

# Driving the future of transport – addressing the skills gap

March 2023

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# Foreword



Liz James, Senior Security Consultant, NCC Group  
& Vice Chair of the techUK Intelligent Mobility and  
Transport Steering Council

**I'm delighted to present this report which highlights key challenges around skills and proposes routes forward for the intelligent transport industry. It is the culmination of several months of consultation with key stakeholders and industry figures.**

In my cross-industry role chairing techUK's Intelligent Mobility and Transport Steering Council, it is clear to me that the success or failure of the high-level objectives associated with this industry depend upon the public sector, industry, and academia being well-resourced and able to adapt to the constantly evolving market challenges.

As the transport sector innovates in order to solve complex challenges around efficiency, safety and reliability, it must also foresee the challenges in skills that are emerging concurrently. The specific nature of these challenges isn't possible to precisely predict, however, it is easy to recognise the importance that both an appropriately skilled workforce will have in addressing them and in educating the public on how to make best use of these solutions as they emerge.

The recommendations made in this report are aimed at addressing these challenges holistically, spanning from early years education through to retraining and cross-skilling mid-career. They recognise the urgent need to not just acknowledge the challenge but take action.





# Executive Summary

The rate of innovation we will see within the transport sector over the next 30 years cannot be overstated. Across all modes – road, rail, air, and sea – new technologies and data systems are being developed and integrated to drive remarkable outcomes.

This is being driven by the consumer need for data-enriched services to make informed decisions, the urgent need to decarbonise and the push to remain competitive as digital transformation sweeps our economy at a staggering pace.

Passengers and the public will have noticed much of this - take the growth in travel planning applications, ride-sharing and ticketing developments in the last twenty years as an example - but even more has happened in the backend. The 'deep tech' that has revolutionised everything from maintenance and scheduling, through to the design of vehicles and integration of modes.

However, transport faces a significant skills challenge, and the opportunities will not be realised unless we have enough engineers, data scientists, developers, and technologists to make this change. This report looks at the skills implications for three prevailing trends in the transport sector: new mobility, low or no carbon transport, and integrated transport.

In response to this, techUK, the UK's technology trade association, has developed five recommendations for government that we feel will drive measurable impact.

Firstly, we are calling for the establishment of two new forums: a cross-modal digital skills taskforce and a Transport Digital Champions Advisory Council. These groups will ensure best practice across the sector's often fragmented landscape is shared, strategies developed holistically and the sector is recognised as a thriving and dynamic place to work.

A further two recommendations – Apprenticeship Levy reform and a Digital Skills & Productivity Tax Credit – we believe can drive step-changes for employers not just in transport but the entire economy.

Finally, we are calling for a clear policy roadmap from the Department for Transport to address the challenges outlined in its transport labour market and skills consultation which closed in May 2022. Employers need policy certainty and foresight if they are expected to invest in the UK for the long-term.

# Recommendations

## **1. The Department for Transport should publish a policy roadmap for addressing issues identified within its transport labour market and skills consultation**

We recommend the Department for Transport publishes a policy roadmap, supported by actions for government, following the feedback it received from the transport labour market and skills consultation which concluded in May 2022.

This should set out clear next steps for how it will seek to address the STEM skills shortage within the transport industry.

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## **2. The Apprenticeship Levy should be reformed to transform its impact**

We recommend that the Treasury should increase the rate of transferable funds of the Apprenticeship Levy from 25% to 80% to allow high quality training to cascade down through supply chains. Additionally, the lifetime of the funds should be increased from two to five years to increase. By combating overall issues with the apprenticeship levy, businesses would ultimately find it easier to use their funds within two years but at this moment, a short to medium-term solution is required.

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## **3. A Digital Skills & Productivity Tax Credit is created to drive business investment in training and productivity-enhancing technology**

We recommend the Treasury creates a Digital Skills & Productivity Tax Credit to be designed in a similar way to the R&D Tax Credit which has been shown to bring important social and economic benefits beyond the businesses that claim it.

This tax relief can also help SMEs reduce lost earnings for those periods in which the company is adapting to the new technology, as well as offset other costs such as the training itself. Providing additional incentives and support for SMEs to meet their desire for tech adoption has a huge payoff.

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#### **4. Government should lead the creation of a new digital skills for transport taskforce**

We recommend the Department for Transport and Department for Education come together to establish cross-modal digital skills taskforce for transport. This advisory body would be tasked in drawing on best practice, insights, and recommendations from across transport's fragmented landscape to develop actionable guidance for employers.

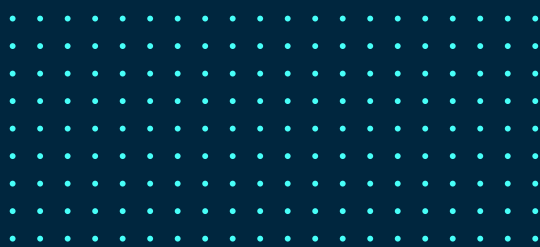
Representatives from major trade bodies, industry, government, public sector agencies and local government would be empowered to develop transport-specific resources for addressing the digital skills challenge and get ahead of issues.

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#### **5. Government should work with industry to create a Transport Digital Champion Advisory Council**

We recommend the Department for Transport partners with the industry to establish an advisory board of diverse and inspiring leaders who can act as visible champions for the sector.

Individuals appointed to this taskforce will act as a sounding board to the Department for Transport for how it can address recruitment issues. They will also be expected to leverage their appointment, becoming public champions for careers in transport innovation.



# Chapter 1: What is the future of transport?

All quarters of the transport sector, from Original Equipment Manufacturers (OEMs) to mobility service operators and infrastructure owners, are innovating at a rate of knots.

What the future of transport will be is a contested territory but for the purposes of the report, and to frame our thinking, we see three prevailing trends that are driving innovation forward.



## 1. The creation of 'new mobility'

As technology progresses, we are seeing new forms of mobility coming on-stream and entering the transport mix. For example, connected and automated mobility (CAM) is developing rapidly, generating exciting use cases across logistics, public and personal transport.

Reports assessing the potential impact of technology, and more specifically automation, on different areas of the economy have [highlighted the transport sector as one of the most automatable industries](#). The Connected Places Catapult estimates that the CAM sector has the potential to directly create [49,000 new jobs by 2035](#) and indirectly create a further 23,000 jobs in the innovation ecosystem.

Automation in transport has the potential to bring huge benefits to the UK economy, transport services, and the wider population, but [the pace of change is likely to be gradual](#) and its impact on jobs will vary depending on the roles or types of transport concerned. The continuous waves of technological change will require workers to constantly update their skills incrementally and at pace.

Advances in data processing and communications mean that transport is also becoming more connected, able to exchange data with the infrastructure that supports it. Such a shift requires skilled technicians in data science to architect solutions at the rate they are needed. Critically, as transport becomes more cyber-physical, there is an urgent need to ensure the entire transport ecosystem (across both public and private sectors) has the right level of cybersecurity training and expertise to ensure systems can be kept safe and secure.

These advances present new opportunities for industry bodies to provide a collaborative and unified platform for data sharing to further accelerate change.

Finally, the urgent need to address congestion and improve air quality is also encouraging greater use of shared and micro-mobility and fostering an innovation landscape focussed on driving better outcomes for quality of life and environment.

## 2. Low or no carbon transport

Realising the urgent need to decarbonise the transport sector is driving huge levels of innovation that have recently been headlined at COP26/27. Analytic-based technology such as AI and Machine Learning is being applied to drive better environmental performance and efficiency in the sector, demanding more skills in computer science and data analysis.

With the sector slowly embracing such innovative and future driven analytics, we can extend this further by using the outputs to reduce carbon activity and making better use of our roads, rail, sea and air traffic.

The need to reduce our dependence on fossil fuels has also been the trigger for investment in battery and alternative propulsion technologies including hydrogen and sustainable fuels. This will have a significant impact on the labour market, as production shifts from internal combustion engine vehicles towards electric vehicles. This shift has already been cited as the reason for major restructuring within large automotive companies.

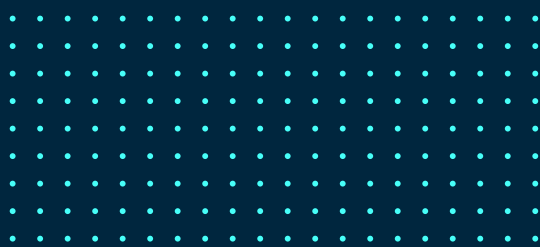


Finally, the transition to greener transport must be supported by first-class fixed and digital infrastructure. For example, the government in its [Electric Vehicle Infrastructure Strategy](#) projects we will need 300,000 public chargepoints by 2030. Delivering this means that businesses and public sector partners will need to ensure that the right skillsets exist in-house to plan, deliver and maintain this vital infrastructure.

### 3. Integrated transport

The industry is working hard to drive better experiences for its passengers and commercial customers through better integration.

Through the applied use of data and moves to facilitate greater interoperability, a previously fragmented transport landscape is becoming more integrated. This in turn is driving capabilities for multi-modal transport, mobility as a service (MaaS) and innovation in fares and ticketing.



# Chapter 2: Mind the (skills) gap

There are three broad categories that sit under the umbrella of “digital skills”.

To understand where our future skills need lies, it is important to identify and anticipate the supply and changing needs of each category.





### **1. Essential digital skills for life**

Essential digital skills are those that are required to make simple use of digital devices and functions such as navigating a website to access a public service or being able to send an email. This is a foundational level of computer and internet literacy.

### **2. Digital skills for the modern workplace**

Digital skills for the modern workplace are an intermediate level of understanding and skill sets that use digital and tech effectively on a day-to-day basis. While the digital skills needed by the general workforce are likely to differ across sectors, there will be some requirements, including confident use of tools, that apply across all sectors.

techUK members and stakeholders consulted in the preparation of this report highlighted the particular importance of these skills to ensure the UK's workforce is prepared for the ever-greater augmentation of tasks within job roles as technology becomes more embedded and sophisticated.

### **3. Higher-level technical digital skills**

Higher-level technical digital skills are specific skills that include data analysis or coding as well as digital transformations and emerging technologies for example Artificial Intelligence (AI) and machine learning (ML) requires technical and specialist skills.

**This report focuses on categories two and three:** Digital skills for the modern workplace and Higher-level technical skills. However, techUK recognises that the need to drive essential digital skills for life should not be underestimated in the context of digitalisation in the transport sector – building a skills base is the only way to use new technology. In the UK, **11.8 million adults (1 in 3 of the workforce) still lack** the Essential Digital Skills for Work. Despite the pandemic increasing people's digital use cases, millions of people are trapped in the 'hidden middle' – between digital exclusion and higher-level digital skills. This includes people who are consumers of the transport sector goods and services. Consequently, the UK also needs to drive digital literacy and cyber literacy as a whole.

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## QR codes for smarter transport

QR codes are now a widely adopted technology within the transport sector, driving better customer experiences for ticketing. In February 2023, Transport Secretary Mark Harper announced his intention to support widescale digital adoption in ticketing, partly through the creation of Great British Railways. The West Yorkshire Combined Authority has put QR codes at the base of every timetable case at 14,000 bus stops. While there are clear benefits to doing this, people still need basic digital skills to be able to access this service, and risks exclusion if not handled correctly.

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## The scale of the challenge for transport

There were more than 45,000 vacancies across the transport and storage sector in February 2023 according to the **latest available figures from the Office for National Statistics**.

Common recruitment issues reported by employers:

- Competition with others in a growing sector.
- High levels of competition for workers in key technical roles.
- Low number of applicants.
- Struggling to find certain skillsets and quality to meet technical roles.
- Low number of applicants with qualifications that are required for the job.

There are many reasons why we do not have enough workers with the right skills in the right places. This includes: a lack of suitable candidates with technical skills or knowledge, a lack of candidates with experience, or a lack of industry knowledge.

We are also seeing salaries in the tech sector are continuing to rise, while on the job market demand for tech talent is outstripping supply. **Talent recruitment consultants have found** that almost half of filled vacancies are 'ghosted' by candidates receiving better offers, and six-figure salaries are becoming commonplace.

**More than  
45,000  
vacancies  
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## CGI training across Europe for graduates

In the UK, CGI offers a number of apprenticeships that enable talented students to gain a degree debt-free while embarking on their professional careers. In Finland, the Future Talent Program offers hundreds of “traineeships” each year for a duration of 4-5 months. In France, CGI offers intensive, development programs to help new university graduates, as well as individuals with a firm grasp on IT, hone and develop the skills needed to succeed. In the Czech Republic, CGI hosts IT training “bootcamps” for an intensive five-month program, with graduates offered full-time jobs with CGI upon completion.

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### 4. What digital skills does the sector need for the future?

According to a study [commissioned by the Society of Motor Manufacturers and Traders \(SMMT\)](#), connected and autonomous vehicles alone are set to add £51bn a year to the UK economy by 2030, so there is plenty to be excited about when it comes to innovation. But at the moment, we are not able generate digital skills at the pace and scale that the economy needs and to meet the net zero challenge.

The transport sector requires people with engineering or scientific backgrounds. techUK and its members have seen a growing mismatch in the supply and demand of digital skills in the UK. The current skills gaps in AI, data analytics, and cloud for example, show the depth of the work needed to upskill and retain people. Such technologies are creating requirements for specialist skills that the labour market is struggling to supply which has led to intensifying competition for talent. [62% of UK business executives](#) say that their tech talent pool does not have the capability they need to deliver their digital strategy.

According to a report by the [Learning & Work Institute](#), 92% of organisations state that digital skills are key to success, helping to drive growth, innovation, and productivity.

The significance of this on organisations is evident: two-thirds of employers believe that a lack of digital skills will affect the profitability of their business. For example, [The Social Market Foundation \(SMF\) has warned](#) of a skills shortfall among mechanics trained to service and repair electric vehicles (EVs). Shortages of qualified technicians risk driving up servicing costs and potentially leaving some drivers unable to have their cars maintained properly.



Technical engineering skills (adapted from Glassdoor)

**Data analysis** **Robotics**  
**Programming** Systems design engineering  
**Troubleshooting** Data and cyber security  
**Quality control** **Cloud** **Project management**

Customer experience skills (adapted from Hays)

**Critical thinking** **Teamwork** **Adaptability**  
**Empathy** **Communication**  
Problem solving **Creativity**  
Time management

Leadership skills (adapted from IMD)

**Decision-making**  
**Relationship building**  
**Employee motivation** **Negotiation**  
Conflict management

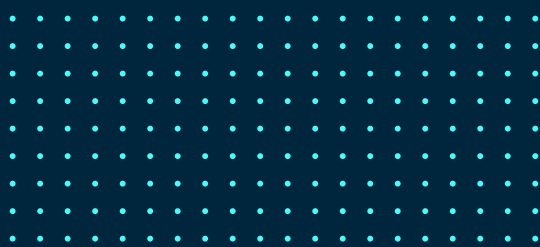
## 5. Cross-skilling to ensure people can work better together

**IBM has found** that nearly 7 in 10 tech job seekers and tech employees believe that potential recruits lack the skills necessary for a career in AI. Although technical capabilities are vital for a career in the sector, problem solving is considered a critical customer service skill needed for tech roles. However, tech recruiters often have difficulty finding applicants with this aptitude along with shortfalls in critical and strategic thinking.

Employers are looking for different human aptitudes and competencies that are required in for automation in new mobilities. These fall under Customer Experience skills and Leadership skills: complex problem solving, creativity, critical thinking, cognitive flexibility, collaboration, leadership, and perhaps most importantly the ability to keep learning.

This requires a focus on cross-skilling, which is the process of developing new skills that apply across different functions. People need to expand their knowledge sideways so that they can efficiently manage multiple responsibilities and collaborate better. Rather than being confined to one area, cross-skilling gives people the flexibility to learn outside their area of expertise to stay relevant in an ever-changing market. Facilitating this type of training is critical to supporting the development of Customer Experience skills and Leadership skills.





# Chapter 3: Building a skills pipeline

If the transport sector is to achieve its goals around net zero, new mobility and integrated transport, there must be a much wider range of qualification and training routes into the sector.

Currently, businesses are supporting early education but what is also required is prioritising new approaches to skills development within an existing workforce and in previously untapped talent pools.



## 1. Supporting early education

We are holding back the next generation in learning about digital and transport. Adapting the curriculum to ensure young people today are equipped for the jobs of tomorrow is vital. techUK [surveyed parents working in tech](#) to find out what they thought the future of work held for their children. Parents working in tech roles are not convinced that, as it stands, the education system will help develop the opportunities required for their children. 73% of those surveyed felt the curriculum did not place sufficient emphasis on the types of skills that would become more vital in the future world of work – with 90% believing their children would need to retrain throughout their lives to keep up with the pace of technological change.

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**ATKINS**

Member of the SNC-Lavalin Group

### Atkins launches industry first STEM School Governor's programme

Atkins has become the first organisation in the engineering and construction sector to establish a programme with Governors for Schools, a national education charity that finds, places and supports governors on school and academy boards. The programme will see Atkins professionals work on a voluntary basis with primary and secondary schools across England to help promote STEM subjects and raise the profile of engineering as a career path in a direct response to the sector's skills and diversity challenges.

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**Dell Technologies research shows** that

Generation Z adults (18–26 years) recognise the value of developing the necessary digital skills for their future careers. Over half of UK respondents said that school only taught them very basic computing skills and 40% claim school did not prepare them with the technology skills needed for their planned career.

There is an opportunity to introduce and integrate digital skills within the school curriculum in a way that has tech industry support. We need to ensure young people are not put off at school and are encouraged to see what doors can be unlocked to them by studying STEM. If this means revising how this subject is portrayed or investing further to ensure teachers are able to teach it well, then this is an investment that should be made. The Prime Minister, in his first speech of 2023, **announced a plan** to move towards a system where all children study some form of maths to the aged of 18. techUK welcomes the focus on driving STEM skills but awaits the outlining of policy details.


**TCS has invited students in the North of England to design a digital solution in support of STEM learning**

Tata Consultancy Services (TCS), in collaboration with the Co-op Academies Trust, has invited students from eleven Co-op Academies across the North of England to design a digital solution that will help year nine pupils choose the right GCSEs, as part of its 2022 goIT Co-op Academy Challenge. goIT is TCS' flagship programme, which seeks to bridge the science, technology, maths and engineering (STEM) learning gap in schools and has benefitted more than 130,000 students worldwide since 2009.

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The transport industry is a large and varied sector, but unfortunately young people often have a narrow view of the roles and careers transport can offer, rather than understanding the breadth of opportunities available to them. techUK wants to see greater support for teachers to understand workplace requirements and teach the skills needed by business, including project management.

This should help with the transition from school to workplace. It is important to note that having faced both disrupted education and a recession, [the Institute for Fiscal Studies found](#) that people leaving school and university this year and next will enter the workforce with less education and work experience than past cohorts, and with fewer job prospects.

### **Recommendation 1: The Department for Transport should publish a policy roadmap for addressing issues identified within its transport labour market and skills consultation**

We recommend the Department for Transport publishes a policy roadmap, supported by actions for government, following the feedback it received from the “Transport labour market and skills” consultation which concluded in May 2022.

This should set out clear next steps for how it will seek to address the STEM skills shortage within the transport industry.



## 2. Using apprenticeships

Apprenticeships, for both new members of staff and existing employees, are an effective way to grow talent and develop a motivated, skilled, and qualified workforce. [The UK government has found](#) that 86% of employers said apprenticeships helped them develop skills relevant to their organisation and 78% of employers believed apprenticeships helped them improve productivity.

There is no doubt vocational training could offer a route to fixing the UK's talent pipeline, however, the government must do more to understand the needs of the sector and work with industry to ensure the apprenticeship programme (and the apprenticeship levy) have a positive, long-lasting impact on increasing the digital skills provision in the UK.



### [Trainline creates tech apprenticeships for diverse young talent](#)

Trainline has launched an apprenticeship programme to support young professionals without university degrees to get their first job in tech. The programme, which is delivered in partnership with Multiverse, sees apprentices develop in-demand skills on programmes such as Data Analytics and Software Engineering. Across the UK, just [30% of roles within data and analytics are held by women](#), and only 3% are from a black, Caribbean and African ethnicity, so the recruitment process for Trainline's apprentices was [targeted towards candidates from backgrounds](#) that are underrepresented in tech spaces.

### Recommendation 2: The Apprenticeship Levy should be reformed to transform its impact

We recommend that the Treasury should increase the rate of transferable funds of the Apprenticeship Levy from 25% to 80% to allow high quality training to cascade down through supply chains. The lifetime of the funds should be increased from two to five years to increase; by combating overall issues with the apprenticeship levy, businesses would ultimately find it easier to use their funds within two years but a short to medium-term solution is required.

### 3. Retraining staff

Government needs to support retraining programmes and transition courses to support the future of transport, ensure people are not left behind, or perceive the wider digital economy does not have a place for their skills.

Those who find themselves newly unemployed or who want to “future-proof” themselves are often adults juggling full lives. Learning should not be seen as a luxury, but the traditional trappings of education such as full-time courses, high fees and learning in the constraints of a physical location, can make it seem that way.

#### Research for the Department for Education

identified that ‘time’ was the most cited barrier to engaging in learning, selected by 52% of respondents. Time is a significant investment and therefore it is crucial that investing in learning is shown as time well-spent.

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Continuous Professional Development (CPD) is a policy which is at the heart of the [Transport Planning Society](#) and all of the professional institutes that support transport planning as a profession. Across the industry there are a very wide range of training and development opportunities ranging for professional society evening meetings to a two-year full time Masters course in Transport Economics.

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techUK and [TechSkills](#) are leading the debate on how government and industry can work together to champion and expand the development and take up of short modular courses, including bootcamps. They have been proven to be a flexible, affordable, and effective route for learners to acquire productive digital skills that are valued by employers. Types of more modular learning can drive lifelong skill building and offer easier avenues for people transitioning between sectors.




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[Uber has established a partnership with the Open University](#) to provide free

flexible degree courses and access to free short courses for their drivers (or one of their family members), supporting flexible earning and learning around other commitments.

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Through the [Sir Michael Barber review](#), the government should review how it supports this kind of retraining and where additional funding can be used to encourage the wider use of bite-sized industry-led training designed to fit around the learner and their life. Remote learning also increases accessibility and with increasing availability of online and virtual digital skills training, organisations are able to build a more inclusive workforce with up-to-date digital skills.



### Capita is delivering learning ecosystems that create better outcomes

Choosing the right learning partner is key to ensuring that learning is always aligned with wider business outcomes, whilst building the right learning culture and behaviours associated with a learning organisation. Capita helps clients to develop a learning strategy that creates better outcomes for them and their customers, and to clearly understand the skills and capabilities they will need to stay competitive in the future. They then support them as they deliver against their strategy with a connected ecosystem of compelling content, technology and data. Every year, they enable more than 500,000 people to learn new skills and competencies and are responsible for ensuring value from more than £124m of training spend.

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### Softcat is creating new opportunities

Softcat's programme involves offering upskilling and reskilling apprenticeships to their full existing workforce. Launched in 2020, these apprenticeships offer the opportunity for their "Softcatters" to gain a broad range of management, technical and operational qualifications.

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#### 4. Overcoming the cost barrier

A key factor in making training accessible is the cost. Employer investment in training of existing employees has faced a substantial decline, particularly amongst the SME community.

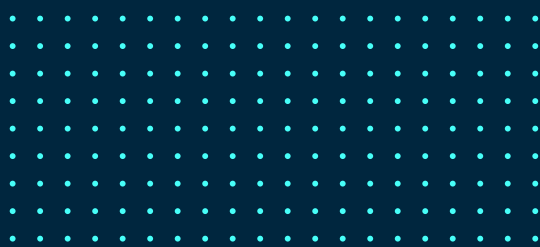
SMEs make up 99% of all UK businesses, employing [three-fifths of the UK's working population](#) and making around half the turnover in the UK private sector. With many businesses now running leaner operations because of the cost-of-living crisis, there is a real concern that investment in skills and training, which is already low, falls even further down the list of priorities.

[Studies show](#) that SMEs face a number of obstacles to investing in their workforce, including a lack of information about what training is available, access to economies of scale (smaller employers typically pay three times more per member of staff than larger firms for formal training) and accessing training that is flexible and specific to their needs.

Upfront costs are another obstacle to investing in learning (both from a time and financial perspective) as well as a feeling among employees and potential learners that it is not for them.

#### Recommendation 3: A Digital Skills & Productivity Tax Credit is created to drive business investment in training and productivity-enhancing technology

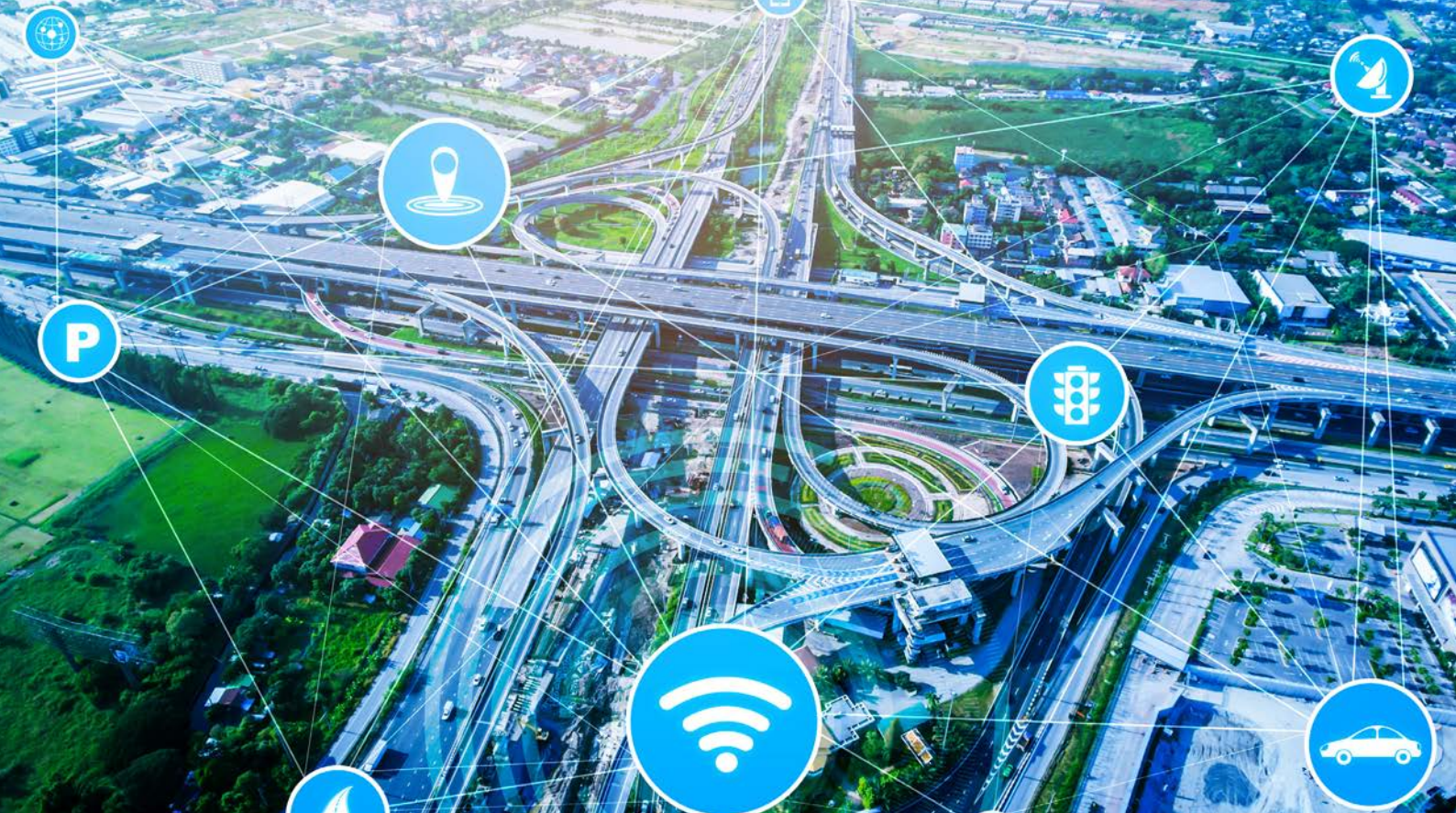
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# Chapter 4: Making the transport public sector more digitally enabled

Transport services rely on a blend of private sector operators and suppliers and public sector infrastructure owners. The skills challenge is present in both domains, and it is critical that this is considered within policies to alleviate current or future pressures.





As our roads become more digital, bodies such as National Highways will have increasing responsibilities to manage or interpret vast quantities of data generated on the strategic road network. The same principal applies with smaller, regional roads, with the responsibility falling on to local highways authorities or county councils. In addition, as new regulatory regimes are introduced to govern the use of new mobility such as self-driving vehicles and drones, we must ensure that regulators such as the DVSA and CAA have the necessary in-house skills to effectively oversee the deployment and use of these technologies.

The government's desire for the rail sector to undergo tech-led modernisation and open up its data and systems, will require a long-term strategy for attracting the people with the right skill set to the industry. A similar tale in present in the state institutions overseeing aviation and maritime.

## 1. Lack of digital skills in the public sector

The public sector shares all the challenges private sector businesses face.

The [\*\*National Audit Office \(NAO\)\*\*](#) says many in the sector believe government cannot hire enough people to deliver three-year transformation strategy. Its report said only 4% of civil servants are digital professionals, compared with an average of between 8% and 12% in other sectors and that a major skills shortage was affecting the whole of the UK – with departments ill-placed to compete. The number of government digital vacancies rose from 3,900 in April 2022 to 4,100 in October and that 37% of recruitment campaigns were unsuccessful.

This issue is exacerbated by the reality of public sector pay levels being less competitiveness than the private sector.



## 2. Cross-skilling civil servants

The [Civil Service Digital Skills Survey](#) reported that over 75% of civil servants would like to receive more digital skills training. techUK welcomes that this is a priority for government as outlined in its policy paper: [Transforming for a digital future: 2022 to 2025 roadmap for digital and data 2022 to 2025](#). This sets out the government's ambition to transform digital public services in the years ahead, outlining a specific mission to build digital skills at scale within departments and agencies.



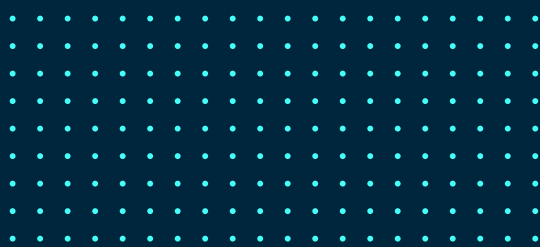
### [Softcat Apprenticeship Programme](#)

Softcat currently has four Public Sector Apprentices in London and Marlow, and are recruiting six more for South Coast, London, and Manchester. They offer technical training and opportunity to gain CompTIA qualifications, WorldSkills mindset masterclass workshop, and progression through Sales Development Programme offering internal sales skills training.

## Recommendation 4: Government should lead the creation of a new digital skills for transport taskforce

We recommend setting up a cross-modal digital skills taskforce with the backing and funding of the Department for Transport and Department for Education, this advisory body would be tasked in drawing on best practice, insights, and recommendations from across transport's fragmented landscape to develop actionable guidance for employers.

Representatives from major trade bodies, government, public sector agencies and local government would be empowered to develop transport specific resources for addressing the digital skills challenge and get ahead of issues.



# Chapter 5: Changing perceptions of the sector

Despite the scale of innovation in transport, the sector still faces an image problem. This causes young people, and especially women, to disregard a career in transport as an attractive career option.



For example, [All-Party Parliamentary Group for Women in Transport](#) has found that the UK has an “ingrained perception that transport is a ‘male’ profession”. This belief has affected women’s experiences and progression in transport and has contributed to low attraction and retention rates for women in the sector.

The sector is also poor at marketing the impact that a career in transport innovation can create. This includes roles helping to decarbonise the sector (transport still accounts for 27% of greenhouse gas emissions) or that can deliver inclusive economic growth through connecting communities.

This lack of awareness creates difficulties for companies looking to recruit younger talent especially who place a high value on delivering a wider social purpose through their work. Addressing this challenge is critically important

if the sector is to meet important policy milestones such as the rapid roll out of a nationwide [electric vehicle charging infrastructure or decarbonising UK aviation by 2050](#).

### **1. Increasing attractiveness of the sector**

The transport sector needs to promote a positive image of the sector that offers career opportunities across the UK. This may also include connecting people to opportunities.

Often there is a lack of awareness of the career opportunities that exist and how to get to them. As the transport sector continues to transform, there are new opportunities emerging across the country meaning everyone from new entrants to those looking for a career change have a range of options.

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**Industry 100 (i100) is the principal initiative from the National Cyber Security Council to facilitate close collaboration with the best and most diverse minds in UK industry**

As the national technical authority on cyber security, NCSC's ambition is to make the UK the safest place to live and do business online. i100 brings together public and private sector talent to challenge thinking, test innovative ideas and enable greater understanding of cyber security. Its aim is to bring volunteers from industry and academia into the NCSC on a part-time basis. Since 2017, they have seconded around 180 industry partners into teams across all areas of the organisation.

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## **2. Supporting diversity and inclusion**

To change the perception of the sector, techUK believes more work needs to be done on supporting diversity and inclusion. Stereotyping and unconscious biases are preventing more people from entering into the sector.

More training across the sector will help to

mitigate against unconscious bias in the workplace. Without making the transport sector a comfortable place to work for everyone, staff retention will be low, and it will be hard to recruit.

For employers, now is the time to rethink recruitment strategies. techUK has previously showcased how industry **can concentrate efforts on inclusive recruitment techniques.**

Diversity and inclusion and talent development are linked so to get new talent, businesses need to adopt more inclusive hiring practices including open recruitment – making sure recruitment practices are open and fair for all candidates, including those from different backgrounds – helping companies reach the widest possible pool of talent. It also means exploring the design of the advert and the looking at the process. Companies need to build partnerships with other channels who can bring diverse talent and candidates to the table and being mindful of the language and biases on job adverts.

Role models and diverse representation are integral to ensuring that people can see themselves reflected in the organisations that are seeking to recruit them. Diverse role models create a dialogue allowing other colleagues to understand others experiences in the workplace and the challenges they face.

### **Recommendation 5: Government should work with industry to create a Transport Digital Champion Advisory Council**

We recommend the Department for Transport partners with the industry to establish an advisory board of diverse and inspiring leaders who can act as visible champions for the sector.

Individuals appointed to this taskforce will act as a sounding board to the Department for Transport for how it can address recruitment issues. They will also be expected to leverage their appointment, becoming public champions for the careers in transport innovation.

## About techUK

techUK is a membership organisation that brings together people, companies and organisations to realise the positive outcomes of what digital technology can achieve. We collaborate across business, Government and stakeholders to fulfil the potential of technology to deliver a stronger society and more sustainable future. By providing expertise and insight, we support our members, partners and stakeholders as they prepare the UK for what comes next in a constantly changing world.



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