

ENNIS & CO

Skills **E**volution Roadmap

2025

Bridging the talent gap in automotive and mobility between today and the future



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Foreword

Who will make the dreams come true?

In 2020, the skills gap in the automotive industry worldwide was estimated to have cost £57 billion in lost revenue due to a shortage of 1.1 million skilled workers*. This is forecast to double by 2025 to 2.3 million skilled workers missing from the sector at a cost of £96 billion, and double again by 2030 to 4.3 million people, costing the automotive sector £207 billion.

Against this alarming backdrop, and despite the rush to develop and deliver new technology and associated business models, relatively little airtime has been given to the enormous challenge of finding the people who will make these dreams come true. A shrinking labour market, post-Brexit restrictions on free movement and intense competition for 'hot' skills from new mobility disruptors and other sectors fishing in the same talent pools has led to significant skills shortages across the industry. Further, the COVID-19 pandemic has radically and seemingly irrevocably altered people's attitudes to where and how they want to work.

As a global executive search company specialising in automotive and mobility, we experience the challenges of finding the right senior leadership talent for our clients. We see that competition for skills is rife at all levels of seniority in the industry – not just in the UK but across the world.

When we embarked on the Skills Evolution Roadmap 2025 research project, our intention was to draw on the insights and experiences of senior leaders to deliver a clear path out of the skills shortages being experienced across the automotive sector. Our interviews with 44 senior business leaders revealed the scale of the problem. The reality is that skills shortages are so deep and widespread across all areas of the sector that there is no magic answer to fix the problem in its entirety.

This white paper provides unique insight into the skills gap challenges, their consequences and the approaches being taken to address them as the transformation of our industry gathers pace. I would like to thank all those very busy people who contributed to this project with their frank and insightful views, and I hope you find this document valuable in building your talent strategies for the next three years and beyond.

Lynda Ennis
Founder & CEO, Ennis & Co

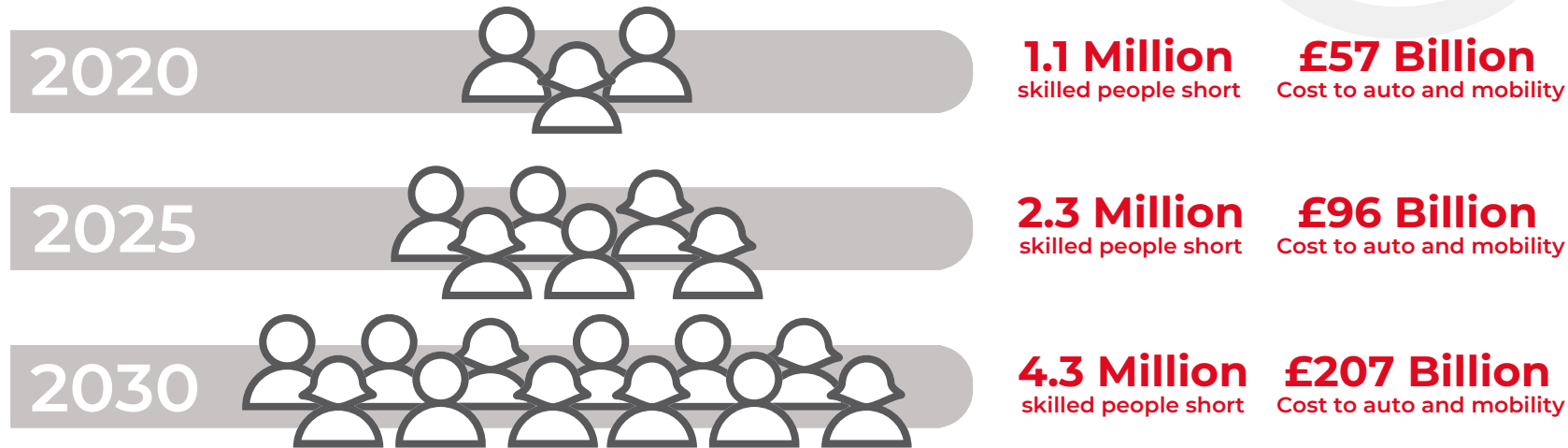
“By 2030, there will be a global skills shortage of **4.3 million** people, costing **£207 billion**.”

*Source: E&Co analysis based on PWC The Lost Workforce

Executive summary in 60 seconds

An at-a-glance guide to the background, key themes and recommendations of the **Skills Evolution Roadmap 2025** report.

The issue: The automotive skills gap is doubling every five years



Six key themes

- Using and commercialising data
- Optimising the customer experience
- Attracting and retaining technicians
- Evolving digital skills
- Engineers for emerging technologies
- Brand value through culture

Within this report

- Insight into the skills shortages and challenges from 40 leading executives
- Examples of actions being taken in the automotive and mobility sectors
- Learnings from other sectors, including construction, fast-moving consumer goods (FMCG), finance, telecoms and transport
- An action plan guide and resources available to your organisation

Why this needs action now

- COVID-19, the chip shortage and inflation have pushed this business critical issue down the priority list.
- A skills gap cannot be fixed quickly, and the consequences for organisations are far-reaching and ongoing.
- Without visibility of the skills needed and a plan to manage this there is a real threat to the delivery of current and future business plans.

Know your people

The strategy for attracting and retaining staff can be flexed to match people's needs by recognising that their specific requirements for remuneration and benefits vary at different stages of their career. We identify three key stages:

Career exploration

Younger people pay close attention to mission and values of an organisation beyond the remuneration package. The key is winning hearts and minds.

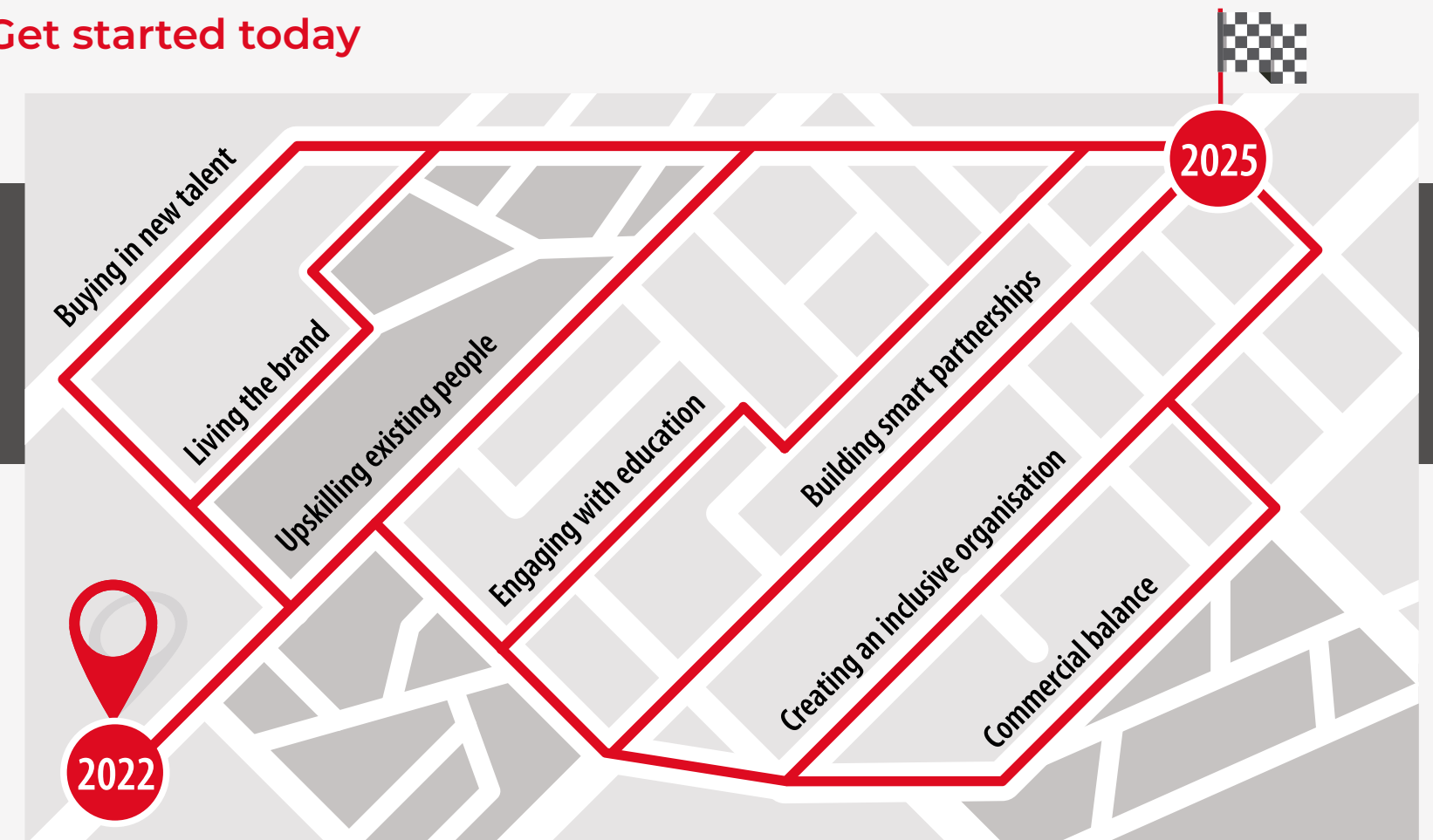
Established career

The bulk of the workforce; people choosing whether to stay and invest long term in an organisation and vice versa. This is the battleground for talent. It pays to invest.

Career choice

The generation of those who can choose to work (or not), but also others who need to beat the rising cost of living. Healthcare and enhanced pension could secure access to their experience and skills.

Get started today



Introduction

While skills shortages are being felt right across the automotive and mobility industry at all levels of seniority, the specific nature of those skills gaps varies according to where a business operates in relation to the vehicle life cycle. Retailers, for example, have different specific skill requirements to R&D companies.

To map the shortages and examine the range of talent strategies being adopted by businesses in a way that clarifies and reflects the

nuanced differences between organisations, we have structured our findings by dividing the industry into five segments of the life cycle.

We recognise that some businesses operate in more than one segment, while others operate somewhere in between them. The views of OEMs, for example, feature in three segments: R&D, manufacturing and the distribution of vehicles.



Based on in-depth interviews with 44 senior executives and directors, including CEOs, Vice Presidents and Presidents, we begin with an overview of the skills landscape in the automotive and mobility industry, presenting details of talent gaps in each of the five segments of the vehicle life cycle and providing insights into current and future talent needs.

We then focus on the current industry response to these challenges, looking at the five most acute areas of skills shortages across the sector before examining the way businesses are looking to leverage their culture and brand values as recruitment and retention tools. This section divides into six themes:

- Using and commercialising data
- Optimising the customer experience
- Attracting and retaining technicians
- Evolving digital skills
- Engineers for emerging technologies
- Brand value through culture

One aspect of the skills debate that appeared to unite the business leaders we interviewed is the importance of brand and organisational culture in recruiting and retaining talent. We look at how companies are competing for skills by focusing on their employer value proposition.

About the research

This research was conducted by Ennis & Co's in-house team, including our expert Associates.

We conducted in-depth, face-to-face Teams interviews with 44 senior executives and directors, including CEOs, Vice Presidents and Presidents, representing a range of different businesses across the entire spectrum of the automotive and mobility industry.

We asked about the key skills shortages in their organisations, the strategies being adopted to address the issue and how they anticipate skills requirements to alter and evolve between now and 2025.

Drawing on the information we have gathered and our own insights as a global executive search company specialising in automotive and mobility, we offer a roadmap to help business leaders navigate the highly challenging skills landscape.

To provide context to the problems being faced by the automotive and mobility industry, we also use public sources to examine the skills shortages being experienced in five other sectors in the UK, and discuss the key strategies being used to address the issue.



To provide context, we also analysed skills gaps and strategies across the following five sectors using publicly available sources:

- Financial
- Construction
- Telecommunications
- FMCG
- Transport

R&D companies, OEMs, suppliers

Skills needed:

- Artificial intelligence
- Data scientists – analysts and visualisers
- DevOps
- Digital skills – software developers, coders
- Engineers – chemical, design, electrical, electronic, software
- IT / tech specialists

Spotlight

As a global technology company delivering a range of sensors, software and services to the automotive industry, Bosch know exactly what skills are needed for the short term. Beyond that, they scout the international landscape to ensure they have the right capabilities for successful innovation.

“ We have a comprehensive re-skilling programme, strong collaborations with local and global universities, and we work closely with start-ups all over the world, bringing new skills, new thinking ”

Arun Srinivasan
Head of Bosch Mobility Solutions in the UK



Insights

- Talent shortages have led to intense competition for electrical, electronic, chemical, mechanical and software engineers, leading to spiralling wage inflation and increased head-hunting activity. One business reports 70 vacancies, principally in technical areas such as design engineering.
- Developments in technology have resulted in a marked shift in demand from traditional engineers to data scientists. The need for data scientists will further intensify over the next three years as in-vehicle connectivity brings significant increases in the volume of accessible data.
- Advanced digital skills are needed to drive digital transformation as new vehicles become more 'intelligent'.
- DevOps specialists will be increasingly in demand to manage the development of vehicles and systems to meet the accelerated pace of change in vehicle development.
- Business leaders underscore the pressing need to realign academic institutions in the UK to meet the needs of technology rather than continuing with ICE technology.
- Manufacturers need to bring 'user centricity' (i.e. the needs and desires of the customer) closer into engineering.
- Brexit has effectively ended the flow of talent from the EU due to the strict rules around sponsoring overseas candidates. Fewer international students coming through the UK higher education system will lead to further talent pipeline blockages over the next 2-3 years.
- Technologies such as hydrogen fuel cell propulsion are so new that the relevant technical skills simply do not exist in the market. Candidates with related transferrable skills, such as knowledge of battery technology, are being offered full training.
- R&D start-ups in the EV and battery sector are causing significant industry disruption by recruiting staff from legacy OEMs with the lure of equity incentives and the excitement of the start-up environment.

Today's skills landscape

Insights

- Historical shortages of engineering talent in the UK have been exacerbated by the plethora of start-ups offering equity incentives.
 - Despite their attractiveness to candidates, start-ups have their own challenges in recruiting people with the right soft skills, such as resilience, agility, critical thinking and problem-solving – skills that are not always evident in candidates more used to the consensus decision-making models of traditional automotive companies.
 - Brexit has added to the shortfall in engineers and software specialists. Many EU employees returned home during the pandemic and have not returned. Visa restrictions make hiring overseas staff hugely challenging.
 - OEMs and suppliers are facing significant shortages of skilled production staff. Previously, businesses could count on around 10 applications for every production role. Now, there are typically one or two applicants.
 - Although some OEMs and Tier 1 suppliers are forging partnerships with universities to access skills and influence course design, organisations have highlighted the need for academic institutions to align themselves with the needs of evolving technologies in power electronics, batteries, AI and software. There are concerns that universities are moving too slowly to deliver the skills the industry requires. Business leaders say a mindset of agility and entrepreneurialism is required both in the education system and government.
 - Businesses are also calling for significant government investment in training programmes to reskill engineers with traditional combustion engine skills to work with batteries, power electronics and fuel cells.
 - Such is the pace of acceleration towards electrification, there are concerns that the industry is storing up problems for the future by not addressing the skills that will be required in the next few years. One OEM leader pinpointed the need for training courses to deliver the required specialists in electrical software, vehicle cybersecurity, EV battery safety and high and low-voltage system design. Such skills will be essential to ensure
- EVs meet safety standards going forward but are likely to be in scarce supply.
- There is a huge global shortage of data scientists and analysts, with automotive companies facing fierce competition from other sectors. Despite the high levels of brand recognition among OEMs, an automotive manufacturer is not the first place that data scientists or analysts would think of joining.
 - Demand for data analysts and data scientists is only set to grow over the next few years as advances in vehicle connectivity bring huge increases in the volume of accessible data. There is a widely held view that OEMs are still coming to terms with how to leverage and commercialise this data in legally permissible ways.
 - As OEMs and their national sales companies move towards the agency model, they are finding themselves caught between two critical skills needs – people with traditional automotive capabilities who can navigate relationships with retail partners and those with commercial experience outside the industry who can bring fresh thinking, creativity and mental agility. Finding candidates who combine both skill sets to take on leadership positions is a huge challenge.
 - Problems in the supply chain have brought extra stress to procurement teams and led to increased attrition.

Manufacturing



Spotlight

To address the need for operations staff in an all-new factory, Lotus set up its own training academy and actively promoted it in the local community. Candidates participate in rigorous online and physical tests before being accepted.

“The success of this approach comes from a combination of providing opportunities for people to learn new skills and by leveraging awareness of Lotus as an innovative company that's growing. We have also seen strong engagement with former armed services personnel and are providing a rehabilitation pathway for offenders leaving prison.”

Matt Windle, Managing Director, Lotus Cars

OEMs & suppliers

Skills needed:

- Artificial intelligence
- Compliance – safety and regulatory
- Customer experience
- Cybersecurity
- Data scientists, analysts and visualisers
- Digital skills – software developers, coders
- E-commerce
- Engineers – chemical, design, electrical, electronic, software
- IT / tech specialists
- Procurement
- Sales and marketing
- Technicians and production staff



Today's skills landscape

Insights

- The growing importance of the online customer journey, which accelerated out of COVID-19 lockdown necessity and is now the cornerstone of today's business operations, has exposed gaps in digital expertise and e-commerce in terms of optimising the online experience and understanding what customers are thinking on their journey. It has also highlighted the need for technical know-how in the way customer data is captured and utilised for planning and marketing purposes, including the effective use of CRM systems. The imminent phasing-out of third-party cookies will also require new skills in first-party data management.
- National sales companies (NSCs) are moving towards an agency model at different speeds, but there is unanimity about the need, either today or in the next few years, for new digital and marketing skills as OEMs and their NSCs become direct-to-consumer businesses. Rather than the traditional project management approach to marketing of briefing an agency and then managing the delivery of a campaign, marketers will have to work in real time and be accountable for monthly sales targets.
- There is an appreciation that the majority of customers want a physical touchpoint before completing their order and that dealer networks will continue to be an integral part of an omnichannel sales process. NSCs are having to ensure there is infrastructure readiness in the retailers in terms of technical skills and product knowledge.
- The transition to electrification requires a thorough technical understanding of EVs throughout the NSC (and the dealer networks). Buying an EV is different to buying an ICE vehicle. Many customers seek personal interactions – either online, by phone or face to face in the dealerships – to fill gaps in their knowledge. Buying decisions are based not just on price but on factors such as sustainability, charging infrastructure, range anxiety and total cost of ownership. Product experts with advanced communications skills are needed to interface with customers, while pain points must be addressed through CRM.
- Selling EVs to fleets requires electrical experts and electrical engineers who understand grid power generation and infrastructure. It also requires policy and public affairs experts

- to advise on government subsidies and incentives.
- The move by some towards an agency model, coupled with the rapid transition to electrification and advances in digitisation, has increased the need for leaders who are comfortable with transformation and unpredictability. In an industry that is not traditionally fast moving compared with sectors such as tech, gaps have emerged in terms of leaders who are inquisitive, agile and entrepreneurial.
 - As digital innovation continues to advance, organisations will need to focus on the skills they need today while also preparing for the future in areas such as the metaverse, Web 3.0 and cryptocurrency.



Distribution of vehicles



OEMs, NSCs & their suppliers

Skills needed:

- Artificial intelligence
- Change leadership
- Customer experience and CRM
- Data scientists, analysts and visualisers
- Digital skills – software developers, coders
- E-commerce
- Sales and marketing

Spotlight

Nissan Motors GB has established four cross-functional working groups to identify what they think are the key areas of innovation in the future and the likely impact on skills requirements.

“We've basically drafted white papers on what we think are the key areas of innovation and we're looking at the skill sets we are going to need in areas such as NFT [Non-fungible tokens], the metaverse and Web 3.0.”

Andrew Humberstone, Vice President & Managing Director of Nissan Motors GB



Today's skills landscape

Finance, fleet, retail & their suppliers

Skills needed:

- Change leadership
- Compliance – safety and regulatory
- Customer experience and CRM
- Data scientists, analysts and visualisers
- Digital skills – software developers, coders
- E-commerce
- EV experts
- IT / tech specialists
- Mergers and acquisitions
- Sales and marketing
- Workshop technicians

Spotlight

A key challenge faced by sustainable fleet and leasing company Arval UK in attracting and retaining staff was that their brand was not widely recognised outside the fleet industry. The company responded by creating an inspiring employee brand, The Journey Makers, based on the narrative that they are the people behind millions of safe journeys, successful business trips and happy holidays.

“What people want, particularly following the onset of the pandemic, is to work for a company that has a great culture, is values driven and has a clear vision and a sustainable business model.”

Ailsa Firth, HR Director, Arval UK

Insights

- Retailers have experienced a shift in the way customers want to interact with them in the showroom, which has led to an evolution in skill requirements. The majority of customers have done their online research and know exactly what they want to buy before they enter the premises. They want to touch and feel the product to verify their choice, and they want an enjoyable customer experience. They no longer need to be 'sold' a product by a transactional sales executive but want to discuss their choice with a product expert.
- Customers are also seeking product information online and by phone as part of their buying journey, requiring call centre operatives to be product experts with customer service skills rather than the traditional college student working 3-4 hours a week.
- The transition to the agency model will further erode the need for traditional, transactional sales executives in showrooms. OEMs and retailers are, at different speeds, pursuing a new vision of the showroom as customer-centred retail experiences resembling an Apple Store staffed by product geniuses.
- With the increased adoption of EVs, showroom staff need to be highly knowledgeable about EV technology, as well as the lifestyle changes required when transitioning to electric

Access to mobility



mobility. They need soft skills such as empathy and the ability to communicate effectively to address customers' individual lifestyle needs.

- Similar skills around communication and empathy are being sought by subscription companies to allow consumers to interact directly with customer service advisers.
- Electrification has highlighted skills gaps in terms of knowledge of charging infrastructure and safety protocols in dealerships.
- With prices of new vehicles fixed by OEMs under the agency model and uniformity in the way EVs are powered, retailers will need to compete on brand and customer experience.
- Retailers have identified gaps in digital skills – at leadership level in terms of setting the digital vision, on the technical side for teams working directly with digital products and foundational skills for staff working in general areas in the business.
- New omnichannel and 'click and collect' ways of operating, combined with competition from online disruptors, have highlighted skills gaps in e-commerce and online marketing. Data analysts are also needed to inform digital marketing and CRM strategies.
- Data skills are set to evolve over the next few years. In-car connectivity and the growth of Mobility as a Service (MaaS) business models will generate ongoing data that will need to be analysed and managed, unlike the data generated by a one-off sales event.
- Car leasing and fleet management companies have identified shortages around IT system platform development and user experience of apps and portals, as well as the analysis and delivery of data. There are also gaps in EV knowledge that impact risk position.
- The rapid transformation taking place in the industry has highlighted the need for agile, entrepreneurial leaders who can manage change.
- Retailers are now recruiting sustainability experts to drive change throughout their organisations.
- The retail sector is on a journey of consolidation. People with skills in mergers and acquisitions will be needed to manage end-to-end mergers and acquisitions, joint ventures and disposals.



Today's skills landscape

Service & repair, suppliers

Skills needed:

- Data scientists, analysts & visualisers
- Digital skills – software developers, coders
- Sales and marketing
- Technicians – workshop and bodyshop
- Transport Logistics

Spotlight

Cox Automotive have set up a Global Employment Organisation (GEO) to address skill shortages – a corporate entity that allows the company to hire people regardless of what country they are located in.

“ We now have the capability to hire people in any market with the skills we need such as software engineers. We're going to be looking at setting up scrum teams in new markets where we believe we can get the talent. ”

Martin Forbes, President, Cox Automotive International

Insights

- An acute shortage of repair and service technicians is being felt by retailers, repair centres and suppliers, leading to galloping wage inflation. The shortfall has been heightened by Brexit and the so-called great resignation that followed the pandemic, when many people re-evaluated their working lives.
- Talent shortages mean technicians know their worth and are highly transactional in their job choices. Organisations have experienced high levels of attrition as technicians change companies with increasing frequency to secure higher wages and sign-on bonuses. The shortages extend to all workshop roles, including panel beaters, body paint sprayers and car valeters.
- Post-COVID-19 expectations of greater flexibility in working patterns are not feasible for workshop teams, adding to the number of technicians leaving the sector for a different career. Companies report that some technicians are staying in the

industry but moving to organisations such as the AA and Halfords, where they can work 'four days on, four days off' shift patterns. One retailer trialled a similar shift pattern but found it unworkable.

- The arrival of EVs requires new skills and safety protocols in the workshops, but many retailers report a reluctance among technicians over the age of 50 to upskill for EVs.
- There is a belief that transition from ICE vehicles to EVs could open technician work up to more women, with the focus on software and electronics rather than nuts and bolts.
- Suppliers are experiencing gaps right across the skills spectrum, from traditional jobs, such as warehouse operatives and HGV drivers, to evolving, high-skill roles, such as software engineers, developers and data analysts.
- Traditional parts suppliers cling to outmoded processes. One large-scale supplier still takes most of its orders by phone.

Vehicle use



- Suppliers of digital and technology services face fierce competition from sectors outside automotive for 'hot' skills in software and data. One supplier said their key competitors were companies such as Amazon and Google and the thousands of other tech companies around the world.
- Charging infrastructure providers are facing challenges finding software engineers outside London, where wages are extremely high. They are also struggling to find commercial staff with EV charging knowledge due to the newness and niche nature of the talent pool.
- IT systems suppliers specialising in solutions for retailers face difficulties recruiting candidates who combine the required technical skills with knowledge of the automotive industry.



Sector-wide skills gaps

The insights from business leaders featured in the previous pages reveal clear overlaps between the five stages of the vehicle life cycle and the short supply of certain skills across the sector.

The table opposite provides a consolidated view of the key skills required at each stage of the vehicle life cycle. For example, a shortage of data scientists and people with digital skills is common to each of the five stages, while the shortfall in technicians is most acute for manufacturing and retail.

This snapshot of the consolidated skills gaps illustrates the scale of the challenge facing the automotive and mobility, as businesses at each stage of vehicle development and use are effectively competing for the same people with the same skills. Equally, the commonalities and overlaps provide an opportunity to find common solutions to the problems.



Research & Development

Artificial intelligence

Data scientists, analysts, & visualisers

Digital skills (software developers, coders)

Engineers (design, electrical/electronic, chemical, software)

IT/Tech specialists

DevOps



Manufacturing

Artificial intelligence

Compliance (safety and regulatory)

Customer experience

Cybersecurity

Data scientists, analysts, & visualisers

Digital skills (software developers, coders)

E-commerce

Engineers (electrical/electronic, chemical, software)

IT/Tech specialists

Procurement

Sales & marketing

Technicians – production, operational, assembly



Distribution

Artificial intelligence

Customer experience & CRM

Data scientists & analysts

Digital skills (software developers, coders)

E-commerce

Sales & marketing

Change leadership



Access to mobility

Compliance (safety and regulatory)

Customer experience & CRM

Mergers & Acquisitions

Data scientists & analysts

Digital skills (software developers, coders)

E-commerce

IT/Tech specialists

EV experts

Sales & marketing

Workshop technicians

Change leadership



Vehicle use

Data scientists & analysts

Digital skills (software developers, coders)

Transport Logistics

Sales & marketing

Technicians – workshop, bodyshop

The industry response

In this section of the report, we examine how the automotive and mobility industry is responding to the skill gaps being experienced across the sector, highlighting the key strategies business leaders are adopting to address shortages within their organisations. These strategies can be used as a checklist of actions and ideas for businesses to consider when tackling similar issues.

We focus on the five key areas where skills shortages appear to be most acute before examining how businesses are looking to leverage their culture and brand values as recruitment and retention tools.

“ We used to be competing for **skills** with others in the automobility or mobility space. The reality is that you are now competing for talent with other industries that are facing the same digital disruptions or digitalisation pressures. ”

David Krajicek, CEO, JATO Dynamics

Theme 1: Using & commercialising data



- Automotive and mobility companies across the industry are adopting increasingly aggressive recruitment activities and raising starting salaries due to the intense competition for data scientists and analysts coupled with a worldwide skills shortage.
- Demand is being driven by the speed of digital transformation within the industry, from telematics through to online marketplaces for buying and selling vehicles. The explosion of accessible digital data is accelerating the search for data specialists to harvest and use data to drive efficiency in processes. Many companies are looking outside the sector to find the required skills.
- Remote working is now a key recruitment tool to address skill shortages by enabling organisations to fish for talent in multiple, scattered puddles internationally rather than an individual pool.
- Companies supplying data insights are working almost universally remotely in the post-COVID-19 era. Home working in the data industry was widespread even before the pandemic,

and there is a strong belief that remote working arrangements are more productive than the traditional model. However, building community and employee loyalty is more challenging in a remote working environment and requires new management and communication skills.

- Organisations with key data skills requirements are looking increasingly at partnerships with educational institutions to identify talent pools that can be funnelled into their business, with clearly defined career paths.
- Organisations with global footprints are looking to offshore their data requirements by creating data hubs in overseas markets, such as India, Singapore and Eastern Europe, though these regions are experiencing wage inflation as demand for data skills rises globally.





- Retailers have recognised the need for different types of skills for public-facing showroom staff, with well-informed customers no longer wanting to be 'sold' a product. Businesses are looking to reskill existing sales executives to become product experts where possible, though there is a recognition that this requires a different, less transactional skill set. Some are casting their net for showroom staff outside automotive to sectors that focus on customer service, particularly luxury retail and hospitality.
- For customers seeking product information through online or phone chat as part of their buying journey, a new type of call centre operative is needed – someone who is a product expert with effective customer service skills rather than the traditional college student working 3–4 hours a week. One retailer is targeting retail and hospitality to find the required skills.
- Organisations are taking steps to upskill staff in terms of EV knowledge. One retailer has placed EV experts in dealerships to cascade knowledge. Another retailer plans to roll out a training programme across the business to boost EV literacy at all levels while offering a salary sacrifice scheme to encourage EV take-up.
- With the increased adoption of EVs, showroom staff need to be highly knowledgeable not just about EV technology but also the lifestyle changes required when transitioning to electric mobility. Businesses are looking to recruit customer-facing staff with soft skills, such as empathy and the ability to communicate

effectively, to understand and satisfy customers' individual lifestyle needs.

- Faced with competition from disruptors, retailers are actively recruiting e-commerce expertise from outside automotive, targeting online retail platforms, such as John Lewis and Argos.
- As competition for graduate-level talent intensifies in the area of data and digital understanding, some businesses are looking to recruit Year 2 students – a year before they graduate.
- Companies are having to pay more for the best talent, particularly for 'hot' skills, such as digital, e-commerce and data expertise, due to intense competition from other sectors facing similar digital disruption.
- The competition for software development skills to enhance the online customer experience has led one retailer with a global footprint to build digital centres in the Philippines and Colombia to access local talent.
- Battery charging providers are generally recruiting sales and marketing staff from outside the industry and upskilling them in terms of their charging knowledge through their own domain expertise. The industry is moving so fast that even candidates who have worked on the commercial side of EV charging can bring 'old thinking'.

“ We are in the middle of **disruption** from many different angles, and as the incumbent we have nothing to gain and everything to lose, unless you start thinking differently. That comes through building a closer, more **emotional relationship** with the consumer. ”

Agustin Martin, President & Managing Director and Head of UK Operations, Toyota GB

Theme 3: Attracting and retaining technicians

“I hear from our retailers that as we move to electric vehicles, they're finding that female apprentices have a real **aptitude** in the workshops. It's more software driven and less driven by traditional hammers and spanners. It's a chance to attract different people to build **diversity and inclusivity**.”

Alison Jones, Senior Vice President of Circular Economy, Stellantis

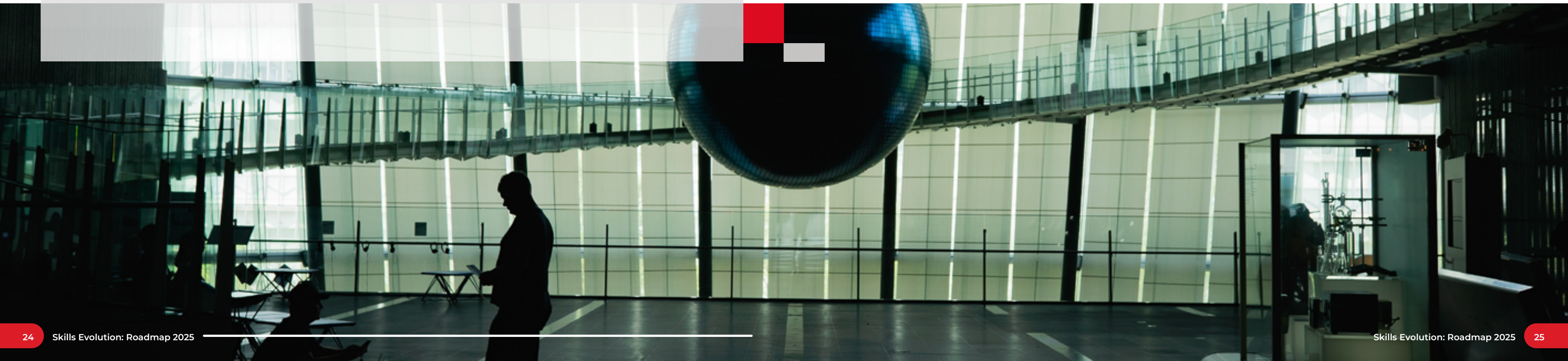
The industry response



- The acute shortage of repair and service technicians has led to huge wage inflation, with sign-on bonuses now commonplace. To halt the exodus of technicians to higher-paying competitors and sectors outside automotive, one retailer carried out a wholesale review of workshop salaries, resulting in a multi-million-pound increase to pay plans, including retention/loyalty bonuses and more structured career paths. Other retailers have opted out of the salary war, focusing on how technician jobs are packaged and generating their own talent pipelines.
- Existing technicians are being offered upskilling programmes to work on EVs. To counter the reluctance among some older technicians to retrain, one retailer is offering a premium on top of basic wages for EV-skilled technicians.
- There is a major push among retailers to grow their own talent when it comes to the technician shortage, with many increasing their intake of apprentices significantly. One is recruiting as many as 200 apprentices per year.
- Organisations are becoming more targeted in recruiting apprentices, forming relationships with local schools and sponsoring relevant college courses. For graduate-level

jobs, companies are partnering with universities to sponsor candidates on degree apprenticeships or provide career paths for traditional graduates.

- There is a widespread belief that the industry could sell itself better to potential apprentices and make talent pools more aware that being a modern-day technician is about software skills, technology and electronics rather than getting your hands dirty. Representative bodies need to create positive messages around how being a technician is a great career where you can earn excellent money. Allied to this, there are opportunities to increase the number of female apprentices. Types of candidates are already changing from the typical apprentice of 20 years ago, with some organisations requiring a minimum C Grade in GCSE maths and English.
- To address the technician shortage, one retail group is diversifying into a new business model around its used car operation to enable it to use generic rather than OEM-trained technicians.



- Digital expertise has been a 'hot' skill requirement for a number of years due to the digital disruption taking place across the entire automotive and mobility sector. Skills are needed at all levels – the leaders who are navigating a path in today's digital world, experts in areas such as artificial intelligence, IT systems, vehicle connectivity, e-commerce and marketing, and those requiring basic IT literacy to operate digital systems. External recruitment, outsourcing and internal training to upskill staff are being used in various combinations across the industry to plug the gaps.
- The demand for digital talent is driving businesses to offer higher salaries, as well as increased bonuses and equity grants to retain employees. IT systems suppliers are benchmarking salary levels above OEMs as the competition for talent in software development intensifies.
- Suppliers of IT services and solutions are actively recruiting from tech companies such as Amazon and Google but are also seeing employees heading in the opposite direction.
- Businesses are looking increasingly at offshoring digital capability to address skills shortage. One supplier is operating a software development hub in India to overcome talent shortages and is looking to access skills in eastern Europe and Turkey.
- As OEMs position themselves to become technology companies rather than traditional manufacturers, they are also actively looking outside the industry for their required skills in areas such as IT, AI, cybersecurity and software.
- Businesses are increasing the scale of their talent pipeline through apprenticeships/degree apprenticeships to address digital skills shortages.
- NSCs are actively looking outside the automotive sector for the e-commerce skills they need to sell directly to consumers as the agency model moves ever closer. One business estimated that 30 to 40% of its e-commerce team would be recruited from outside. They said the key was to get the right balance of skills from inside and outside automotive rather than a total overhaul

“ I do think the industry is at such a **critical** juncture. I think the skill set difference is profound. Automotive companies are going to be faced with trying to strike the balance of traditional automotive capabilities with outside fresh perspective. ”

Andy Benka, Vice President and Chief of Staff, Harley-Davidson



- because they still needed traditional competencies in areas such as stocks, pricing, volume optimisation and planning.
- Faced with shortages in advanced IT skills, many businesses are outsourcing to solve short-term needs.
- Post-COVID-19 expectations of flexible working and the resulting implications for staff retention have led to a major shift in the way digital skills are being deployed, with organisations across the sector formalising hybrid working contracts to allow staff to work remotely. Organisations that reject the hybrid model are experiencing increased attrition.
- A number of businesses are devoting resources to digital horizon planning to ensure they have the right skills to take advantage of emerging evolving technologies, such as the metaverse, Web 3.0 and cryptocurrency.

Theme 5: Engineers for emerging technologies



The industry response



- OEMs and suppliers are increasingly working in partnership with universities to collaborate on research and innovation and access talent pipelines. Businesses are looking to sponsor university or college courses to ensure modules meet industry needs.
- The Advanced Propulsion Centre is bringing various academic institutions together to check whether their research is right for industry and support the transfer of existing engineering and manufacturing skills from ICE to EV technology.
- A National Electrification Skills Framework and Forum has been established by the University of Warwick, Catapult and the Faraday Institution to identify the key skills needed to make the UK a world leader in battery technology, power electronics, motors and drives, and clean energy creation. The forum will bring together employers and training providers to design and deliver the required training across the country. Questions remain as to whether the forum will move quickly enough to satisfy pressing demands for electrification skills.
- CENEX has developed a Future Learning platform, which provides online courses to get people with an interest in emerging technology up to speed and transfer their skills. Subjects include low-carbon vehicle technologies, shared mobility and vehicle-to-grid.
- Unable to access ready-made overseas talent, OEMs are ramping up their graduate trainee and degree apprenticeship schemes and carrying out community outreach activities to promote STEM subject choices and engineering careers in schools.
- One business has established a national competition among students at 15 UK universities to design the smart and sustainable transports systems of the future. This recently led to 22 students and graduates being offered early career opportunities.
- Some OEMs are working with R&D partners to de-risk against skills gaps.
- Changing post-COVID-19 attitudes to work-life balance means OEMs based outside the engineering heartlands in the Midlands are having to pay premiums to attract talent or establish new Midlands-based engineering centres to access local skills.
- Businesses are being forced to compete on salary to secure the best engineering talent. This has led to significant wage inflation, with some companies reportedly raising starting salaries by 50%.
- Other businesses have refused to be drawn into the wage war to protect their cost base, opting instead to manage existing resource to fill gaps. Stock awards with three-year vesting periods are gaining traction as a means of retaining staff.

“We’ve been more active in bringing in **graduate engineers** than we have been for probably five years. Given changes in education in areas like computer science and artificial intelligence, that brings in a fresh set of learning – more creativity and the latest skills.”

Darren Goddard, Executive Director Programmes, McLaren Automotive

Theme 6: Brand value through culture

The business leaders interviewed in this report unanimously agree on the increasing importance of the employer value proposition in attracting and retaining staff.

Many business leaders told us that creating an open, values-driven culture and a positive brand experience for employees was often more effective as a talent strategy than competing on salary and benefits.

Younger candidates, in particular, are perceived as requiring 'immediate gratification', which means creating a culture that is innovative, exciting and capable of providing the stimulation and gratification they are seeking.

Diversity and inclusion initiatives, rich employee engagement, clearly defined career paths and flexible working patterns are among the strategies being used by companies to build positive working environments.

With this in mind, the arrival of electrification and sustainable mobility solutions represents an unprecedented opportunity for the industry to attract external candidates and build a highly motivated and committed workforce.

Many organisations reported that candidates were increasingly drawn to the idea of working in a sector that is delivering sustainability through decarbonisation. This trend has been accentuated by the pandemic, which has prompted people to re-evaluate their lives and prioritise making a positive difference over remuneration. Interest in the sector is expected to increase further as EV adoption rises over the next few years.

Some businesses are actively using their marketing teams to 'sell' their sustainability credentials to candidates – particularly younger workers. Organisations are also paying more attention to the language they use when recruiting externally – both from a diversity and inclusion perspective and in the way they articulate their brand. Rather than traditional 'automotive' language, they are choosing words that resonate with younger audiences, such as 'mobility' and 'technology'.

The industry response



Flexible working

Post-pandemic, the work-life balance expectations of employees and candidates has meant the option to work remotely or flexibly has become a core part of the employer value proposition.

Businesses across the sector have formalised new remote and hybrid working patterns for people whose physical presence is not essential. Some organisations, particularly data companies and MaaS start-ups, are working almost entirely remotely.

Business leaders believe flexible working is here to stay and, without it, recruitment and retention would be challenging. Companies that have rejected remote working have experienced increased levels of attrition.

The flexible approach has enabled organisations to source talent from wider geographies and access different types of candidates, such as people with caring responsibilities, thereby advancing their diversity and inclusion agendas. The downsizing of office space has also delivered substantial cost savings.

A major hurdle to overcome with flexible working is the loss of face-to-face collaboration, spontaneity and creativity. It has also brought new challenges in building a positive organisational culture and a sense of camaraderie, leading to new skills requirements for managing people remotely and delivering effective internal communications.

“People want to join us because they are excited by our purpose. They tell us they are attracted to us because we are **driving change** in the automotive and energy sector by trying to decarbonise the market.”

Luisa Ferres Meyer, Chief People Officer, First Hydrogen



Looking beyond automotive

The skills shortages being felt across the automotive and mobility industry are being replicated across other sectors in the UK and around the world as businesses transition to new digital and automation technologies and navigate challenges created by the COVID-19 pandemic, highlighting the urgent need for investment in reskilling and upskilling.

Across the UK, more than 50% of businesses are experiencing skills gaps. According to the Open University Business Barometer, the impact of poor training investment and the subsequent skills shortage has cost companies in the UK a collective £6.6 billion in training, recruitment, temporary hires and salary uplifts to attract and retain staff.

Using public sources, we have highlighted some of the key skills issues being faced by five different verticals and the actions being taken to address the problem.

The global picture

The global shortage of skilled workers across all sectors* is doubling every five years and is forecast to be 85.2 million workers by 2030, which is a real cost of £6.9 trillion to the bottom line due to lost revenue. Of this cross-sector figure, the global shortage for the automotive industry is forecast to be 4.3 million workers, at a cost of £207 billion to the industry.

This problem has been building over the course of several years, but without visibility and focus, the challenge has not been addressed.

The economic and social consequences of COVID-19, combined with the conflict in Ukraine and the cost-of-living crisis, accelerating the need for organisations to become more efficient by leveraging technology.

When combined with a passive candidate market for new talent and people's changing expectations of being able to work from home, it should come as little surprise that addressing the skills gap issue has risen to the top of the management agenda.

	2020	2025	2030
Global skills shortage (people)	23.2 million	46.5 million	85.2 million
Cost	£1.9 trillion	£3.8 trillion	£6.9 trillion
Automotive skills shortage (global)	1.1 million	2.3 million	4.3 million
Cost	£57 billion	£96 billion	£207 billion

*Source: E&Co analysis based on PWC The Lost Workforce

Financial – banking

Of the five UK sectors we have examined, the banking sector has emerged from the pandemic the strongest, with the adoption of virtual communication platforms having enabled remote 'business as usual' activity.

Some 78% of banking employees were able to executive their daily workload remotely during the pandemic, and this has led to the permanent formalisation of remote or hybrid working patterns across the sector.

Despite this, a survey of industry employees conducted by the UK Financial Services Skills Commission identified significant gaps that necessitate the adoption of reskilling and upskilling programmes. The survey found that:

- 57% of respondents said they lacked specific technical skills
- 30% requested more digital and technical training
- 28% of managers needed extra skills to support the mental and physical health wellbeing of their teams

Actions being taken:

1. Training needs being actively assessed
2. Upskilling of current workforce
3. Recruitment of new talent
4. Roll-out of apprenticeship programmes
5. Outsourcing digital requirements

Spotlight

HSBC have taken learnings from the COVID-19 crisis when they were unable to have people physically in offices, to create an 'agile and liquid' workforce. People who previously would have been 'anchored' to their own area or team now use a technology platform that ensures there is always access to a pool of knowledge, enabling employees to have flexibility as to when and where they work.



Looking beyond automotive

Construction

The construction industry is experiencing a significant skills shortage problem, despite an ambitious government target of 300k new homes per annum. It is estimated that the industry will require an additional 217k recruits within the next five years. The shortage is blamed on a number of factors:

- An ageing skilled workforce
- Many EU workers went back to their homeland during the pandemic and have not returned
- Younger employees are seeking more attractive industries and types of work
- Construction opportunities and locations are nationwide and not always accessible.

In 2020, there was a 200% increase in the number of construction vacancies, while a year-on-year 54% decline in applications has been attributed to inadequate skills among applicants and the lack of training available for upskilling.

The industry has paid a heavy price taking on the additional cost of training and paying higher salaries to meet the demands of

committed contracts. In some cases, poor skill sets have caused projects to over-run the contracted timeframe, triggering financial penalties.

The industry recognises it must make itself more attractive to young talent and market itself actively as an attractive career, including improving its gender balance. There is a belief that advances in technology and wider adoption of software solutions will appeal to younger people.

Actions being taken:

1. Promoting the construction industry through professional bodies as a credible career path when exiting education
2. Greater focus on equality and diversity
3. Investing in upskilling existing employees, including multi-skilling
4. A recent survey revealed that 48% of companies in the sector are investing heavily in apprenticeship programmes
5. Creating greater awareness of careers in the industry that focus on digitisation and automation

Telecommunications

The telecoms sector is a leader in the application of automation and artificial intelligence technology to deliver services but remains reliant on the skill of people to provide the customer service experience. It faces the twin challenges of poor image for call-centre employment and competition with other sectors for digital and management skills.

- Passive candidate market: roles that would once attract 10-12 applications now typically attract 1-2.
- Perceived as attractive on the engineering side but struggles to recruit HR, project managers and quantity surveyors.
- Diversity and inclusion issues: an average of 14% of women in lower-paid roles and 25% in more senior positions.

Global initiatives, such as the TM Forum, bring together 10 of the world's top 10 network and communications providers to fund projects attracting digital talent. There is also a focus on diversity and inclusion, which is being extended to create collaborative partnerships between internal functions and customer-facing teams. Reskilling programmes are now being scaled up to keep existing employees ahead of new technology developments.

Actions being taken:

1. Upskilling the existing workforce
2. Active external recruitment to find transferrable skills
3. Addressing business concerns regarding diversity and inclusion
4. Creating more apprenticeship opportunities
5. Actively promoting government funding for training through its Join the Skills Revolution campaign

Spotlight

BT are exploiting their leveraging capabilities in artificial intelligence (AI) and augmented reality (AR) to address skills gaps through remote coaching, in real-time. Through their Onsite AR platform, they can provide access to remote experts who can diagnose, inspect and troubleshoot assets in the field.

Spotlight

Balfour Beatty have joined 'The 5% Club' – a national initiative for organisations committed to ensuring 5% of their employees are in some form of professional development, be it apprenticeships, sponsored students or graduate programmes.

Looking beyond automotive

Fast-moving consumer goods

The FMCG sector, which absorbs around 50% of the average household budget in the UK, has been impacted significantly by Brexit. The industry is having to adjust to:

- Supply chain problems
- Increased shipping and transportation costs
- Delays in shipment of goods from ports due to changes in legislation and paperwork requirements
- Skills shortages resulting from increased labour demands in logistics and warehousing

The industry as a whole is traditionally labour intensive and is relatively late to the party in adopting new technologies. As a result, the sector is experiencing skill shortages in digitalisation and automation, specifically in e-commerce and automated logistics management and controls to ensure just-in-time delivery and fulfilment.

An ageing demographic across the sector is linked to a reluctance to learn new skills.

Actions being taken:

1. Upskilling staff (e.g. from warehouse operative to HGV driver)
2. Recruitment aimed at a younger demographic
3. Engaging actively with government upskilling and reskilling programmes
4. Actively recruiting for people with technical skills to manage supply chain (raw materials to finished goods)



Spotlight

Warburtons the bakers have developed their own Success Factors – the elements that define the expectations for their people. Based around four key aspects, they are publicly available and provided as a structure to motivate and guide employees.

Transport

The transport sector is facing significant challenges, many of them demographic, that are contributing to an industry-wide skills shortage (with a knock-on effect on the FMCG sector).

Problems include:

- The average driver age in the UK logistics sector is 57
- The average age of a logistics transport manager is 45
- 80,000 EU nationals have not returned to the UK or the sector since the pandemic and Brexit
- The collapse of the travel industry during the pandemic necessitated mass redundancies, particularly in aviation. Many of those affected have now left the industry

The biggest challenge for executive leaders in the sector is the lack of knowledge around digitalisation and automation. The digital maturity score of staff working in the transport sector as a whole is 62. However, when logistics is looked at in isolation, the score is just 32, highlighting the need to recruit a younger demographic with digital knowledge and expertise.

Actions being taken:

1. Active recruitment campaigns for qualified driver vacancies
2. Targeting staff ex-military service personnel with HGV training
3. Large-scale apprenticeship programmes across a range of skills, including digital and automation
4. Creating clearly defined career pathways to attract talent
5. Raising salaries to retain existing staff and offering sign-on bonuses and other financial incentives to attract job applicants



Spotlight

Wincanton Logistics have developed an apprenticeship programme to build a pathway for talent development through the organisation. Seven hundred apprentices have joined the organisation, with a retention rate of 77%.

The Skills Roadmap to 2025

It would be reasonable to expect this section of the white paper to contain some sort of diagram with clear steps to tackle the skills gap, but there isn't a simple solution that fits conveniently into a chart.

Gaps in skills are deep and widespread across all sectors and levels of seniority, resulting from the absence of strategic planning and action during past decades, and they cannot be bridged with a quick-fix. However, by understanding the reasons and solutions from within and beyond the sector, effective action can be prioritised and undertaken.

A key observation is that CEOs must recognise the size of the skills challenge, the risk it poses to delivery of the business objectives and ensure it is given the appropriate strategic priority, which cannot simply be to pass the challenge to HR with a set of KPIs.

Another critical element is to be clear about organisational identity. Some automotive companies now want to be seen as mobility businesses, others as technology companies, but changing the wording of the vision has little meaning in itself to people in the organisation. Fluidity of purpose without solid communication and evidence of delivery creates uncertainty, which is disruptive to both existing and potential employees, neither group being sure what the future will be for them.

Putting these two aspects together, businesses must appreciate that we are in an employee-driven market and that people with sought-after skills are aware of their value. The consequence is that, however unpalatable this may be to some management mantras, a clear and empathetic understanding of the perspective of employees and job candidates must be at the heart of any effective talent strategy.

Drawing together the learnings from interviews with 44 senior executives and observations from across five other key sectors, we believe that the key to addressing the skills gap is to break it down into two separate areas: organisation and people. In this section, we show how they interlink to create a framework that will enable organisations of any scale to develop their own bespoke skills roadmap in which business objectives and employee thinking align.



Organisation



Ownership

The skills shortage is a business-critical issue that senior leaders must own while driving the solution across the organisation. The consequences of the skills gaps go beyond the inconvenience of staff shortages or the adjustment in timing of a project. It has reached the stage where the skills shortage is preventing the delivery of business plans and needs to be managed as a major project. It needs to live somewhere with an owner that has a voice at the top table.

Plan

A structured approach is crucial, involving consultation across all functions of the business to define realistic objectives and the resources required to deliver them.

Transparency is essential to understand the scale and risk, including clarity around skills gaps that have previously been accommodated through contractors or short-term solutions. This will provide a full picture of the challenge and the resources needed to enable activities to be prioritised.

A report of both the number and type of skills missing should be added to the risk register as it presents a significant threat to the delivery of the business strategy.

Delivery

This will involve a combination of seven key approaches, according to the requirements of the Plan:

1. Engaging with education – to maintain a pipeline of skills needed and build the pathway for people with relevant skills.
2. Upskilling existing people – which will require a significant commitment in terms of time, money and focus to be effective.
3. Buying in new talent – what are you prepared to pay to solve the problem and over what period of time?
4. Creating an inclusive organisation – leveraging skills from the broad spectrum of people in the community.
5. Building smart partnerships – connect with others in your supply chain and network facing the same challenge so you can solve it together.
6. Living the brand – sell the lifestyle experience of working in the company by evidencing: values, commitment to sustainability, smart mobility options and flexibility, showing that the organisation respects the value of time (to both the individual and the organisation).

Commercial balance – recognising and accepting that the level of investment in skills may be beyond that which the business would otherwise accept.



People



In the same way organisations consider customers in segments to address their needs, it is equally important to consider the needs of people when looking at skills gaps. Based on the conversations with senior executives interviewed in this report, combined with our own experience and analysis across other sectors, we consider there are three primary segments, two of which are being addressed to some extent, while the third appears largely untapped:

Career exploration

Our research shows that there is significant engagement activity taking place with schools and universities to create talent pipelines through apprenticeships and graduate trainee schemes. It is crucial, however, that businesses understand the mindset of employees who are exploring career options to attract them to the business and retain them beyond their training period.

This involves the way the organisation's brand is positioned in the market and how that translates into workplace culture. The traditional milk-round needs to be re-thought, and there must be an appreciation that the questions younger people are asking today have little in common with the issues employers have traditionally expected. Mission and values often trump pay for younger employees.

Established career

This is the majority (by number) of existing and potential employees – the people who are considering whether to stay with their current organisation because they see personal development and opportunities to grow in a progressive culture or who can move relatively easily to another organisation. For the employer, it is a balance of investment and commitment to retain and motivate people with valuable skills, beyond levels that they may have traditionally offered, or risk losing key people.

This group represents the key battleground for retaining and recruiting staff, but strategies currently being deployed by businesses lean heavily towards the transactional (higher wages, bonuses, equity grants etc).

In a period of technological transformation, employee engagement is key to understanding the aspirations of people in the middle part of their careers – their level of job satisfaction and appetite for upskilling and reskilling.

Career choice

While some areas of diversity are being actively pursued, including gender and, to some extent, race and disability, the potential of engaging with more mature workers is regularly overlooked. People at this stage of their careers can often choose whether to work or not but offer the advantages of experience, maturity and commitment, particularly in an environment that embraces part-time and flexible working.

The cost-of-living crisis may persuade some older employees to postpone retirement plans, and these employees could play a significant role in plugging skills gaps to help meet business objectives. It is somewhat surprising that this has been the least discussed area of opportunity with the current environment and across other areas of inclusion.

Roadmap to 2025: Pick your route

The following tables bring together organisational needs and employee perspectives, incorporating insights from the senior leaders who participated in this research project and our 12 years of experience as executive search experts operating in the automotive and mobility sector.

For each of the three segments, we have mapped the priority for each of the seven key approaches, along with relevant insights.

Career exploration						
Engaging with education	Upskilling existing people	Buying in new talent	Creating an inclusive organisation	Building smart partnerships	Living the brand	Commercial balance
<p>Engage with schools, colleges and universities to demonstrate the relevance of your organisation.</p> <p>Ensure courses are fit for purpose to create a skilled talent pipeline.</p> <p>Develop new or expanded apprenticeship and graduate trainee schemes.</p>	<p>Engage with employees to understand mindset/aspirations.</p> <p>Needs early, and regular, intervention to present career progression opportunities and create loyalty.</p>	<p>Find a balance between existing employees and new people.</p> <p>Some organisations are hiring graduates in their second year of university.</p>	<p>Create a positive employer value proposition with a culture aligned with values and clearly visible to all.</p> <p>Deliver talent pipelines that embrace diversity in all its forms and in all areas.</p>	<p>Collaborate cross-sector, possibly through representative bodies.</p>	<p>Be clear that vision, mission and values match the expectations of the future talent market.</p> <p>Deliver effective, real-time employee engagement programmes.</p> <p>Enable remote or hybrid working patterns where possible to enhance diversity and broaden geographical reach of workforce.</p>	<p>Create clear career development pathways, and offer flexible working options.</p> <p>Be prepared to invest and sustain the investment to bridge the skills gap.</p>

Low Priority Medium Priority High Priority

Established career

Engaging with education	Upskilling existing people	Buying in new talent	Creating an inclusive organisation	Building smart partnerships	Living the brand	Commercial balance
Ongoing interaction, creating opportunities to retain existing employees and leveraging alumni networks to attract new people.	Engage with employees to understand mindset/aspirations. Needs early and regular intervention to present career progression opportunities and create loyalty.	Decide remuneration framework for new and existing staff (salaries, bonuses, equity, other benefits). Recognise the potential need to pay more to new people for the same skills that are in the organisation today, while assessing the potential impact on the existing team.	Create a positive employee value proposition where culture aligns with values. Proactive recruitment activity in defined talent pools where there are skills deficits. Deliver prominent and market driven diversity and inclusion initiatives to build a positive workplace culture.	Collaborate cross-sector, possibly through representative bodies. Accessing skills pools within partners can be mutually beneficial. Allowing them to engage with your surplus today can pay back tomorrow. Engage with employees to understand mindset/aspirations. Enable remote or hybrid working patterns where possible to enhance diversity and broaden the geographical reach of the workforce	Be clear and honest about what kind of business you are (e.g. automotive, mobility, technology, software). Any change in this area needs to be clearly thought through and communicated. Engage with employees to understand mindset/aspirations. Enable remote or hybrid working patterns where possible to enhance diversity and broaden the geographical reach of the workforce	This is the heaviest investment phase, requiring sustained commitment to retain core skills and attract new talent. Prioritise projects, define realistic objectives and assess resource requirements. Create clear career development pathways.

Career choice

Engaging with education	Upskilling existing people	Buying in new talent	Creating an inclusive organisation	Building smart partnerships	Living the brand	Commercial balance
Mature employees are good ambassadors for the brand and also have alumni links, providing access to networks.	Define what skill requirements can be resourced from a more mature group. Develop specific package of incentives to retain older workers (e.g. pay uplift for reskilling, health insurance, pension). Identify reskilling/upskilling requirements for mature workers to assist with the skills gap.	Create value propositions, including flexible working options, (e.g. health insurance), which may be more attractive than salary. Consider options for part-time working/job shares and hiring from other sectors.	Engage with employees from mature groups to discuss their future plans and reskilling/upskilling options. Deliver prominent diversity and inclusion initiatives that build a positive workplace culture that retains skills and organisational knowledge.	Collaborate cross-sector, possibly through representative bodies. The mature networks of people in this group can provide access to new and extensive talent pools.	It is essential to demonstrate that the brand embraces this group, with valid reasons for them to engage and feel welcome. Enable remote or hybrid working patterns where possible to enhance diversity and broaden the geographical reach of the workforce	Mature employees may be interested in a broader range of benefits to remunerate their contribution. This might allow the organisation to move to a more variable cost option when considering workforce management.

Low Priority Medium Priority High Priority

It is an exciting time to be involved in automotive and mobility, but the commercial opportunities that come with technological transformation are in danger of being stymied by skill shortages at the local and macro levels. This challenge affects every sector and extends globally, but the automotive and mobility business leaders interviewed in this research underline the peril the industry is facing unless it can solve its problems.

The day-to-day challenges of managing people have also increased significantly in the post-pandemic world of flexible working, which means 'Operational HR' is at full stretch addressing the ever-expanding requests to balance personal choice with business needs.

Deploying 'Strategic HR' to address the evolution of the business in the context of acute skills gaps is a significant task that requires involvement and commitment across all functions. It is for this reason that resourcing strategies must be managed at the top table as a significant business risk, with the appropriate commitment, resource and accountability.

It is clear from our research that there are already some excellent

resourcing initiatives taking place within the industry, particularly in relation to building entry-level talent pipelines, enhancing the employer value proposition and leveraging the decarbonisation agenda to attract and retain talent.

We are also seeing signs that diversity and inclusion is becoming a cornerstone of HR activity rather than the tick-box exercise it once was, particularly with the growing normalisation of remote and hybrid working. We believe there is potential to take this further, particularly in the area of more mature employees, who have been so often neglected in the D&I debate. It is, of course, important that mature people returning to the workplace are prepared to work flexibly and be comfortable with a different position in the organisation, bringing their skill and experience to the company, if not having their previous title.

Set against this, a number of businesses have sought quick fixes by paying more, either with sign-on bonuses, higher starting salaries or by enabling employees to qualify for bonuses before completing probation periods, which not only impacts companies' cost base but prolongs the problem by feeding the beast of inflation. Spiralling salaries have also been reported in international regions,

impacting the viability of offshoring parts of the business to access cheaper talent pools.

No one should pretend that finding a way out of the current situation will be easy, but elevating the talent strategy to boardroom status is a start. Ultimately, it comes down to agile and imaginative leadership to navigate the right path, using new thinking combined with some of the ideas highlighted in the three Roadmap 2025 tables.

Above all, the key challenge facing business leaders is to create a realistic vision of what success will look like for the people who will deliver it. Our industry is world class at producing images, displays and events to promote and discuss technology, but now is the time to apply similar levels of ingenuity and resources to ensure we attract and retain the people with the skills required to make that vision become reality.

Bring on the challenge.

Useful resources

One of our ambitions when producing this report was to provide practical information to help organisations address the skills gap. In addition to the insight from other sectors beyond automotive, below is a selection of resources that participants in our research signposted as helpful to their skills development programmes.



Upskilling

[CENEX Future Learning](#) – a portal with online courses, including videos and quizzes, introducing low emission vehicles, vehicle-to-grid technology and shared mobility. Based on 15 years of market transformation programmes by CENEX.

[Government employment and training schemes](#) – links to nine programmes, ranging from apprenticeships to industry placements, which are supported by public funding.

[Arnold Clark Innovation Centre](#) – The UK's second-largest retailer invested in an innovation centre in Glasgow that provides education for both customers and staff on new technology and electrification. In addition to internal skills development, the centre provides a unique retail customer experience and is a beacon for potential employees. A second innovation centre has just opened in Stafford.

Smart partnerships

[Accessing talent from the Armed Forces](#) – an increasing number of service leavers, veterans and reservists are transferring skills developed in the armed forces to the automotive and mobility sectors. Mission Automotive is a programme developed to help organisations engage with ex-service personnel.

[The Automotive Industry Career Guide](#) – 74 pages of articles providing insight into the range of careers available in R&D, manufacturing, distribution and access to mobility.

This online guide includes contacts for industry organisations and tips on how to apply for roles. Published by the SMMT Charitable Trust Fund, this is a comprehensive introduction to opportunities in the sector.

Engagement with education

[National Electrification Skills Framework and Forum](#) – a collaborative alliance of academic institutions and industrial partners to identify the key principles and skills needed to make the UK a world leader in battery technology, power electronics, motors and drives, and the clean energy generation.

The National Electrification Skills Framework and Forum provides an opportunity to map, design and deliver the training needed to supply these skills for the UK's workforce.

Brand attraction

[Journey Makers from Arval](#) – one of the challenges faced by sustainable fleet and leasing company Arval UK in attracting and retaining staff was that it did not have a brand which was widely recognised outside of the fleet industry.

The company created an inspiring employee brand, The Journey Makers, based on the narrative that they are the people behind millions of safe journeys, successful business trips and happy holidays.

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Jardine Motors Group

JATO

Keyloop

LEVC

Lookers

Lotus

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Pivotal

Siemens Mobility


Stellantis

Toyota

TrustFord

Volta Trucks

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