital skills due to the widespread adoption of home or hybrid working patterns and the acceleration of digital adoption in sectors such as transport, retail and hospitality.
- The online survey suggesting that **28% of employers did not have the digital skills required for growth** was endorsed.
- **Foundation digital skills** – the surveys, backed by employer feedback, confirmed that there remain significant, and not diminishing, challenges for employers with entry-level digital skills with the view that ‘Microsoft skills’ was probably a proxy for general skills (although Excel skills gaps were regularly mentioned) and increased use of Teams. General skills include the ability of staff to best utilise bespoke software systems adopted by many sectors, such as logistics, health, and retailing.
- **Applied digital skills** – the data supported an increasing demand for database and social media skills, particularly in contributing to the customer service and marketing operations of SMEs in particular, reflecting their need and intention to increase investment in these roles although interestingly, the feedback from tech sector businesses was that AI will in the medium term perhaps reduce demand for such jobs.



Employer Needs – Feedback

- **Advanced digital skills** – employers confirmed that there is still a local ‘war on talent’ (although perhaps slightly cooled–off post-pandemic) with high demand for technical specialists in areas such as coding and software development – including an evident very recent spike in demand – with proximity to Cambridge still a factor.
- **Soft Skills** – Compared to the findings of the Digital Tech Skills Plan, however, employers now emphasize ‘soft skills’ for those in-demand higher technical roles. No one definition of ‘soft skills’ was agreed upon. Still, there was a shared consensus that ‘data skills’ – i.e., the ability to ‘understand the story’ being told by the data will become increasingly important in the digital sector and across the wider economy. This is partly because new AI technologies will reduce the need for people to engage in pure data production. In the longer term, employers believed that ‘data analysis’ would be required as a core, transferrable skill across businesses and would not be restricted to specialist data roles.
- **Leadership** – Small businesses, in particular, outlined the challenges for leaders to lead digitisation to add value to their business growth and profitability. In particular, the skills to invest in, implement, and develop in-house staff capabilities with digital technologies was seen as an obvious gap without evident local skills solutions.



Original priorities identified in the Norfolk & Suffolk Digital Tech Skills Plan: are these still relevant?

Fill gaps in skills provision

Meet growing demand for higher level qualifications

Tackle graduate talent migration

Build industrial partnerships

Promote careers within schools

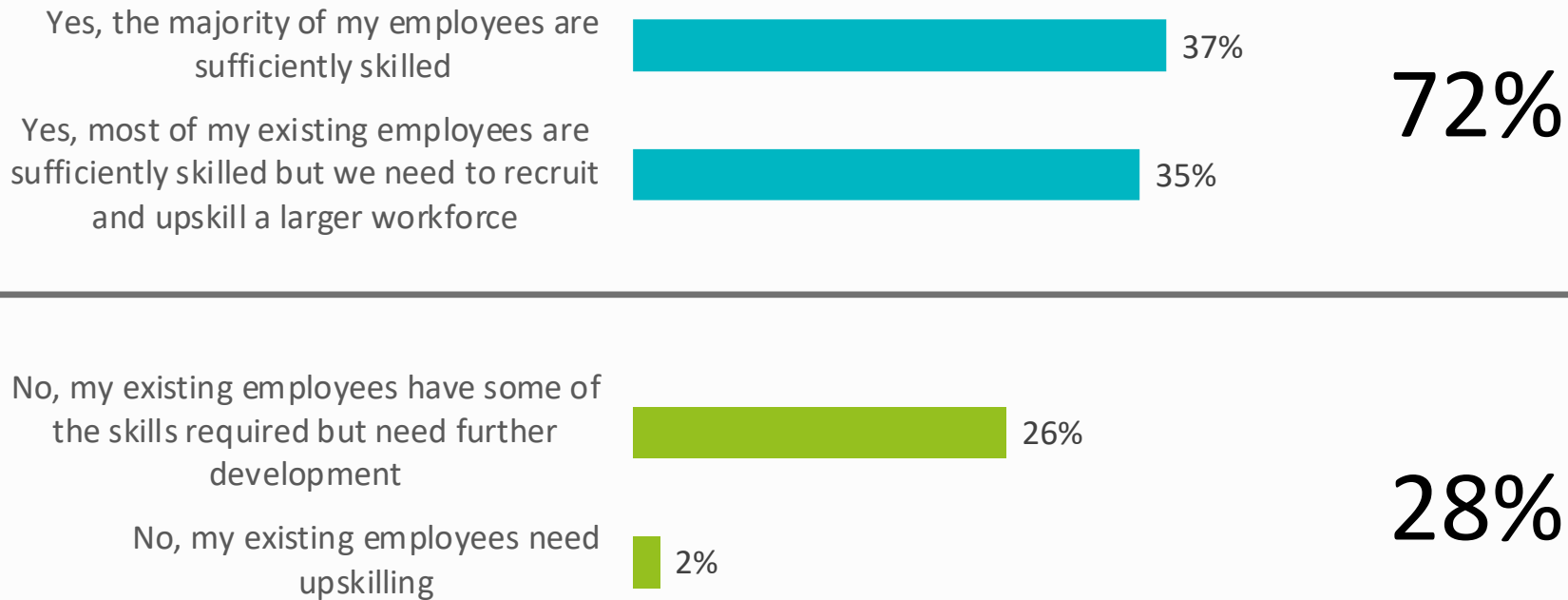
Combine resources and grow investment



POLL

Results from the LSIP Digital Skills Survey

Do your employees have sufficient digital skills to deliver your goods and services?



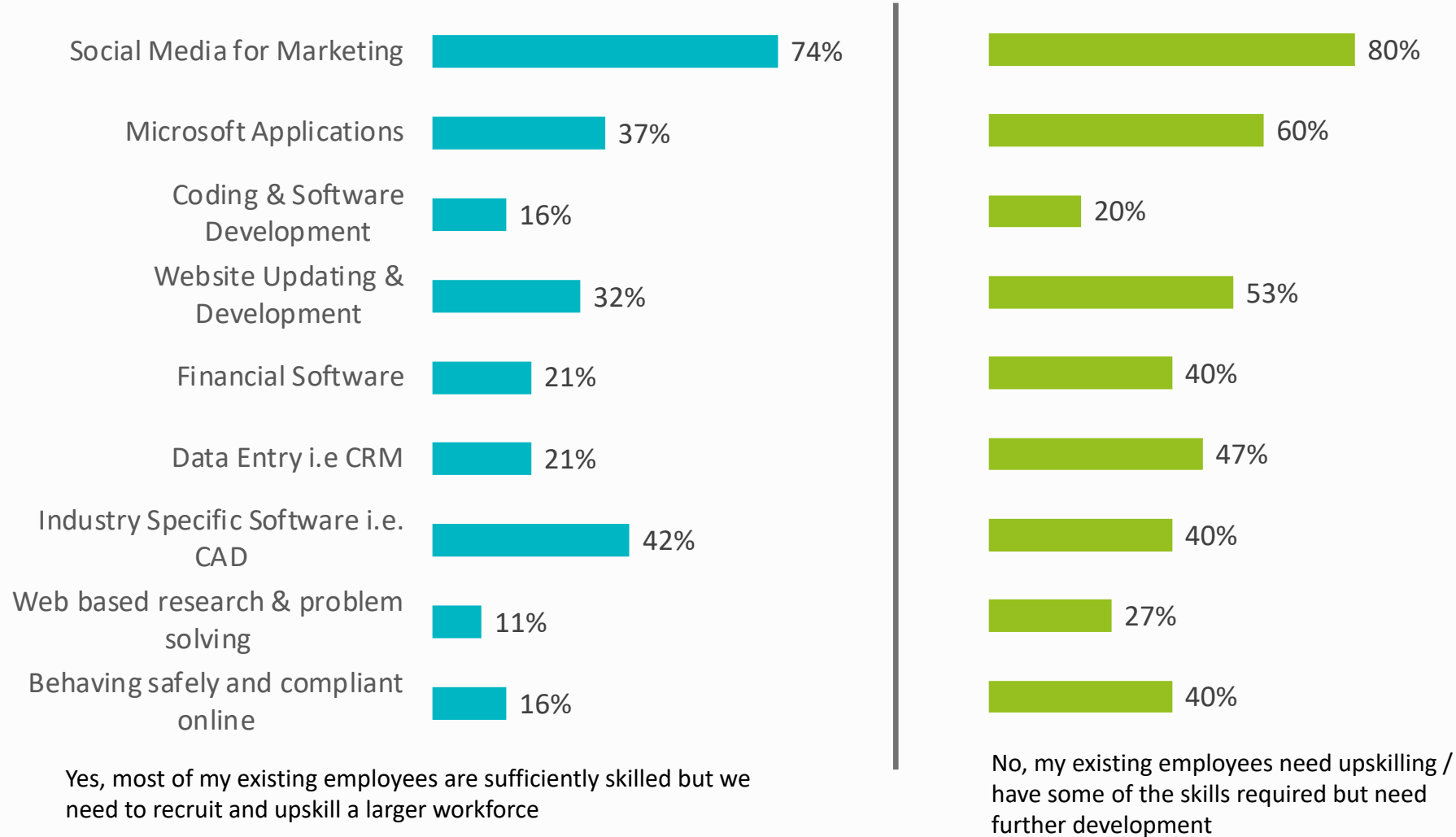
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POLL

Results from the LSIP Digital Skills Survey

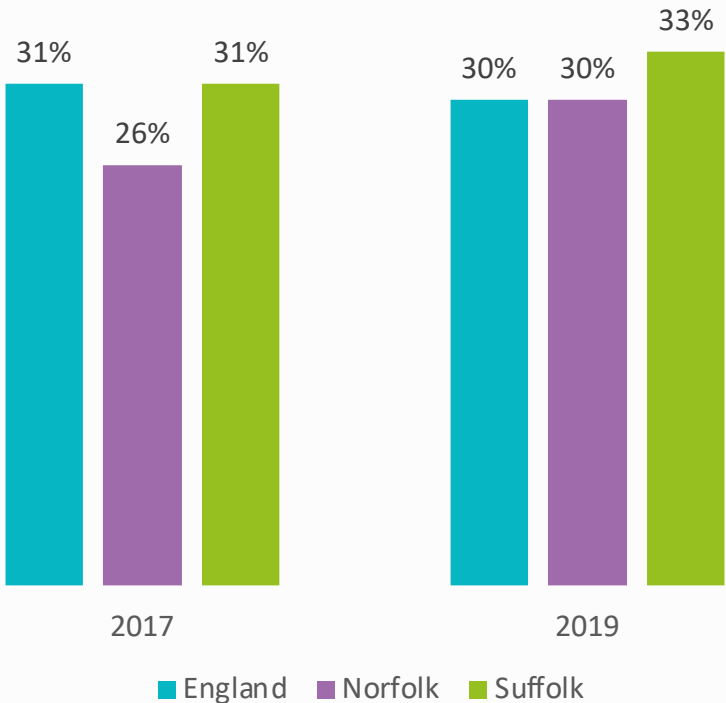
Which are the most important digital skills needed in your business?



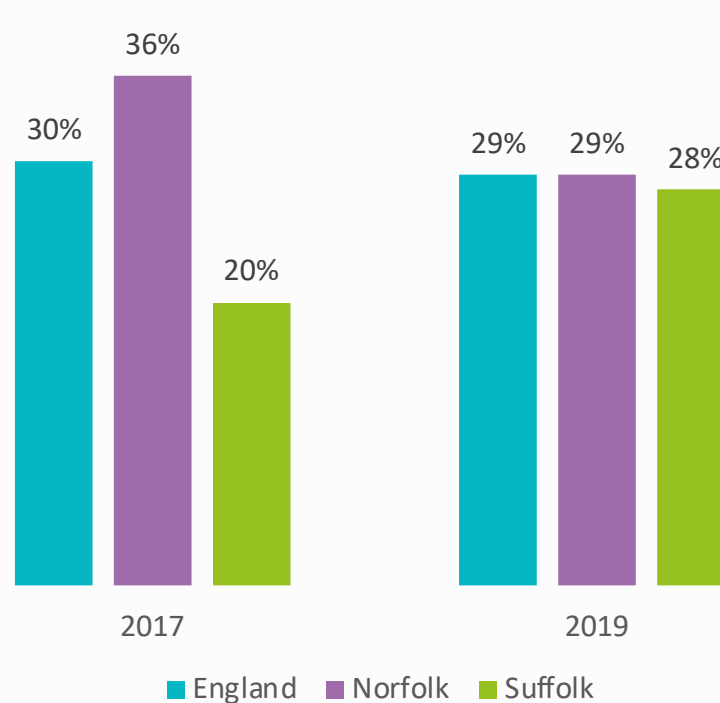
Results from the Employer Skills Survey

Looking ahead over the next year, employers were asked what skills will need developing among their workforce

Computer literacy / basic IT skills



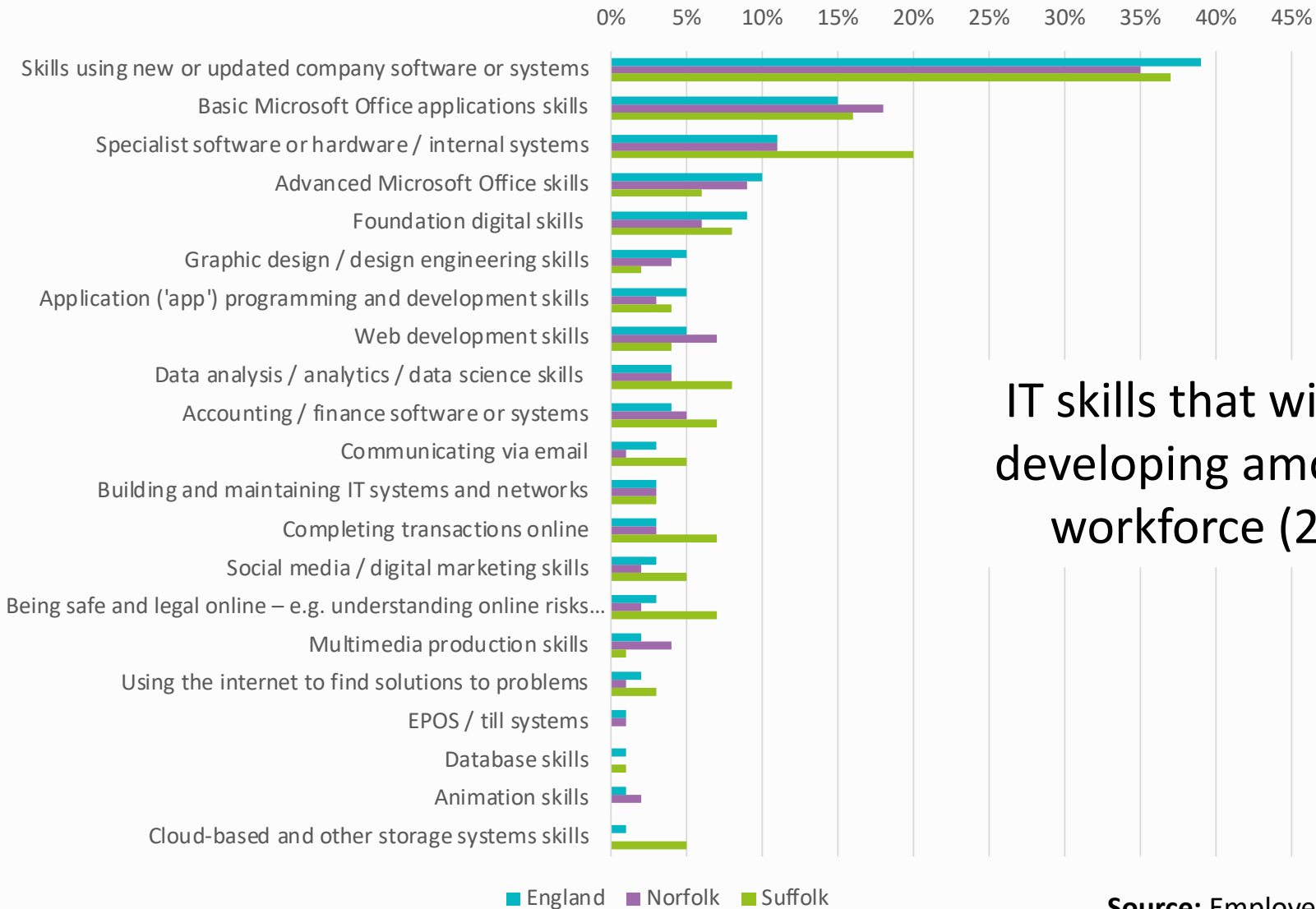
Advanced or specialist IT skills



Source: Employer Skills Survey, DfE



Results from the Employer Skills Survey



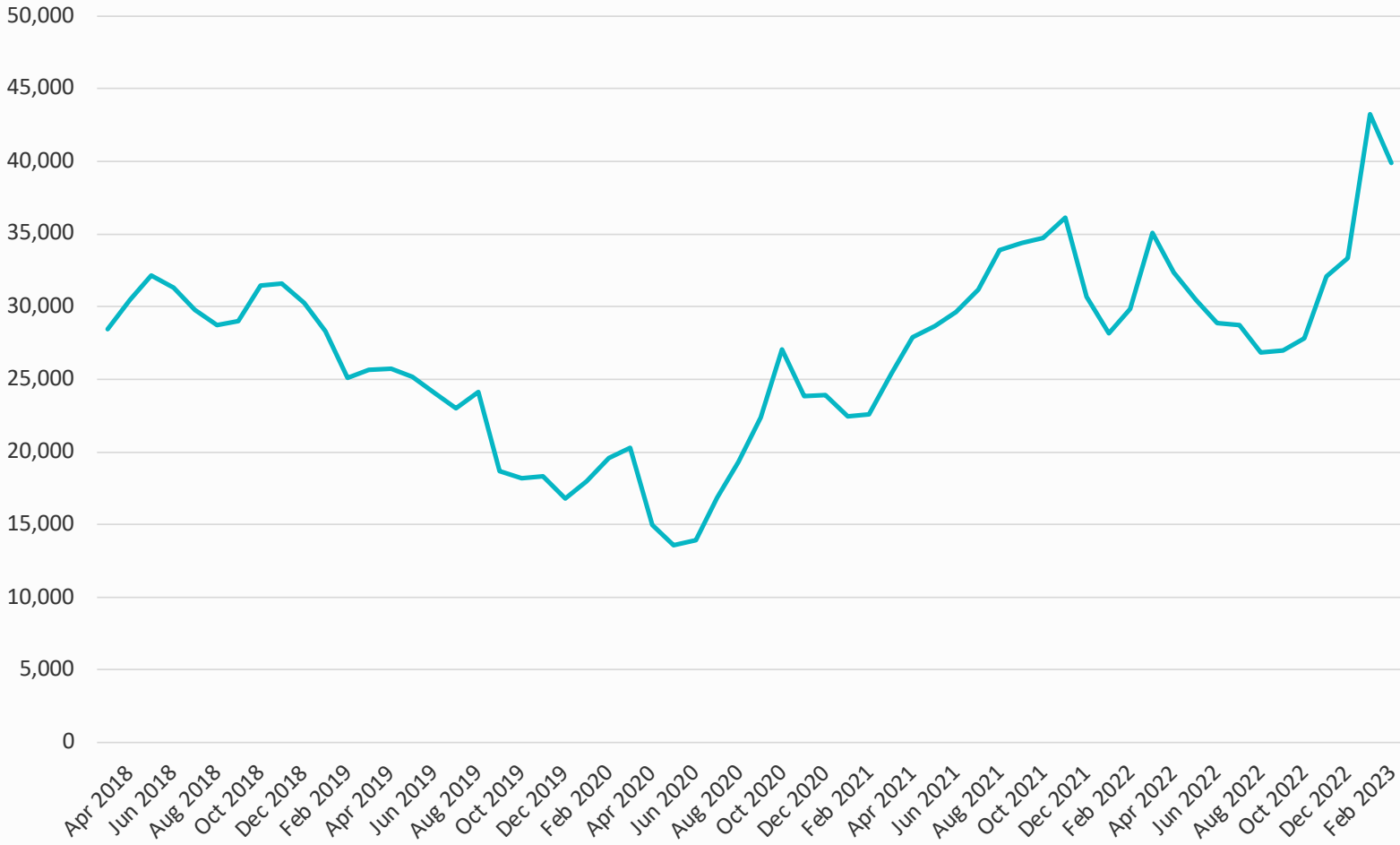
IT skills that will need developing among the workforce (2019)



Total Unique Online Vacancies

30

Total Unique Online Job Vacancies in Norfolk & Suffolk over time

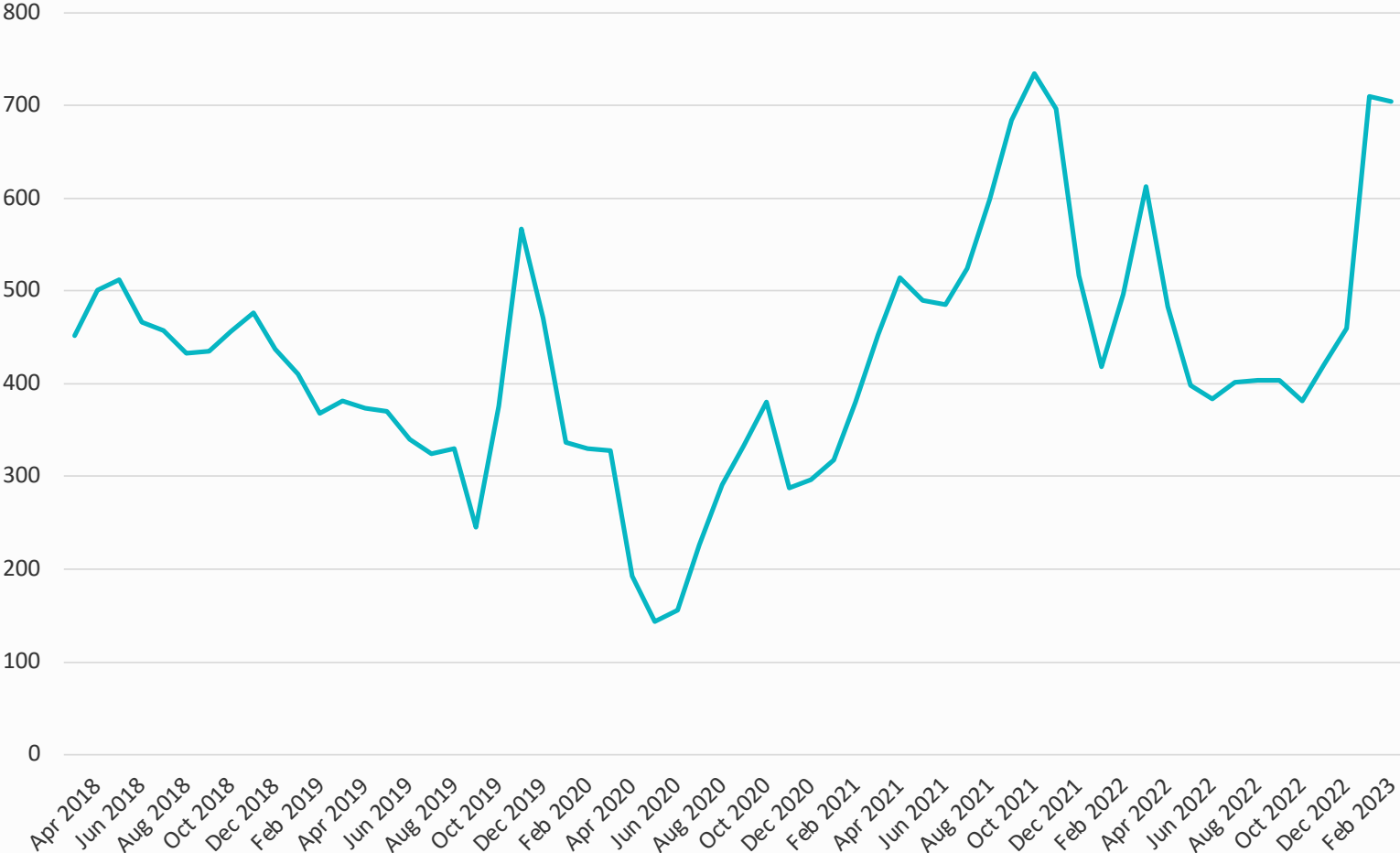


Source: Lightcast



Social Media

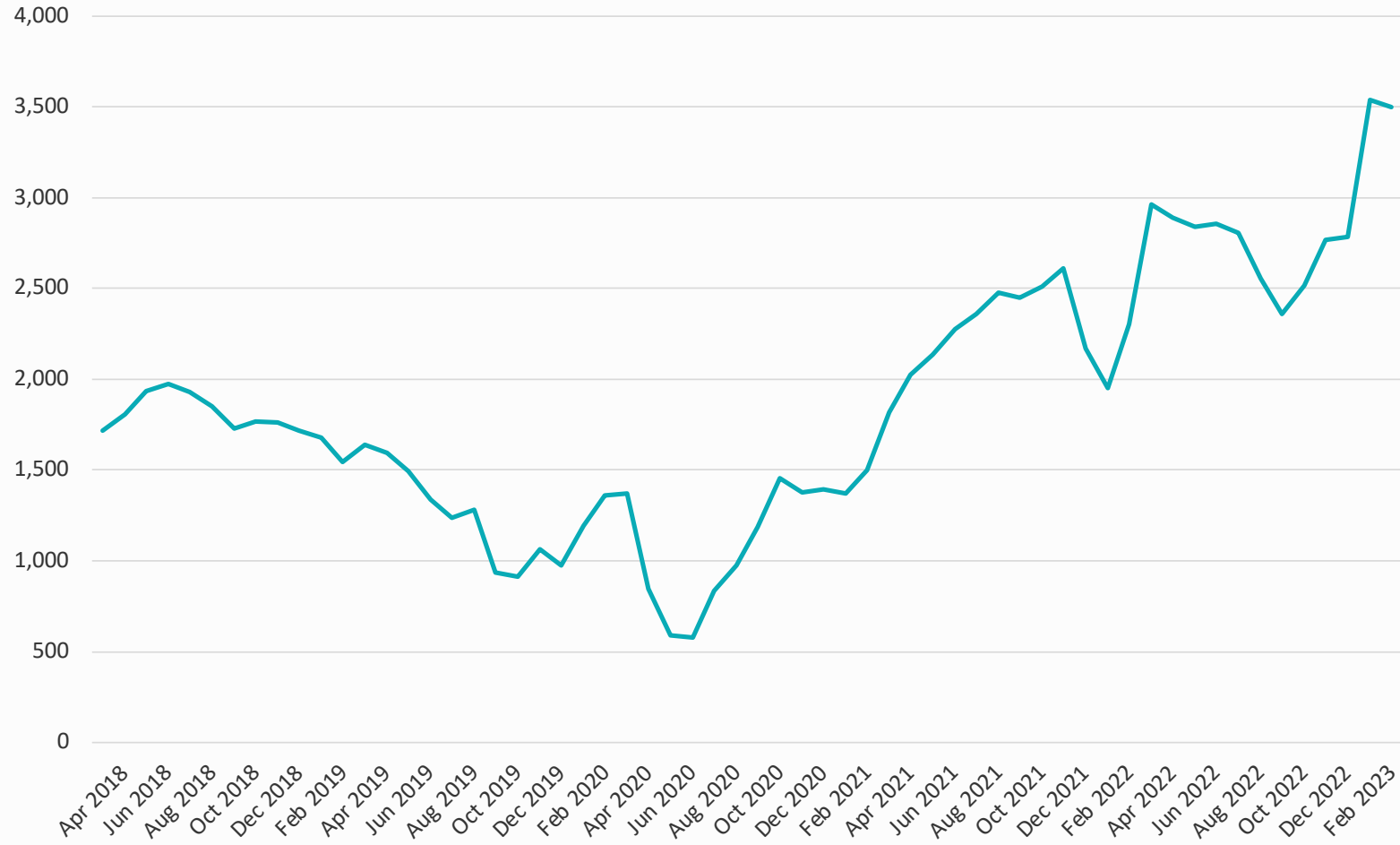
Vacancies the include the term 'Social Media' in Norfolk & Suffolk over time



Source: Lightcast



Vacancies that include the term 'Microsoft' in Norfolk & Suffolk over time

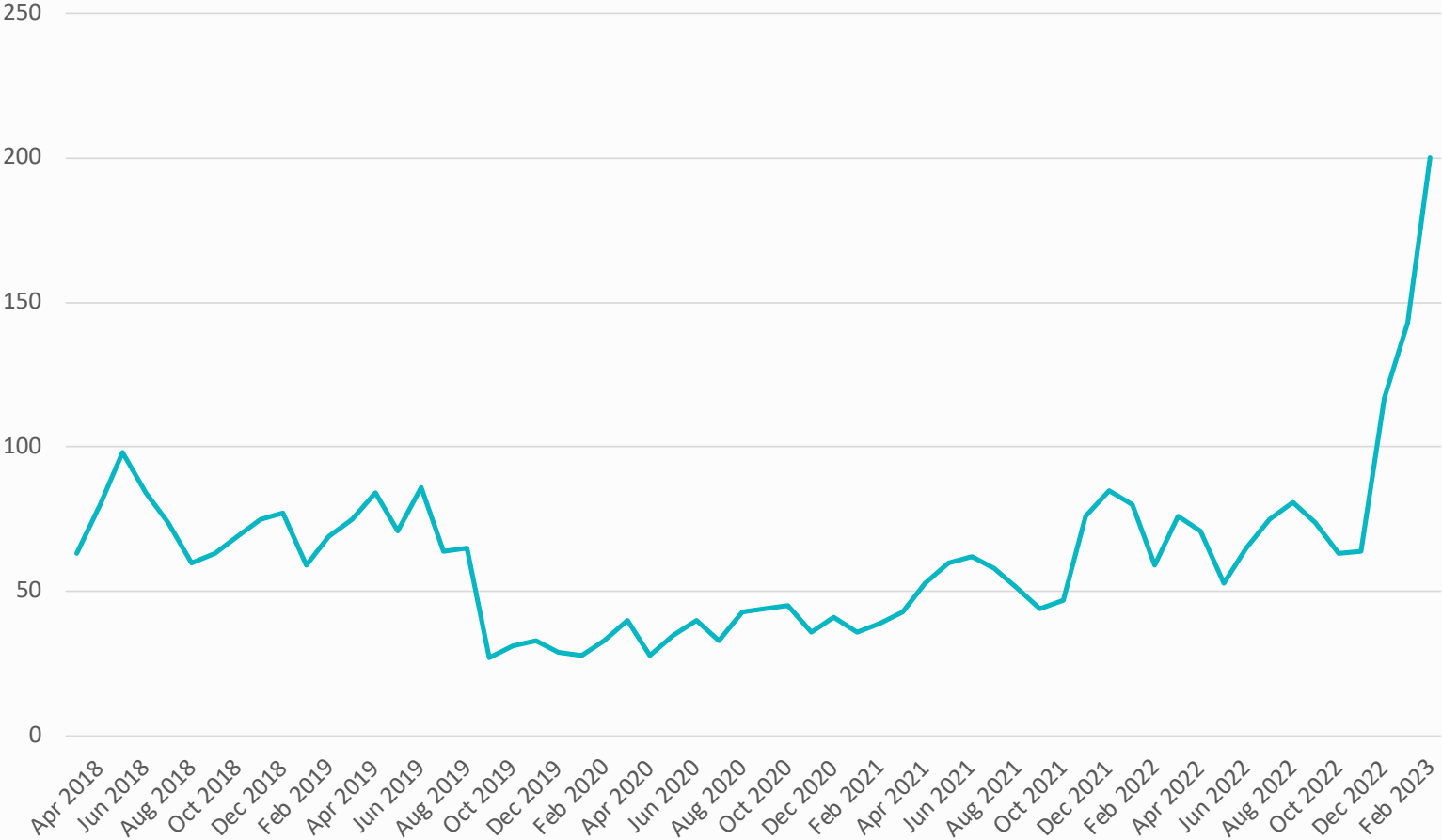


Source: Lightcast



Coding & Software Development

Job vacancies that include the terms 'Coding, Programming, and Software Development' in Norfolk & Suffolk, 2022

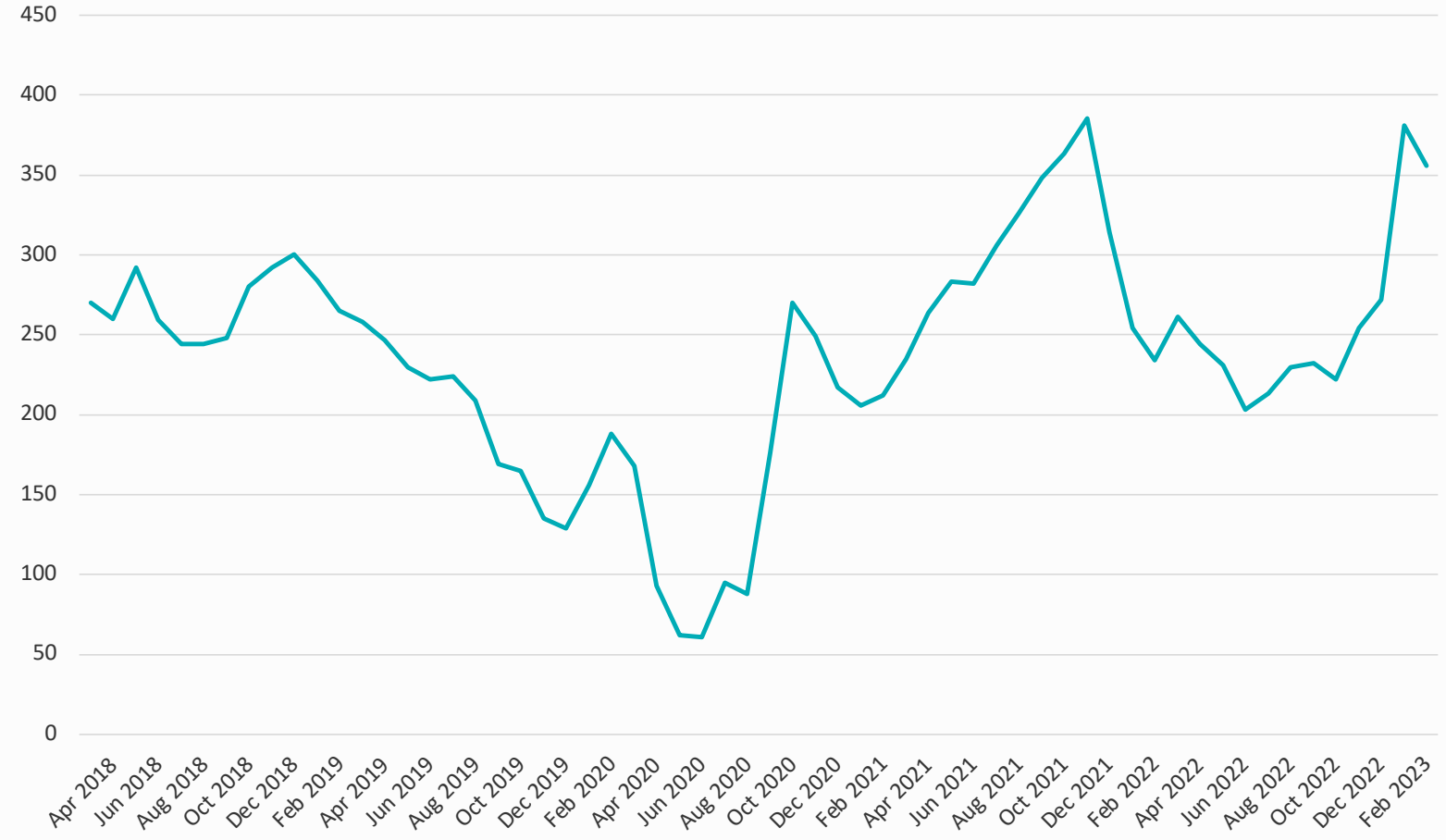


Source: Lightcast



Data Entry

Job Vacancies that include the term 'Data Entry' in Norfolk & Suffolk over time



Source: Lightcast



What skills are critical to your business and the most difficult to either hire or develop within your team right now?

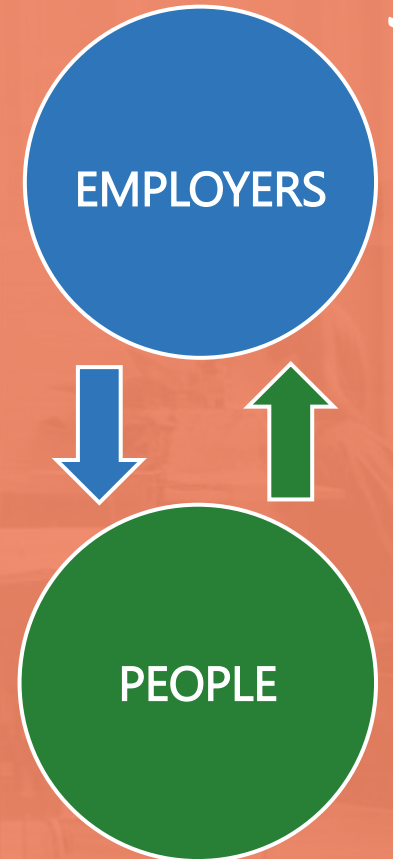
And in the future (2030)?



Section 3: Employer Perspective of Local Skill-Sets

- Sharing the evidence base
- What's your take?

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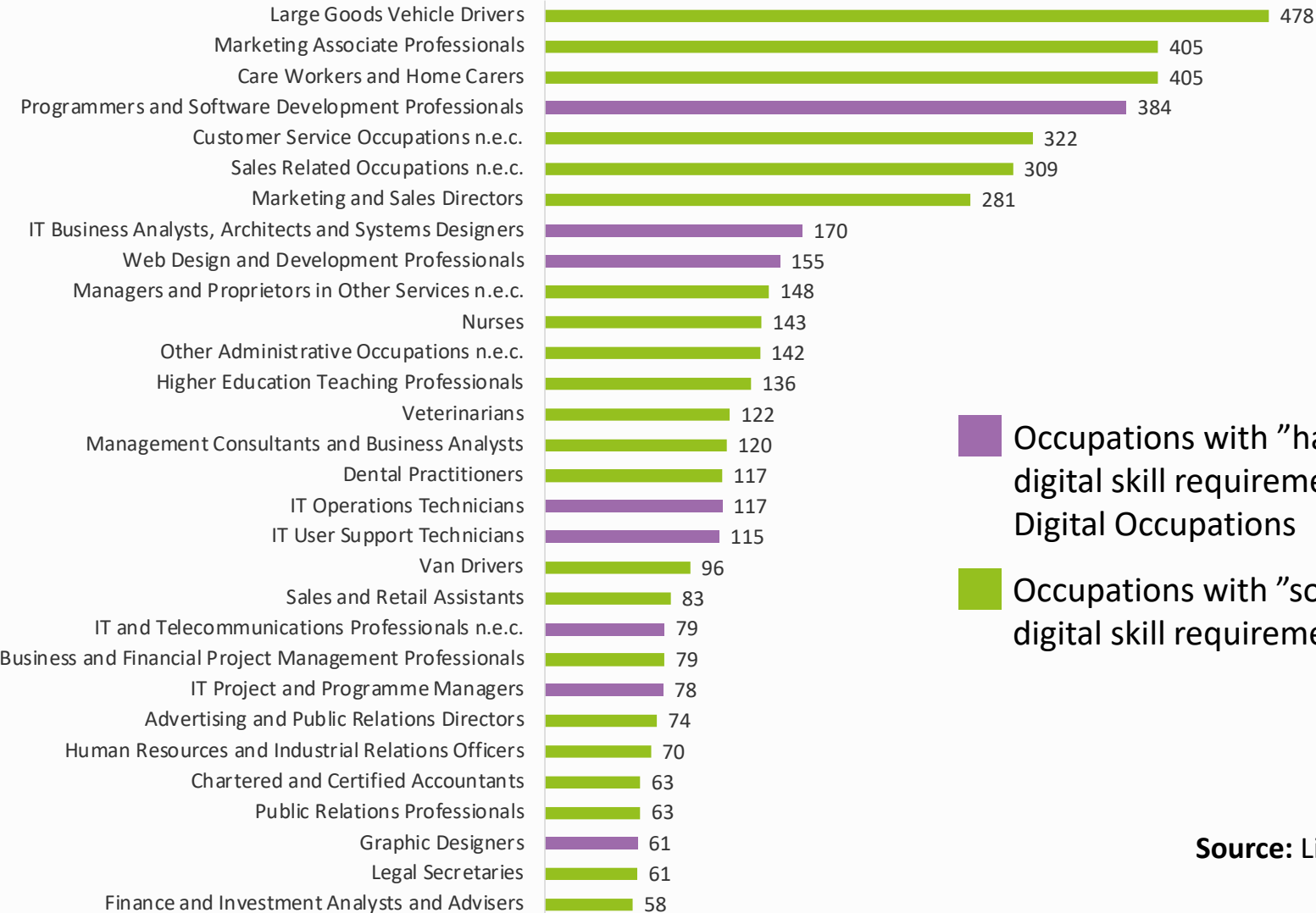
Local Skill-Sets– In Summary

- Employers made the point that, although the skillsets available in the local community are important and, for many employers, preferable, **remote working patterns mean that, especially for technical, desk-based roles, talent can be sourced from across the UK and beyond.**
- Employers concurred that **digital skills are increasingly required for almost all jobs.** The data demonstrates references to digital skills in job roles such as nursing and driver's jobs, which have not traditionally emphasised digital literacy.
- Employers raised the **differences between 'digital natives'** – younger people who have 'grown up' in a digital world **and older people** in fully utilising the potential of the digital applications available – sometimes described as a difference between 'minimal' and 'super' users.
- Within the tech sector, employers raised concerns about the **lack of gender diversity regarding technical roles** such as software development. However, there are some 'green shoots' regarding technical Digital Apprenticeships and in areas such as Social Media management.
- Although a national rather than a local issue, employers raised the **impact of the pandemic on local adults and young people** – especially in terms of self-confidence, resilience, and sometimes diagnosed mental health conditions



Where Demand Meets Supply

Top 30 Unique Online Job Vacancies in Norfolk and Suffolk that include the term 'Digital', 2022



■ Occupations with "hard" digital skill requirements – Digital Occupations
■ Occupations with "soft" digital skill requirement



Source: Lightcast

New talent? - what are your challenges in recruiting both 'generic' digital skills and digital 'specialists'?

How well equipped is your existing workforce for the digital skills required now and in the future?



Section 4: Employer Perspective of Local Skills Provision

- Sharing the evidence base
- What's your take?

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Provision – Employer Feedback

- Employers backed up the concerns raised in the survey about the **complexity of the skills landscape** and, thereby, accessibility of provision. Survey respondents are likely to be relatively well-connected with good networks, so the 35% not knowing of the provision is probably understated. Those employers in this position were also more likely to cite digital skills gaps as barriers to their growth.
- Although there were concerns expressed, on the whole, **employers demonstrated a real appetite to get more involved** in the local education and skills system with the view that digital skills development at all levels is particularly well-suited to work-based learning with widespread opportunities for residents across the board to engage and develop in a ‘real work’ setting.
- Partly due to the labour market challenges of traditional graduate talent routes, **employers are increasingly open to pathways such as Apprenticeships and T Levels**. Although participation levels as a proportion of digital occupations are still very small, it is at least growing – especially within ‘Information and Communication Technology, which is currently growing again exponentially post-covid with 50% of Apprentices aged 25+, 50% on Higher/ Degree Apprenticeships and more female Apprentices proportionally.



Provision – Employer Feedback

- **Adult digital literacy remains a concern for employers** – probably enhanced by the digitisation of most occupations. This is both for entry to employment skills and an upskilling of the existing workforce perspective.
- **Employers were very much focused on digital skills competence – in their own organisational context** – and not on specific qualifications – either at the entry literacy level or for higher level technical specialists. Qualification achievement seemed to be recognised as something for the individual rather than a business requirement.
- For both basic literacy and higher professional CPD requirements, **employers are increasingly utilising online learning approaches** rather than traditional short and long courses. They fully endorsed the Manchester Digital Skills Audit, which identified self-learning as the most common way individuals develop skills. This could provide a challenge for ensuring that publicly-funded learning provisions can prepare individuals for a self-learning environment and can also offer modes of learning to businesses that align with their needs.



Results from the LSIP Digital Skills Survey

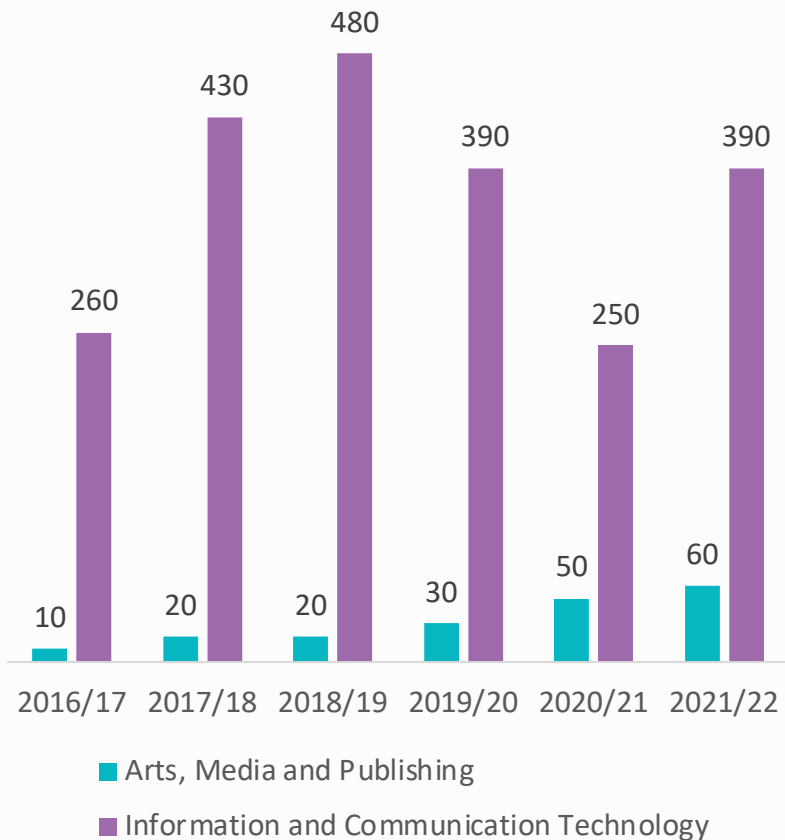
Do you know how to access your local training providers and are aware of the training provision available?



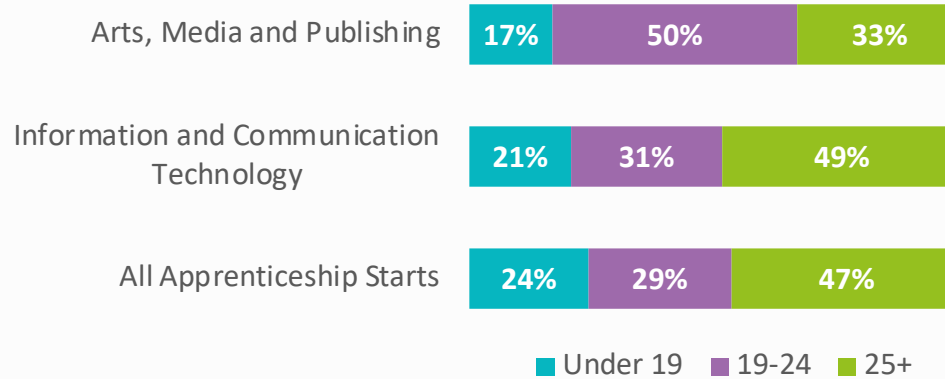
POLL

Where Demand Meets Provision

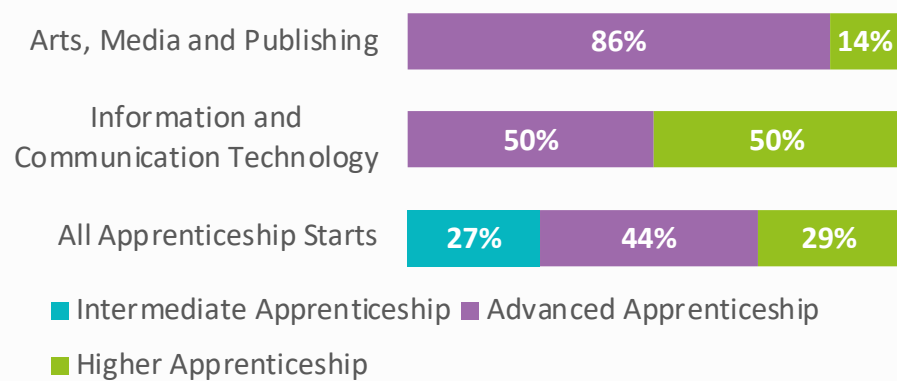
Apprenticeship Starts in Norfolk & Suffolk



Apprenticeship Starts in Norfolk & Suffolk by Age, 2021/22



Apprenticeship Starts in Norfolk & Suffolk by Level, 2021/22

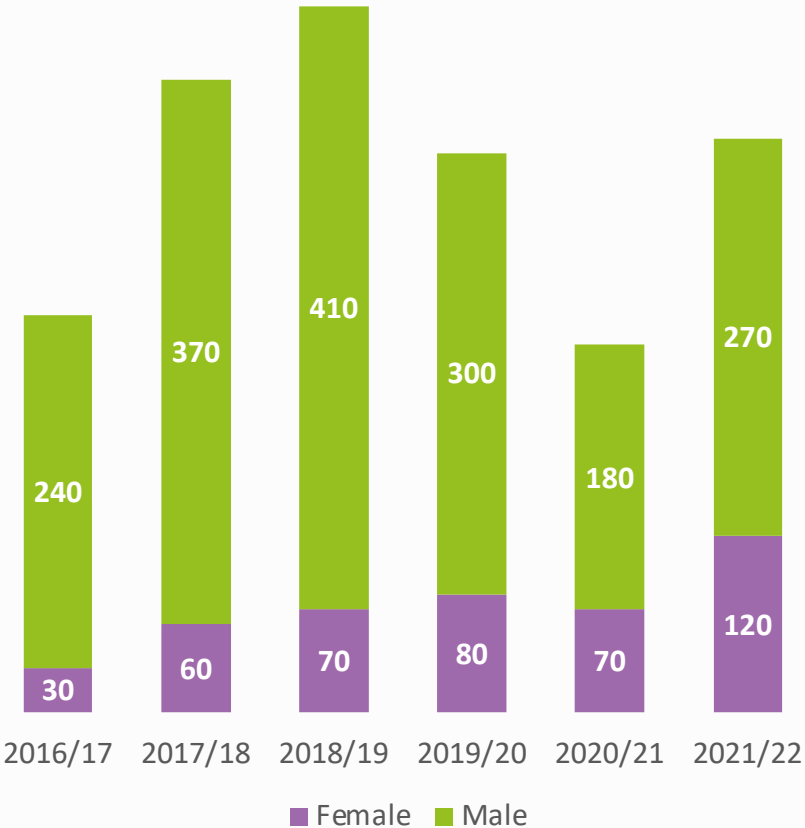


Source: DfE

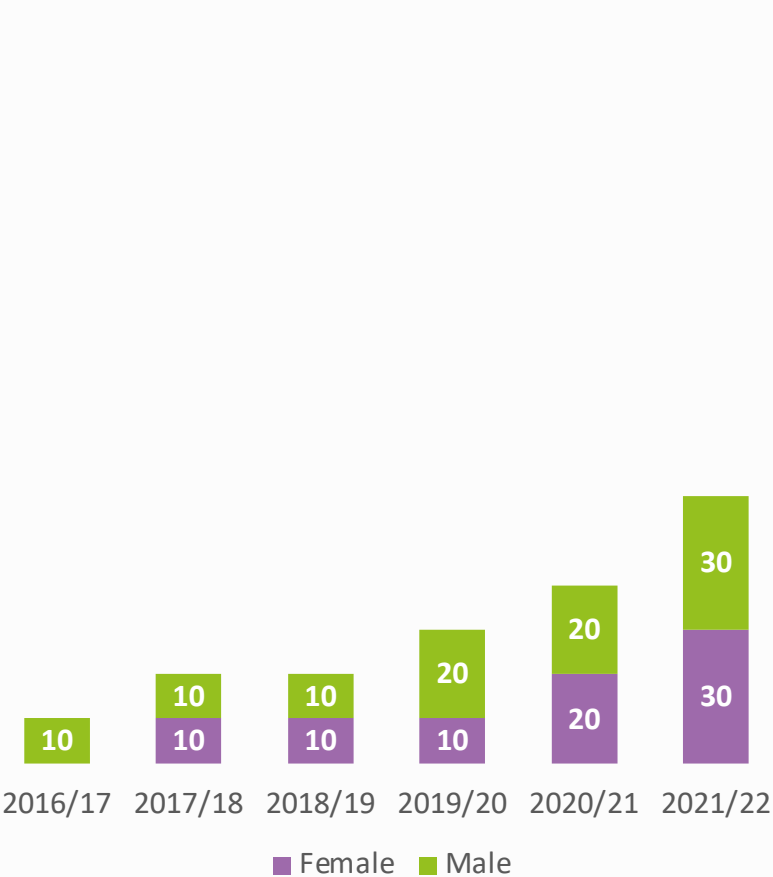


Where Demand Meets Provision

Information and Communication Technology Apprenticeship Starts by Gender



Arts, Media and Publishing Apprenticeship Starts by Gender

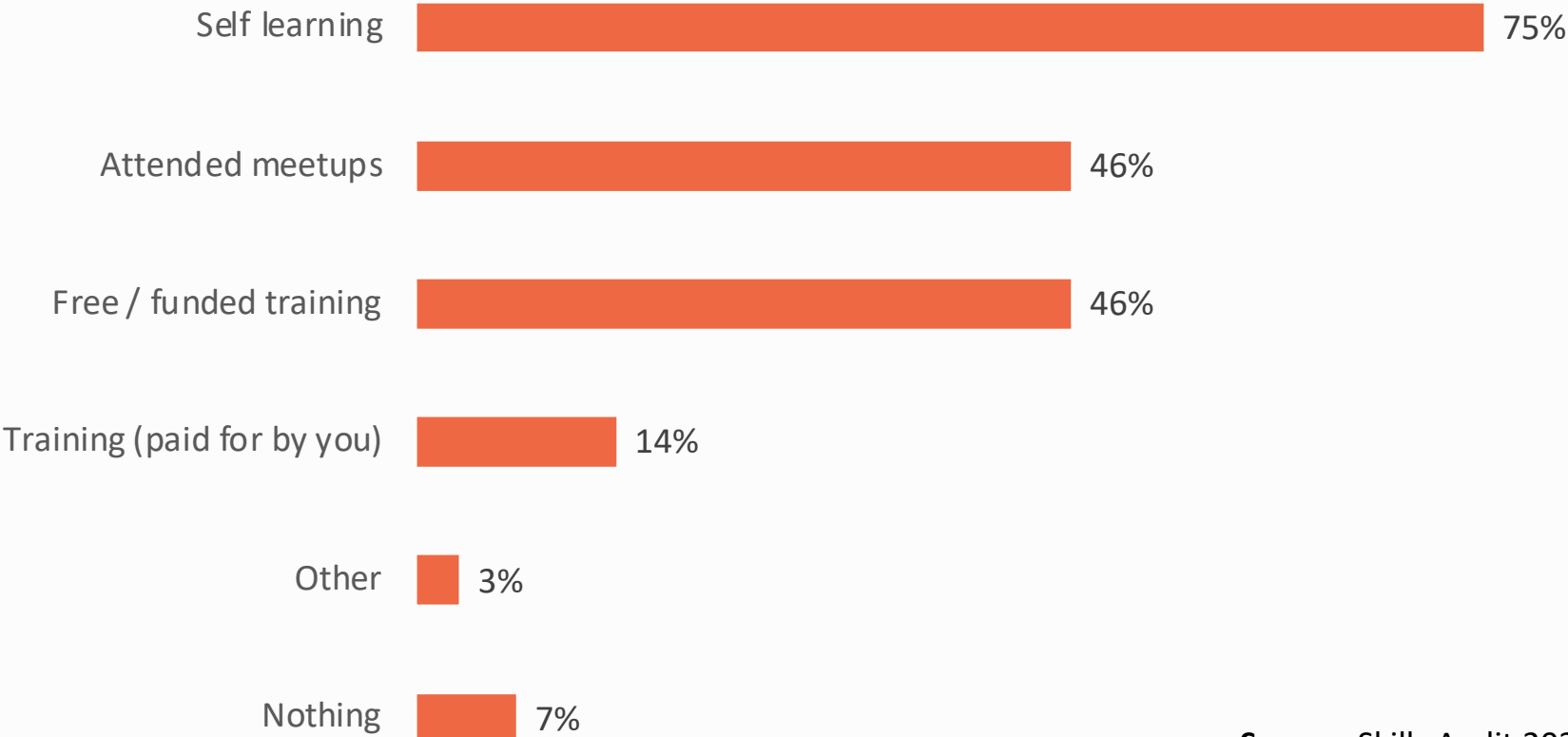


Source: DfE

Where Demand Meets Provision

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How individuals have developed skills over the last 12 months



Source: Skills Audit 2023, Manchester Digital



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Employer Discussion Point

How valuable has the publicly funded skills system been in identifying new talent/ upskilling your existing workforce?



What would improve digital skills in Norfolk and Suffolk?



References and Select Bibliography

- Department for Culture, Media, and Sport (2016)
- DfE – Employer Skills Survey
- DfE – Apprenticeship starts in Norfolk and Suffolk 2021/2022
- DfE – ICT and Arts/Media/Publishing apprenticeships by gender and Lightcast – Growth in Digital Sector Jobs
- Lightcast – Total unique online vacancies; social media, Microsoft, coding and software developer, data entry
- Lightcast – Top 30 unique online job vacancies in Norfolk and Suffolk that include the term digital (2022)
- Lightcast & Tech Nation – Digital Sector in Norfolk and Suffolk
- LSIP – Digital Skills Survey
- Manchester Digital, Skills Audit, (2023)
- Tech Nation – ‘A Bright Tech Future’ – <https://technation.io/bright-tech-future/>



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