

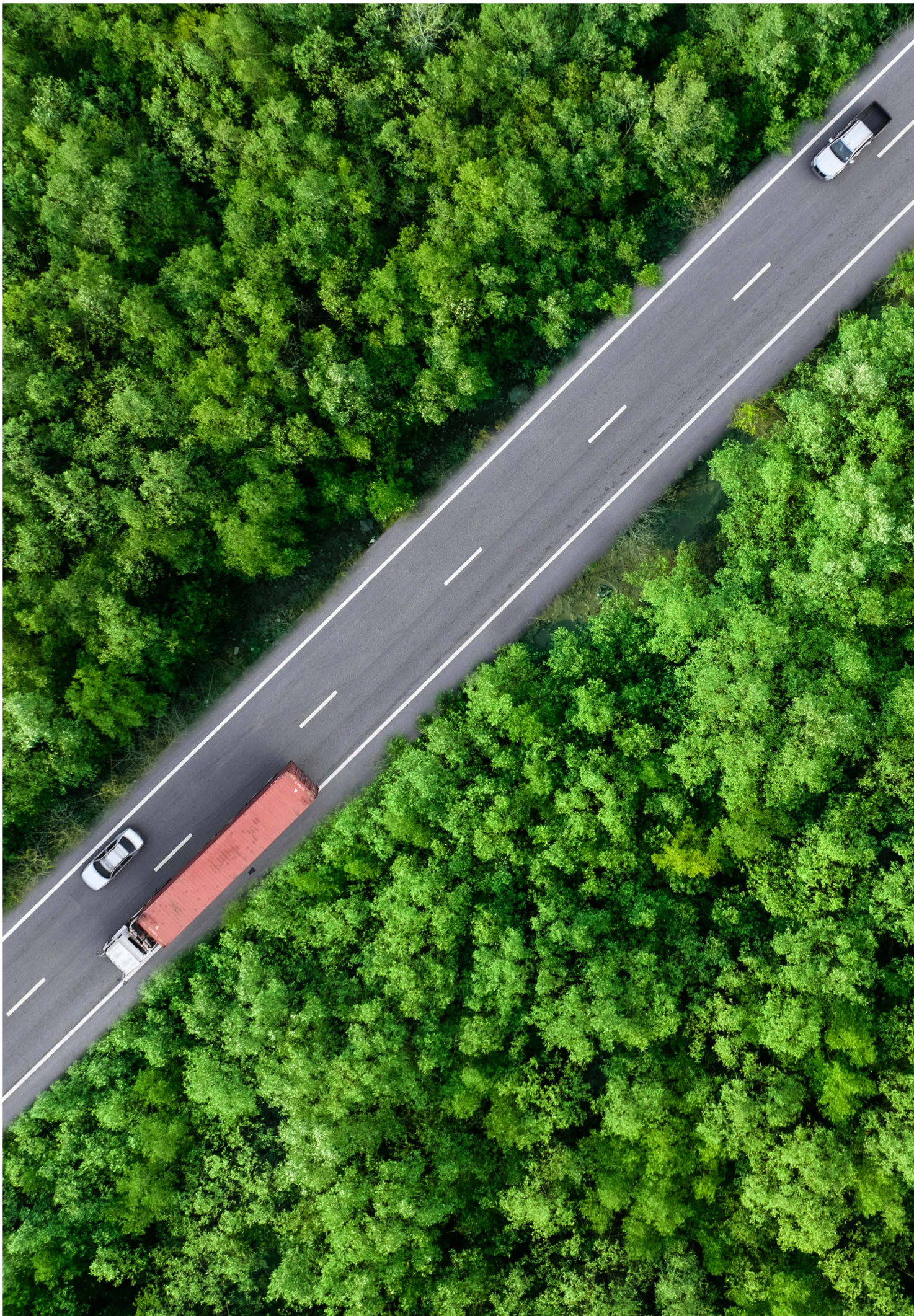


**RHA**

# *Driving the Transition*

*Preparing the road transport  
workforce for Net Zero*





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## Richard Smith

Managing Director, RHA

September 2026

**Decarbonising road transport is one of the biggest changes our industry will face in a generation.**

**At the RHA, our position is clear: we are committed to reducing carbon emissions, but the transition must be practical, achievable and commercially viable for the businesses and people we represent across the HGV, coach and van sectors. That means understanding not only where we need to get to, but what needs to be in place to get us there.**

Over recent years, the RHA has been purposely building a body of evidence around those questions, grounded in the experiences of the operators and people who will ultimately have to deliver the transition.

Our Future of Fleets report examined operator readiness for Net Zero and identified the substantial structural barriers businesses face. We followed this with our Payload Loss Survey Report, taking a deeper look at one of the very practical challenges associated with electrifying HGV operations. Alongside this, our work on Navigating Generational Change: Building a Future-Ready Transport Workforce has highlighted another challenge facing our industry: how we attract, retain and develop the people we will need for the future.

This latest report adds another important piece to that growing body of evidence: skills. Technology will play a fundamental role in decarbonising HGVs, coaches and vans, but technology alone will not deliver the transition. Ultimately, it will be people who make it happen.

Importantly, the transition will not look the same across every part of road transport. HGV, coach and van operators have different operating models, duty cycles, vehicle requirements and commercial pressures. A coach operator undertaking tourism, private hire or home-to-school services faces different challenges from a long-haul haulier, just as a small van operator may have very different resources and training needs from a large fleet. Our approach to skills must recognise those differences.

Drivers, technicians, engineers, transport managers, route planners, trainers, operational teams, business owners, managers and senior leaders will all need the knowledge, confidence and skills to operate in this changing environment. We need to think about skills across the whole workforce and across HGVs, coaches and vans – from those entering our industry for the first time to experienced people who will need opportunities to retrain and upskill.

The scale of the challenge should not be underestimated. Our sectors operate on tight margins while providing essential services on which businesses, communities and the wider economy depend. Moving towards alternatively powered vehicles will require substantial private investment, but it will also require the right infrastructure, financial support, policy certainty and coordination across government and industry. It also creates opportunity.

Electrification, hydrogen and low-carbon fuels will require new technical and operational capabilities. At the same time, artificial intelligence, digitalisation, data and potentially autonomous technologies will continue to reshape how transport businesses operate. Green skills and digital skills are increasingly becoming part of the same conversation.

Those opportunities will also develop differently across our sectors. The technology and skills required to operate an electric urban van fleet will not necessarily be the same as those required for long-distance HGV operations or coaches travelling variable routes and distances. Policy and training provision need to recognise those operational realities rather than assume one solution will work everywhere.

If we get this right, the transition can help us develop new career pathways, attract new talent and create a more productive, technologically advanced and resilient road transport industry.

But our research demonstrates that there are barriers we need to address.

Through in-depth interviews with operators, the wider industry and stakeholders, several consistent themes emerged. Skills policy remains fragmented across the UK. Smaller businesses can find it harder to access training, knowledge and funding – particularly important when so much of road transport, including the van, coach and haulage sectors, is made up of SMEs. The pace of technological change means training provision must continually evolve. And increasingly, the skills required for decarbonisation cannot be separated from wider digital capability.

That is why we are making three clear asks of governments across the UK. We need greater coordination so that skills and qualifications are recognised and transferable across devolved and regional boundaries. We need a regularly reviewed training pathway for road transport decarbonisation, supported by accessible, high-quality resources covering zero-emission vehicles, energy systems, digital capability and artificial intelligence. And we need greater flexibility in apprenticeship funding so that businesses can access shorter, targeted training to upskill the existing workforce as technology develops.

Crucially, those solutions must be accessible and relevant whether you operate one van, a coach fleet or hundreds of HGVs.

There is another important point. This cannot simply be something done to our industry. It needs to be developed with our industry. Operators, training providers, manufacturers, government, education providers and trade associations all have a role to play. We need to listen particularly carefully to the businesses and people who will have to make the transition work in practice.

At the RHA, that is why evidence matters. Each report adds another piece to the picture. Taken together, they allow us to move the debate beyond ambition and towards understanding the practical conditions required to deliver change.

Vehicles. Infrastructure. Energy. Investment. Regulation. Skills. People.

They are interconnected, and progress in one area without progress in the others will not deliver the transition we need.

Most importantly, we must invest in our people. Because whatever technology ultimately powers the HGVs, coaches and vans of the future, it will be a skilled, confident and capable workforce that makes that future possible.

# Overview

**The UK's transition to Net Zero represents one of the most significant industrial transformations in a generation. For road transport, the challenge extends far beyond replacing diesel vehicles with zero-emission alternatives. It requires the development of an appropriately skilled workforce capable of managing changing technologies and the supporting infrastructure.**

While much of the national conversation has focused on vehicle technology, charging infrastructure and investment incentives, less attention has been given to the people who will ultimately deliver the transition. Drivers, technicians, transport managers, route planners, and depot managers will all require new knowledge and competencies if the sector is to decarbonise successfully, as will managerial and C-suite staff who must lead their companies during this transition.

The RHA has been at the forefront of leading a pragmatic transition to Net Zero that balances environmental ambition with commercial reality. Our members recognise both the opportunities presented by emerging technologies and the challenges associated with adopting them within an industry characterised by tight operating margins, an ageing workforce and longstanding recruitment difficulties. At the time of writing, there are over 1100 registered electric HGVs<sup>1</sup> on UK roads out of a total number of 495,000 HGVs.<sup>2</sup> Furthermore, the commercial vehicle sector is made up of small and micro businesses, with 92% of freight operators having 10 or fewer employees<sup>3</sup> and 66% of coach operators having 15 vehicles or fewer<sup>4</sup>.

This structural reality presents real challenges for a successful transition away from diesel vehicles. The prize is to ensure all existing businesses both large and small have the skills, capability and resources that allow them to introduce zero and, as appropriate, low emission vehicles into their fleets to help meet national climate obligations.

We are equally clear that the skills needed to affect the transition extend beyond the road transport sector, as we are dependent on other sectors (such as energy) overcoming their skills shortages and expanding their workforces to address shared objectives, such as ensuring adequate charging/re-filling infrastructure is in place.

To help inform how the skills agenda can evolve to support a successful transition to zero-emission and (as appropriate) low-carbon vehicles, we conducted 10 in-depth interviews with key partners plus a literature review. From this research, we make the following observations:

- Net Zero is a workforce transformation challenge, not just a technology challenge
- Although the biggest constraint is technicians, engineering capability and digital skills, soft skills were seen as equally important in driving change
- Digital skills are becoming inseparable from green skills
- Small and medium-sized enterprises (SMEs) face greater barriers to accessing knowledge and training than large organisations
- Government skills policy remains fragmented and too focused on the Industrial Strategy Priority Sectors, which fails to recognise the interconnectivity of the skills requirement
- Modular training which can be agile and responsive to changing requirements will be crucial
- Cross-party consensus to provide confidence and vision for industry is vital for business investment

To ensure high-quality, targeted and sustained investment in skills occurs to deliver transport decarbonisation, we make the following asks:

- a coordinated UK-wide approach so skills and qualifications can transfer across devolved and regional boundaries
- a regularly reviewed training pathway for road transport decarbonisation, led by DESNZ with each nation's skills body and industry representation
- a public portfolio of high-quality training resources on zero-emission vehicles, energy systems, digital capability and artificial intelligence
- more flexible apprenticeship funding, including wider access to short apprenticeship units for upskilling the existing workforce
- short, modular courses need to be developed to create "stackable" learning programmes
- a mechanism for rapid course development and funding in response to emerging technologies
- long-term, cross-party policy certainty so employers and training providers can invest with confidence

Based on the real-world experiences of those partners we interviewed, this report expands on these issues and themes in greater depth. This is within a national policy context in which, in June 2019, the UK Government committed the UK to be Net Zero by 2050. To focus delivery within the road transport sector, successive Governments have set a Zero-emission Vehicle Mandate, under which all new car and van sales are zero-emission from 2035.

For HGVs, the previous Conservative Government specified in 2021 that sales of new diesel HGVs under 26 tonnes will stop from 2035, with sales of all new diesel HGVs stopping from 2040. Equivalent end-of-sale dates for coaches are not currently in place. At the time of writing, the Labour Government has been consulting on how it "may design a regulation to enable these [HGV] phase-out dates", which would also encompass coaches.<sup>2</sup>

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1 Society of Motor Manufacturers and Traders (SMMT) – see: <https://www.smmt.co.uk/hgv-demand-dips-in-2025-as-nascent-zev-uptake-grows/>

2 Department for Transport, 2026, Consultation on a New Heavy Goods Vehicle CO<sub>2</sub>Emissions Regulatory Framework for the United Kingdom: <https://www.gov.uk/government/consultations/new-hgv-co2-emissions-regulatory-framework-for-the-uk>

3 Office for National Statistics, 2025: [Annual Business Survey 2025]: <https://www.ons.gov.uk/businessindustryandtrade/business/activitysizeandlocation/bulletins/ukbusinessactivitysizeandlocation/2025>

4 CPT, 2023, Coach Route Map to Destination Zero: <https://www.cpt-uk.org/media/ujknzryr/zept-coach-route-to-destination-zero-report-final.pdf>

# The RHA approach to decarbonisation

The RHA is committed to breaking down the barriers that prevent the uptake of zero-emission and, as appropriate, low-carbon commercial vehicles. Our end goal is to see an adequate supply of affordable zero-emission commercial vehicles via a vibrant second-hand market. This is to ensure that our vital small and medium-sized enterprises (SMEs), which make up 95% of the logistics and coach sectors, can affordably acquire these vehicles to thrive. We see the use of low-carbon fuels as a pragmatic interim step whilst zero-emission technologies develop to replicate the performance of their diesel equivalents.

Achieving this requires a functioning vehicle market. In simple terms, manufacturers or first users must provide vehicles that commercial operators are willing to buy to meet their end-customers’ needs. Our aim is to remove the barriers that stop a market for zero-emission vehicles from developing. These barriers are cost, infrastructure, vehicle performance, skills and mindset change.

Given the high up-front vehicle costs associated with the nascent nature of the zero-emission HGV market, it is essential that the market evolves to the point where economies of scale can naturally drive down vehicle costs. This requires increased vehicle production levels driven by operator demand and a skilled workforce.

## Informing the transition

To shape the transition to zero-emission commercial vehicles, the RHA has published a series of reports. In June 2025, we published our Future of Fleets<sup>5</sup> report, which set out findings from the first survey of its kind to benchmark commercial vehicle operators’ readiness to decarbonise their fleets. Our report reflected the very real challenges of meeting the UK’s climate obligations.

We were encouraged that 23% of HGV operators, 39% of van operators, and 17% of coach operators either have electric vehicles in their fleets or plan to do so within the next 5 years. However, 70% of HGV operators, 75% of coach operators, and 56% of van operators reported having no plans to introduce zero-emission vehicles into their fleets, with HGV operators citing lack of vehicle mileage, cost, and payload loss as barriers to doing so. This is a stark reminder that decarbonisation must be commercially viable, and that the vehicles which transport our goods and passengers on UK roads must pay for themselves.

Our second report – Payload Loss Survey Report published in March 2026<sup>6</sup>– examined the payload loss that occurs for HGV operators where the two-tonne battery derogation does not apply, typically at 44 tonnes. Our analysis found that payload loss makes an electric 6x2 lorry at 44 tonnes £28,282 more expensive per year than diesel; without payload loss, and with depot charging at £0.25 per kWh, it would save £1,855 annually. Our asks of the Department for Transport to remedy this are:

- increase authorised gross vehicle weight for electric HGVs from 44 to 46 tonnes
- increase authorised drive axle weights from 10.5 to 12.5 tonnes
- convene a technical working group to consider changes to authorised weights and Construction and Use regulations

Together with related changes to vehicle length and turning requirements, this would remove a key regulatory barrier hindering uptake of affected electric HGVs.

# Expert Interviews – methodology

Our third report, focussing on skills, has been informed by a qualitative approach, combining in-depth interviews with commercial vehicle operators who had already begun their decarbonisation journeys with interviews with sectors on which road transport decarbonisation depends. Our objective was to understand better the skills required for the transition from both a broad, sectoral context and from within businesses in the freight and logistics sector. The structured interviews for both operators and the third sector can be found in Annex 1.

The questions were designed to explore common areas at the centre of the skills transition whilst allowing for some flexibility for differences in the experience of operators and the third sector.

| Operators                                         | Third-sector Stakeholders                                                |
|---------------------------------------------------|--------------------------------------------------------------------------|
| Business Overview (including transition progress) | Sector Overview (including the sector's contribution to the transition). |
| Dependent Sectors                                 | Dependent Sectors                                                        |
| The Workforce Skills Challenges                   | The Skills System and Training Provision                                 |
| Soft Skills and Workforce Culture                 | Technology, Digital and Soft Skills                                      |
| Policy and Recommendations                        | Policy and Recommendations                                               |

The RHA conducted 10 structured interviews in the summer of 2026, with respondents briefed on the subject matter and questions beforehand. In selecting for respondents, we sought to gather thoughts from those with explicit expertise and experience in the transition of commercial fleets or a related sector. In addition, the interviews engaged with those deeply involved in the development of policy related to the transition – selecting for the greatest seniority where possible.

These discussions helped us understand both the practical challenges facing operators as they introduce zero-emission vehicles and identify cross-sector dependencies that will shape delivery, including vehicle maintenance, energy infrastructure, planning, digital and artificial intelligence.

To supplement both question design and the conclusions of this report, the RHA also undertook a literature review to draw out additional insights from existing research, policy documents and sector analysis, ensuring the findings reflect both direct industry experience and the wider evidence base.

Each section which follows within this report is structured in the following way. We summarise the key themes and findings from our interviews first, followed by our assessment of the issues that arise.

5 RHA, 2025, The future of fleets – informing the Net Zero transition for commercial vehicles: <https://www.rha.uk.net/Portals/0/Campaigns/Publications/RHA-Publication-The-Future-of-Fleets.pdf?ver=DbCR5Wb9YdD4k0hJb0JuZA%3d%3d>

6 RHA, 2026, Payload Loss Survey Report: [https://www.rha.uk.net/Portals/0/Campaigns/Publications/RHA-Payload-loss-survey-report\\_230326\\_web-spreads.pdf?ver=zxvPG3hPEex8vme4ftEjNw%3d%3d](https://www.rha.uk.net/Portals/0/Campaigns/Publications/RHA-Payload-loss-survey-report_230326_web-spreads.pdf?ver=zxvPG3hPEex8vme4ftEjNw%3d%3d)



# Net Zero skills: past, present and future

## Framing the issue

To inform our research, we wanted to ascertain views on how skills across the United Kingdom is currently delivered and whether the commercial vehicle sector can learn from other industries, with a view to providing recommendations for government and improvements to the skills system. Both operators and third sector stakeholders were asked questions regarding how the Government might accelerate the transition from a skills perspective and what priorities must draw focus in the coming years. (See Annex 1: Questions 20–21 for operators and 24–25 for sector stakeholders).

A common theme expressed by interviewees was the need for ‘consistency’ and ‘continuity’, as this would have maximum impact from government to help industry prepare for Net Zero. Another core ask was for a committed, well communicated and subsequently executed skills plan with space for engagement with the private sector.

## Our assessment

Successive governments have increasingly recognised the importance of green skills in achieving the target of Net Zero by 2050. Strategies produced by Skills England, the Department for Education, the Office for Clean Energy Jobs (OCEJ), the Department for Energy Security and Net Zero and Skills Development Scotland all identify workforce capability as essential to achieving Net Zero.

Across England, combined authorities have also identified clean energy skills in Local Skills Improvement Plans (LSIPs), increasingly referencing technical, engineering, and digital skills as key areas for development. These skills requirements are filtering through apprenticeships, new short-course Apprenticeships Units, Skills Bootcamps, Mayoral Skills Funds, and targeted technical programs.

We observe that the road transport sector occupies a unique position within the wider Net Zero transition. It supports almost every other part of the economy, enabling the movement of goods, construction materials, food, healthcare supplies and passengers.

Operators we interviewed however were clear that progress towards decarbonisation depends not just on the transport sector’s own workforce but also on developments in electricity generation, charging infrastructure, vehicle manufacturing, planning policy, and digital technology. Furthermore, as businesses across all industry sectors shift their focus to meeting Scope 3 emissions under the internationally recognised Greenhouse Gas Protocol, we comment that the road transport sector will be under increasing pressure to provide zero-emission transportation of goods and services.

However, an additional theme that we noted during our research is that the introduction of zero-emission vehicles into fleets has progressed more slowly for HGVs and coaches than for buses. High vehicle costs, uncertainty surrounding future technologies, infrastructure limitations and on-going day-to-day cost pressures arising, for example, from the Iran crisis in 2026 have all influenced HGV and coach investment decisions. In turn, this has affected workforce planning.

It was also noted that bus sector decarbonisation has been driven by government policy and has received significant national funding, with a devolved policy focus too. However, interviewees recognised that the freight sector can learn from and, indeed, take advantage of advances in bus decarbonisation such as sharing bus infrastructure and depot charging and utilising apprenticeship course materials.

*Karen Bailey, Volvo Group and Chair of the Heavy Vehicle Technician Trailblazer Group “[Regarding bus developments in EV technology] It creates a bit of a breadcrumb trail for us, and it pushes the industry further and faster. Because they’re already having to convert, it does mean that we have a route map there for us but making the qualifications so that they are transmission neutral and allow for that flexibility in the fleets and allow operators to be able to flex more easily and be more agile. I think is really important.”*

We further observe that, during the transition, operators will be increasingly managing mixed fleets of diesel and zero-emission vehicles. This creates additional complexity rather than reducing it, requiring technicians and managers to maintain competence across multiple technologies simultaneously.

Based on the interviews conducted for this report, a key thread was a desire for cross-party agreement. When interviewees were asked for their one immediate policy change, stability came through strongly alongside having a long-term vision that extended beyond the five-year cycle of Parliamentary elections.

*Matthew Deer, Swain Group: “I think stability in terms of direction, because a lot of these investments now on these sorts of alternative vehicles, they are not one or two years, but seven years of investment”.*

## Recommendation

Long-term, cross-party policy certainty, so employers and training providers can invest with confidence.

# How the devolved skills system works per country

## Framing the issue

Given the plurality of devolved skills policy and distinct regional logistics challenges, we wanted to gather views on how different regions and nations across the UK implement skills provision. (See Annex 1: Question 8 for third sector stakeholders).

We found through our interviews that skills accessibility and availability of suitable training varied across the UK. Technical skills broadly appeared to see acute “deserts” in the north and southwest of England and devolved nations. For specific commercial interests such as warehousing and grid connections, shortages generally mapped to clusters of logistics activity.

## Our assessment

A clear message we received from the interviews is the skills needed for road transport and related sectors require coordinated planning. Additionally, the devolved nations should work to prevent borders from becoming obstacles for businesses when training employees. Many companies operate across these devolved nations, and navigating the different skills systems, curricula, and standards introduces an additional layer of complexity.

We observe that training routes for young people and adults change regularly, which can be helpful for responding to differing skill needs. However, businesses and training providers struggle to keep up with changing programs and funding availability.

We set out in the following table an overview of how skill pathways operate across the constituent countries of the United Kingdom.

| Country          | Principal route for young people entering work  | Principal routes for existing workers                                                           | Funding arrangements                                                                                                                                                                                                                          |
|------------------|-------------------------------------------------|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                  |                                                 |                                                                                                 | NB All employers in the UK pay into the Apprenticeship Levy if they have a payroll of £3m and over. Levy funds are allocated to devolved nations as per the Barnett Formula. These funds are not ring-fenced.                                 |
| England          | Apprenticeships, T-Levels                       | Apprenticeships and apprenticeship units, Skills Bootcamps, Sector Based Work Academies (SWAPs) | Apprenticeship funding is via the Digital Apprenticeship Service (DAS). Skills bootcamps are mainly focused on the Industrial Strategy priority sectors with some funded nationally and others via devolved budgets. SWAPs are funded by DWP. |
| Northern Ireland | Skills for Life and Work and Apprenticeships    | All-age apprenticeships, Higher Level Apprenticeships, Assured Skills Academies and FE courses  | Off-the-job training is funded directly by the Department for the Economy.                                                                                                                                                                    |
| Scotland         | Foundation, Modern and Graduate Apprenticeships | Modern and Graduate Apprenticeships, college provision and local employability programs         | Funding contributions are made by Skills Development Scotland dependent on framework and age.                                                                                                                                                 |
| Wales            | Jobs Growth Wales+, all-age apprenticeships     | Apprenticeships, Personal Learning Accounts, Flexible Skills Programme and ReAct+               | Combination of fully funded apprenticeships and targeted employer/individual grants                                                                                                                                                           |

In addition to the devolved nations, there are the mayoral, combined authority and county approaches. These can help colleges and independent training providers to react to local skills shortages but also have a commercial impact on employers.

We observe that boundaries between areas can have operational impacts. For example, road transport operators in the West Midlands Combined Authority (WMCA) can have access to HGV driver training via bootcamps. However, if a business is located just outside the WMCA and not in a mayoral area, then access to that training is not available.

We observed that national operators face additional challenges when colleges and independent training providers (ITPs) create courses tailored to a local market. Larger organisations with multiple locations require a standardised approach to their training programs. While customised courses for local employers can be beneficial, it is crucial to ensure uniformity in the content. When there are variations, employers may opt to send their employees to residential courses to achieve the desired consistency, leading to extra costs for accommodation and subsistence.

**Karen Bailey, Volvo Group:** *“From a skills point of view, I do think devolution is great...However, we can’t evolve too far because it makes it difficult for industry to think as a collective, [what would be ideal is], here’s our overarching policy, but then here are our local capabilities that may enable that”.*

Overall, the RHA recognises the value of devolving skills policy across the United Kingdom as this can address distinct local needs. However, it comes with risk – specifically, fragmentation and overspecialisation which can be problematic for businesses that work across the entire UK. Where devolved regions and countries offer different funding mechanisms, navigating the bureaucracy involved is burdensome for businesses which, in turn, risks impeding workforce training programs especially for small businesses.

In England, Skills England is beginning to reshape the post-16 skills system. The UK Government is pushing forward industrial strategy priorities, and employers are making investment decisions that will shape fleet composition over the next decade. Ensuring that workforce capability keeps pace with technological change will be critical.

We note that decisions within Skills England and devolved areas are heavily influenced by the Industrial Strategy which recognises the importance of skills for growth and to achieve Net Zero. We welcome the recognition that the Government’s clean energy objectives require a sufficiently skilled workforce.

To take this forward, the Industrial Strategy recognises 8 priority sectors (IS8): Advanced manufacturing, clean energy industries, creative industries, defence, digital and technologies, financial services, life sciences and professional and business services.

However, we comment there is too much focus on the priority sectors (IS8), which filters through to mayoral skills plans. Although logistics is recognised as a foundation sector, its exclusion from the IS8 hinders the sector’s position in its inclusion within the Local Skills Investment Plans (LSIPs). Recognising logistics as a priority sector, which is critical to the Net Zero transition, would help rectify this and bring focus on local skills agendas.

Within Scotland, Transport Scotland’s Zero-emission Truck Taskforce has been running working groups for several years to help plan future needs with industry and educational providers to identify current career pathways and gaps in provision. The taskforce identified 4 key challenges: energy infrastructure, financial models, confidence in technological and commercial change and workforce skills.

Although there has been significant progress in identifying the required training and timeline, we comment that funding mechanisms still restrict access, especially for SME businesses looking to upskill their existing workforce. Currently, funding is focused on younger people with apprenticeship routes favoured. Instead, policy should consider the needs of all workers.

It is desirable therefore to shore up areas of weak skills provision whilst satisfying areas of demand. Governments across the UK should support both existing opportunities to scale regional successes in zero-emission opportunities, whilst providing the foundations for often overlooked local or regional markets to do the same.

**Recommendation**

**A coordinated UK-wide approach so skills and qualifications can transfer across devolved and regional boundaries.**

# Green skills in the road transport sector

## Framing the issue

**From the interviews we conducted, it was clear that the transition to Net Zero will impact many occupations in road transport and will directly affect an operator’s ability to decarbonise. Recognising which skills a business needs and implementing a training plan is therefore as important as having the physical infrastructure and new vehicle technologies.**

Through our interviews, we noted that there are core roles within an operator’s business regardless of size or whether the business operates lorries or coaches. Common roles are drivers, operational support and managers, and technicians (where operators have their own workshops) who all require training. We also noted that some interviewees foresaw new roles being developed, although mostly it was about upskilling and expanding roles rather than additional headcount.

We were therefore keen to explore these roles in more depth and understand how their needs through training in a zero-emission vehicle world could be met.

## Our assessment

### Drivers

**A common theme among interview participants was the ease of driver adaptation to alternatively-fuelled HGVs. It was clear that word-of-mouth testimony within organisations strengthened the interest of drivers towards new vehicles, particularly in terms of how common fears such as range anxiety were overcome. We also noted a positive feedback-loop where vehicle manufacturers provide training to the operators, that their driver trainers pass on which, in turn, led to drivers wanting to expand their skillset when operating these vehicles.**

Third sector organisations broadly reaffirmed that driver skillsets will change, whilst observing that the role already demonstrates a wide array of skills. We noted a view that drivers adapt regularly as vehicle and digital technologies, infrastructure and regulations change – indicating a willingness by drivers to continue adopting and adjusting to new technologies as they become available.

From this feedback, we make the following observations. As new technologies are introduced into businesses, drivers will require new knowledge. While driving skills remain fundamental, a greater understanding of charging procedures, range optimisation, regenerative braking, vehicle safety systems, and energy-efficient driving techniques will be needed. Moreover, drivers must build confidence in following journeys with increased specificity, centred on the availability of charging infrastructure, where previously diesel vehicles may have afforded a degree of flexibility and agency that is a comfort for drivers.

### Operational support staff and managers

**From the interviews we conducted, we noted that operators who have embraced the transition highlighted the independent nature of their learning and upskilling. Where necessary, short-courses and free-use materials were used, supplemented with in-house research and experimentation. However, there were differing views on the immediate need to identify relevant skills in new hires, who often had to be retrained or educated in a freight and logistics business environment.**

Interviewees were also asked which new roles may emerge in the next 5-10 years (See Annex 1, Question 4 for both operators and the third sector), in an attempt to understand whether freight businesses anticipate significant change.

Most respondents did not envision new job roles emerging over new desirable criteria or processes being added to existing roles. Of the roles positively identified, some companies suggested a ‘sustainability or innovation lead/director’ responsible for integrating new technology, with a remit spanning technical knowledge of on-site chargers, warehousing, maintenance facilities, and on-site energy generation, as well as constructing the business case for alternatively fuelled vehicles alongside diesel. This reflects a trend identified by the Institute of Sustainability Professionals (ISEP) as specialist sustainability roles continue to grow in the public sector<sup>7</sup>.

We identified in our interviews that transport managers and planners will increasingly become energy managers as well as fleet operators. Route planning, charging schedules, infrastructure utilisation, energy procurement and carbon reporting will all become integral aspects of transport operations.

In addition, we learnt that depot managers and workshop supervisors may oversee increasingly sophisticated charging infrastructure, energy systems and digital monitoring platforms. In turn, new safety responsibilities are likely to emerge alongside revised maintenance procedures.

We concluded from this feedback that fleet or depot management will be required to upskill to capitalise on on-site infrastructure or space. This would involve them being aware of emerging technologies and planning strategies to facilitate their introduction sustainably and profitably.

**Chris Welch, Welch’s Transport: “I think the overarching piece here is individuals and the skill to be able to interpret digital data [collected throughout the business]”.**

We observe the coach sector faces similar challenges, with an additional requirement to ensure that passengers have adequate facilities to enjoy whilst an electric coach is recharging. Common issues with HGVs encompass the need for new maintenance skills, charging expertise and operational planning capability, while longer-distance operations continue to face infrastructure challenges.

### Technicians

**We acknowledge that not every operator will have their own workshop. However, every operator relies on a maintenance provider, and any skills shortages in this key role will directly impact the ability to keep vehicles on the road and productive.**

In addition, during the transition, technicians will require knowledge of existing ICE HGVs and battery-powered vehicles, with the possibility of hydrogen also in the mix, all within a workshop which will need to separate out the technologies.

Although smaller operators who contract out maintenance will not be challenged in the same way, we observed that knowledge of defect detection on changing technologies, together with a basic knowledge of battery powered and hydrogen vehicles, will be needed, as is the case currently for ICE HGVs.

### Other roles

**During our interviews, operators and the third sector included back-office staff within their discussion of skills requirements to meet the transition. A strong theme which emerged was the potential for artificial intelligence (AI) to assist business operations, both in terms of supporting administrative tasks and utilising the potential of AI to develop and enhance other aspects of the business.**

Some respondents speculated that, for larger operators, data scientist or analyst roles may become attractive in the changing freight landscape, as digital outputs from vehicles will help advance safety, compliance, and greater business efficiencies. In addition, while operators recognised that AI systems may automate this process, appropriately trained staff would be needed to train AI systems to ask the right questions.

Importantly, we noted that these changes extend beyond traditional technical occupations. Procurement specialists, planners, compliance officers, data analysts, and marketing professionals will all likely require a greater understanding of evolving technologies and related challenges.

Knowledge to overcome and reduce the risks associated with financing decarbonisation was also raised as a

<sup>7</sup> ISEP, 2026, State of the Profession Report: <https://www.isepglobal.org/state-of-the-profession/>



barrier. Access to finance for businesses wanting to invest in zero-emission vehicles and the infrastructure they require will rely on a support system that understands the requirements without adding insurance costs.

*As Drew Roberts, ATL identified “Finance and Insurance are traditionally cautious industries”.*

In terms of energy infrastructure, warehouses will be integral. If a driver is stopping to load and unload, that is vital vehicle downtime that can be used for recharging.

*Karan Chhabra, UKWA identified that “Gaps remain in EV maintenance, energy management and sustainability reporting skills”.*

Energy management came through as a strong theme across all the conversations. Whether that’s at a depot, warehouse, parking areas or customer delivery point, all locations will require knowledge of how to gain the energy required and manage the energy markets.

Recommendation

A public portfolio of high-quality training resources on zero-emission vehicles, energy systems, digital capacity and AI.

Improving training provision

Following the feedback we received on how current roles may evolve as new vehicle technologies are introduced into fleets, we offer the following observations on how training provision can be improved.

Drivers

How can their training needs be addressed?

We noted in responses from operators that the vehicle manufacturers provide training as part of the sale or lease agreement process, and therefore bespoke training courses will not be necessary initially. However, as vehicle uptake increases, we recommend that operators may want to invest in bespoke training for all drivers across the operation.

Regarding new drivers, we recommend that urban driver and LGV Cat C+E apprenticeship standards are updated to include training for zero-emission vehicle operation. For privately funded driver training, we comment that market demand will likely determine whether zero-emission driving skills are included in the core training package.

Operational staff

How can their training needs be addressed?

We welcome that the current Transport and Warehouse Manager Level 4 apprenticeships have been revised to include new technologies, but observe that it took nearly 2 years to update these standards. Given the speed at which technology is changing, revisions to standards will need to be more responsive and less time-consuming for operators.

We comment that the Passenger Transport Manager Level 4 has not been revised since the standard was launched in 2017. This should be reviewed to ensure that new learners are gaining the future skills required.

For the existing workforce who do not require a long-form course, short modular courses will be needed to top up skills. A joined-up approach across the devolved nations should be implemented to ensure consistency.

Technicians

How can their training needs be addressed?

We comment that the key training route for new-entrant technicians is via apprenticeships. Standards and frameworks should be updated to ensure that apprentices are learning about new technologies. Training for the existing workforce is particularly key. We note that training courses exist for upskilling to battery electric HGVs, although these are rarely funded.

The scale of change

Framing the issue

During our early research, it was clear that the Net Zero transition was not simply a freight, logistics and coach transport challenge, but an all-encompassing industrial one. During prior analysis by the RHA, operators stated that infrastructure and the appropriateness of low/zero-emission vehicles were obstacles to enabling the transition. It was this that informed questions on ‘contingent sectors’ (See Annex 1: Questions 8 & 9 for operators and 5-7 for third sector stakeholders).

The objective of these questions was to understand more fully which external sectors determined the transition of heavy commercial vehicles.

From the interviews the RHA conducted, contingent sectors varied across the economy and each fed into a key component of a successful transition. Operators in particular cited grid connectivity and EV infrastructure as important, appearing to have settled the view that capacity to build charging infrastructure at speed and scale will precede more sustainable vehicles.

Among the third sector, answers were more varied and ranged from engineering roles, planning and warehousing, which together enable businesses to more readily and effectively convert existing land into assets which support alternative fuels. Additionally, from a more strategic perspective, energy transmission was of particular importance. Grid connectivity and the costs associated with bringing higher yield connections to depots was a severe bottleneck highlighted to the RHA. The ability for regional Distribution Network Operators (DNOs) to strengthen energy availability quickly and affordably was highlighted as an area of acute skill shortage.

Our assessment

It was very clear from the feedback we received that the workforce implications of Net Zero extend well beyond individual transport businesses. We observe that there will be strong competition across sectors for similar skills, whether that’s high-voltage electrical engineers, digital specialists, sustainability experts, or soft skills such as communication, problem-solving, adaptability and leadership.

Road transport sits at the centre of a much wider industrial ecosystem, which as the following graphic demonstrates, involves vehicle manufacturers, energy providers, charging infrastructure companies, software developers, training providers, colleges and governments all vying for the same knowledge base.



We comment that skills shortages in any of these layers will delay progress across the entire system. We also note that the UK government published their Assessment of the Clean Energy Skills Challenge in March 2025<sup>9</sup>. They identified several key occupations which are expected to be in demand across the clean energy sectors.

- **Engineers** – particularly level 6 and above
- **Welding and mechanical trades** – these trades are already difficult to recruit for
- **Electrical trades** – all levels
- **Planning roles** – delayed planning applications will hinder infrastructure

From our desk research, we noted that managerial roles and other occupations – project managers are in high demand, along with legal, procurement and finance. The Energy Skills Intelligence Hub identifies a “talent tug-of-war”<sup>10</sup>. Reviewing research across the engineering sector, like road transport, there is an ageing workforce, mixed with a low take-up of roles amongst young people. A study by the Engineering Construction Industry Training Board in 2018 reported that in 2026 20% of the UK’s engineering professionals will have retired or be close to retiring<sup>11</sup>.

A strong theme from our interviews was agreement that there will be significant demand for engineering, electrical and digital occupations. Furthermore, competition for these skills is likely to intensify as construction, energy, manufacturing and transport all seek similar capabilities.

9 Department for Energy Security & Net Zero, 2025, Assessment of the clean energy skills challenge: <https://www.gov.uk/government/publications/clean-power-2030-action-plan-assessment-of-the-clean-energy-skills-challenge/assessment-of-the-clean-energy-skills-challenge#clean-energy-workforce>

10 <https://energyskillshub.co.uk/the-energy-sectors-looming-battle-for-talent-a-10-year-scramble-for-skilled-workers/>

11 Engineering Construction Industry Training Board, 2018, Engineering Today – The Supply & Demand for Engineers in the UK, p4

Indeed, skills shortages within the energy sector were already being cited as a problem which will stall BEVHGV take-up. As Matthew Deer, Swains Group commented “even if all the chargers are in place, there won’t be enough electricity to deal with the problem anyway...on our pipeline we can see 10 years out [and are watching to see government/national grid infrastructure align with this]”.

Heavy voltage electricians are in particular demand – grid operators repeatedly cite shortages of specialist engineers as a primary reason that projects can’t accelerate<sup>12</sup>.

Mike Nakrani, VEV: “There’s a backlog from National Grid. There’s a backlog from the DNO, there’s a backlog from the IDO. In the Netherlands they’re saying it’s five years to get a grid upgrade connection. And why is that? Well, it’s the people to do the actual connections. It’s not the people who dig the hole. It’s the people who do the connections, and the people who build the kit – they cannot build the kit fast enough because every data centre is trying to do the same.”

The Climate Change Committee suggested that in the UK, the green transition could yield as many as 725,000 new jobs<sup>13</sup> with around 75,000 owed to EV deployment and battery manufacturing. Energy UK suggests that by 2030 the power sector alone requires at least 156,900 new roles, and accounting for attrition, around 22,400 new recruits per year<sup>14</sup>.

This competition reinforces the need for proactive workforce planning rather than reactive recruitment. There is growing concern regarding ageing workforces across engineering occupations. Road transport already experiences shortages among heavy vehicle technicians and transport professionals. Unless these trends are addressed, decarbonisation may increase existing recruitment pressures.

Recommendation

A regularly reviewed training pathway for road transport decarbonisation, led by DESNZ with each nation’s skills body and industry representation.

Data competence and maturity

Framing the issue

The RHA is increasingly aware of the growing role of data and digital competence in the deployment of low/zero-emission vehicles, and we wanted to explore with both operators and the third sector the extent to which these skills will be required to enable the transition (See Annex 1: Question 11 for operators and 17 for third sector stakeholders).

Throughout the interviews, comments related to digital skills and AI provided some mixed views and predictions. Some respondents felt strongly that digital aptitude and the ability to deploy artificial intelligence (AI) to solve problems were critical skills that would define businesses in the coming decade. However, others (particularly the smallest of operators and trade bodies asked) viewed AI as a tool to simply enhance specific tasks and functions within a business and saw future businesses relying on automated data infrastructure.

In addition, some respondents highlighted the role vehicle manufacturers will play as a substitute for greater upskilling or experimentation with digital tools, as manufacturers are likely to manage a greater share of this digital skills requirement. In general, the RHA found that digital roles, automation, and AI were not viewed as a direct threat to workforce numbers but rather as a means to augment existing roles and improve efficiency. However, this will vary from role to role.

12 Euro Engineer Jobs, 2026, High-Voltage Transmission Recruitment in 2026: Why the Grid Skills Crisis Will Decide the Energy Transition: <https://www.euroengineerjobs.com/article/1057/high-voltage-transmission-recruitment-in-2026-why-the-grid-skills-crisis-will-decide-the-energy-transition>

13 Climate Change Committee, 2023, A Net Zero Workforce: <https://www.theccc.org.uk/publication/a-net-zero-workforce/>

14 Energy UK, 2025, Building the workforce for our future energy system: <https://www.energy-uk.org.uk/publications/building-the-workforce-for-our-future-energy-system/>



Our assessment

Digital capability is becoming as important to road transport decarbonisation as technical knowledge. Predictive maintenance, connected vehicles, telematics, fleet management software and data analytics are already changing how transport operations are planned and managed. As these technologies develop, workers at every level will need the confidence to interpret data, use digital systems and turn information into evidence-based operational decisions.

Low-emission vehicles demand greater data maturity and more sophisticated analytical structures within businesses and, whether automated or not, require in-house expertise. Operators will need to analyse duty cycles, routes, payloads, energy consumption, charging or refuelling requirements and vehicle availability to determine which technologies are viable for different parts of their fleets. Digital tools can also help businesses optimise routes, reduce empty running, improve driving efficiency, manage charging schedules and identify maintenance issues before they result in costly vehicle downtime.

Despite the potential upsides, we comment that access to technology alone will not deliver the Net Zero transition. Business requires the internal capacity to understand what data is valuable, access and safely store it, assess its quality and apply it in an operational context. In turn, businesses will be required to integrate digital knowledge into existing systems which manage the key functions of their operations and understand how different programs communicate and support each other.

At present, many operators rely heavily on the vehicle manufacturers, external partnerships or unstructured learning to bring these technologies into an operational setting. This is particularly difficult to apply where resources and expertise are scarce – such as in smaller operations. In order to enable low-emission vehicles, investment in software must be accompanied by accessible training and implementation support.

**Mike Nakrani, VEV:** *“I think one of the definite areas where we’re seeing shortages is on data – data analysis, insight, understanding at what we call a ‘visceral’ level. Data is still the new oil and we need the people to help interpret what that data is telling us so fleets can take action with confidence.”*

**ATL:** *“Yeah, I don’t think you can’t be digitally literate now. I think it’s 100% in the safety that AI is. I don’t think we really know how far AI is going to go. So I think that absolutely it’s it will be a bottleneck for you as a person or an organisation if you don’t have it.”*

Emerging digital requirements can also encourage greater creativity within the workforce by enabling employees to find new ways of solving problems and integrating technology into established practices. Artificial intelligence and digital partnerships will rely on an operator’s ability to ask the right questions, challenge outputs and identify new use cases that improve the operational and commercial viability of transitional fuels and battery-electric alternatives.

Human judgement will remain essential: technology can identify patterns and model options, but experienced transport professionals must determine whether its recommendations are practical, safe and appropriate. For operators today, AI and digital systems are in an experimental phase, and many view them as ‘tools’ to enable greater productivity. Irrespective of this, greater access to training will bring forward these advantages.

**Emma Thompson, Society of Operations Engineers:** *“Artificial intelligence has significant potential to support productivity and decision-making, but it does not replace professional competence. As technology evolves, the ability to interpret information, apply engineering judgement and make safe, informed decisions will become even more important.”*

The sector should therefore avoid designing digital systems in isolation and then expecting workers to adapt around them. Instead, technology, job design and skills development must progress together: we grow the hands to fit the glove. This means involving the workforce in the adoption of new systems, building digital confidence alongside technical expertise and ensuring that innovation complements the practical knowledge already embedded across road transport.

Recommendation

Short, modular courses need to be developed to create “stackable” learning programmes that can keep up with changing demands.

Soft skills supporting the transition

Framing the issue

Our initial review of existing literature identified ‘soft skills’ as an important component in enabling organisational change towards Net Zero. As such, both operators and the third sector were asked to consider these soft skills, changing workforce culture and intergenerational relationships (See Annex 1: Questions 10 and 12 for operators and 18 and 19 for third sector stakeholders).

It was clear among interviewees that some level of communication or interpersonal skills would have the most immediate effect on the transition. The ability to communicate the vision of sustainable logistics and relay the operational differences to customers was considered critical to generating revenue with non-diesel assets.

Experts whom we interviewed commented that young people lacked confidence or social skills, which could undermine the efficacy of organisation-wide change. However, in relation to intergenerational workplaces, respondents highlighted that while older generations may be less prepared to upskill in an increasingly digital economy, younger generations often supplemented these skills. Overall, organisations are finding that intergenerational relationships will be crucial moving forward, enabling new hires to apply their skills practically to the business whilst long-term hires adapt to new technology and methods of working.

Leadership was also consistently highlighted as a crucial soft skill for managerial staff and directors. Gaining buy-in from the entire organisation was the first step towards a successful transition. Furthermore, the ability to advocate for and demonstrate the benefits of new digital tools and processes helped build the confidence needed for the business to adapt to these changes.

Our assessment

While technical competence will remain essential, successful decarbonisation will also depend upon broader organisational capability and transferable skills.

We comment that managers will require stronger leadership, change management and strategic planning skills to oversee complex technological transitions. Communication, collaboration and workforce engagement will also become increasingly important as organisations implement new operating models.

Furthermore, the need for communication skills also extends to customer service, as we observe that customer-facing roles will be required to sell the vision of electric vehicles and explain the operational and societal benefits of them. These roles must also dispel assumptions and identify synergies early on to improve the compatibility of the operators’ fleet to the task at hand.

We note that sustainability is also becoming embedded within wider business practices. Organisations are increasingly expected to understand carbon reporting, sustainability frameworks, environmental governance and responsible procurement. Although these requirements often sit outside mandatory vocational qualifications, they are becoming part of everyday management practice.

Professor Alan McKinnon in his report “Current Issues in logistics and transport: Skilling-up for the decarbonisation of freight transport”<sup>15</sup> identified 10 competencies that logistics managers will require for decarbonisation.

1. Appreciation of the climate science

2. Understanding of GHG emission processes

3. Auditing of GHG emissions

4. Derivation of emission reduction targets

5. Anticipating and complying with government climate action
6. Reviewing logistics decarbonisation options

7. Keeping abreast of advances in technology

8. Economic analysis of logistics decarbonisation options

9. Securing climate finance

10. Decarbonisation-related change management

15 Alan McKinnon, 2024, Current Issues in Logistics and Transport: <https://www.alanmckinnon.co.uk/blog/?paged=2>

For a large organisation, investment sustainability specialists will help leadership teams gain this knowledge. However, for SMEs that operate with skeleton back-office staff structures, we comment that investing in this specialism at a time of rising costs will act as a barrier. Leaders in SMEs will therefore need access to short courses in all formats to keep up to date with competencies.

Estimates suggest that within the decade around 9 in 10 UK workers will require reskilling, around 30 million people<sup>16</sup>. We accordingly observe that strong leadership will be needed to ensure that existing and, in particular, older workers are retained and upskilled to meet a digital and decarbonised future. “Mindset change” across organisations to embrace this future will therefore be key.

This is within a context where we have five generations in the workplace. The RHA’s “Navigating Generational Change: Building a Future-Ready Transport Workforce report”<sup>17</sup> published last year showed that generational inclusion is not just a social goal. It is a business-critical strategy. Valuing experience, embracing innovation, and enabling collaboration across generations will be key to a resilient, future-ready workforce.

When designing training, we further comment that the learning styles of different generations must be factored in. Where older generations might prefer traditional classroom and structured learning, younger people favour bite-sized e-learning courses.

**Matthew Deer, Swain Group:** *“[We] are finding there’s some crossover between skills that are coming through [younger technicians] and actually the young technicians are finding things that the older technicians wouldn’t find, so I think at the moment we are reasonably harmonised”.*

*“You feel the impact of age in our industry...it’s becoming a bigger problem in the next five years” [in both driver numbers and workshop staff across the whole industry]. “I think the adaptability of the workforce is definitely there. I think people are prepared to change if they’re trained correctly and encouraged correctly”.*

Soft skills should therefore be viewed as complementary to technical competence rather than separate from it. The future workforce will require adaptability, continuous learning and confidence in adopting emerging technologies.

Recommendation

A mechanism for rapid course development and funding in response to emerging technologies.

The future skills landscape

In recent years, we have noted the political desire to ensure equality between academic and technical routes within education. This theme has been highlighted in speeches by former Prime Ministers Rishi Sunak and Sir Keir Starmer.

*“This will finally deliver on the promise of parity of esteem between academic and technical education.”*  
Rishi Sunak, 2023 Conservative Party Conference speech

*“The ‘academic for my kids; vocational for your kids’ snobbery – has no place in modern society.”*  
Sir Keir Starmer, Breaking Down Barriers speech July 2023

Notably, on assuming office in July 2026, the new Prime Minister, Andy Burnham, used his first few weeks in office to prioritise technical skills and create parity between academic and technical education, announcing that “From today we value the hard hat as much as the graduation cap”<sup>18</sup>

We welcome this debate. Given the scale of the transition needed within the UK, an increased emphasis on technical routes, not just at post-16 but much earlier in the education system, will be vital to meeting future demand.

A key theme that emerged from our interviews was a call for a more responsive skills system. Short modular courses for upskilling the existing workforce and adding onto apprenticeships and T Levels, would provide the flexibility and agility to update courses quickly and create new content for emerging technologies.

To illustrate, artificial intelligence (AI) has seen dramatic advances in recent times. In England, apprenticeship standards are updated and reviewed every 3 years. However, we comment that this process is arduous. The current Heavy Vehicle Maintenance and Repair Technician Level 3 standard has taken over 2 years to update to include electric heavy vehicles. Due to the delays, we observe that current apprentices will need additional battery electric HGV training after completion.

We also comment that, although employers want to help guide government, colleges, universities, and training providers and to talk through job specifics and individual skills, they do not necessarily speak in official educational language. Whilst “employer-led” should mean exactly that, we noted that the trailblazer groups writing apprenticeship standards in England are expected to write the official knowledge, skills and behaviours needed – which, in turn, was burdensome.

**Karen Bailey, Volvo Group:** *“So, what they’ve done at the moment [government] is they said, right, will you lead on the standards? That is the most painful way they could possibly get our input, because it’s the way that involves crafting of language to fit educational norms, and employers don’t want to do that. We want to input into the policy and then have a mechanism for it being delivered. That’s all. We don’t want to be writing standards”.*

Karen also told us that she favours modular, “build-your-own” qualifications that are adaptable to shifting technologies. This was particularly important for the rapidly-evolving AI landscape.

Developing new Apprenticeship Units will provide key short course learning. The Battery Manufacturing Apprenticeship Unit, developed and launched at speed in 2026 in response to the skills needs of a new gigafactory in Somerset, provides a model for swift, agile collaboration among industry, government, and training providers to meet specific needs. This will need to be replicated regularly and be a requirement as part of our call to recognise logistics as an energy-intensive industry within the Industrial Strategy.

Recommendation

More flexible apprenticeship funding, including wider access to short apprenticeship units or short courses for upskilling the existing workforce.

16 Confederation of British Industry, 2023, Reskilling: the talent solution of the future: <https://www.cbi.org.uk/articles/reskilling-the-talent-solution-of-the-future/>

17 <https://www.rha.uk.net/Portals/0/Campaigns/Publications/RHA-Intergenerational-Workforce-White-Paper2025.pdf?ver=0cMNmcrcKpJDbIwtDZoUdQ%3d%3d>

18 See: <https://www.gov.uk/government/news/pm-from-today-britain-will-value-the-hard-hat-as-much-as-the-graduation-cap>



# Conclusion: Turning ambition into delivery

**Decarbonising road transport depends on ensuring we have the right skills in the right places. Technological progress will not become commercially viable without ensuring that the sectors road transport depends on can fully implement the infrastructure required to power the transition to Net Zero.**

Road transport sits within an interconnected system of manufacturers, maintenance providers, energy companies, infrastructure installers, planners, software developers, colleges and training providers. Skills shortages in any part of this system could slow the roll-out of zero-emission vehicles across the sector.

Our research showed that the most urgent pressures are likely to fall on heavy vehicle technicians, electrical engineers and other technical specialists, but the challenge is wider. Drivers will need to understand new technologies and operating practices. Transport planners and depot managers will increasingly manage energy alongside vehicles. Business leaders will need to invest amid technological and policy uncertainty, while procurement, compliance, sustainability and customer-facing roles will require stronger digital confidence.

Digital and green skills must be considered together. Connected vehicles, artificial intelligence, predictive maintenance, energy-management systems and complex operational data will become part of everyday road transport. Technical competence will need to be matched by leadership, communication, problem-solving, adaptability and change-management capability.

These demands come as road transport and related sectors already face ageing workforces and persistent recruitment difficulties. Competition for engineering, electrical and digital talent will intensify as transport, energy, construction and manufacturing all pursue decarbonisation. Waiting until shortages become critical risks higher costs, delayed investment and weaker confidence.

The skills system is not yet responsive enough. Long qualification-development timescales are poorly suited to fast-changing technologies. Apprenticeships remain essential for new entrants, but much of the transition will be delivered by people already in work, who need accessible opportunities to update their skills throughout their careers.

Short, modular and stackable training would help employers respond quickly to emerging needs. Apprenticeship units offer a promising route, provided they are available to foundational sectors such as logistics and not limited to Industrial Strategy priority sectors. The Battery Manufacturing Apprenticeship Unit shows how quickly government, industry and providers can act when a need is clearly identified.

Accessibility is especially important for SMEs, which make up 95% of the logistics and coach sectors. Smaller operators face greater barriers around cost, time, awareness and local availability. A skills policy that does not work for SMEs will not work for road transport.

Devolution can align training with local economies, but it must not create further complexity for businesses operating across regional and national borders. Governments and skills bodies across the UK should support portability, consistency and clear routes for employers to identify and access training.

The RHA is therefore calling for:

- a coordinated UK-wide approach so skills and qualifications can transfer across devolved and regional boundaries
- a regularly reviewed training pathway for road transport decarbonisation, led by DESNZ, with each nation's skills body and industry representation
- a public portfolio of high-quality training resources on zero-emission vehicles, energy systems, digital capability and artificial intelligence
- more flexible apprenticeship funding, including wider access to short apprenticeship units for upskilling the existing workforce
- short, modular courses need to be developed to create “stackable” learning programmes
- a mechanism for rapid course development and funding in response to emerging technologies
- long-term, cross-party policy certainty so employers and training providers can invest with confidence

The transition must be commercially viable, operationally achievable and supported by a workforce capable of delivering it. Government should recognise road transport not simply as a user of new technologies, but as an essential partner in their deployment.

Net Zero will not be delivered by targets alone. It will be delivered in workshops, depots, warehouses, colleges and vehicle cabs across the country. Investment in vehicles and infrastructure must therefore be matched by sustained investment in the people who will operate, maintain and manage them.

# Annex 1: Interview Questions

## Interview Questions (Operators):

### Section 1 – Business Context and Net Zero Journey

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#### Question 1:

Can you briefly describe your operation, fleet size and main activities?

#### Question 2a:

“What low or zero-emission technologies are you currently exploring or deploying? [First Priority]”

- Battery Electric
- Hydrogen
- Alternative Fuels
- Multi-modal solutions
- AI/Digital Optimisation (if so give details).

#### Question 2b:

“What low or zero-emission technologies are you currently exploring or deploying? [Second Priority]”

#### Question 3:

To what extent do skills shortages impact your ability to decarbonise?

### Section 2 – Workforce Skills Challenges

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#### Question 4:

Are there any entirely new roles you expect to emerge over the next 5–10 years?

#### Question 5:

What technical skills do you believe will become most important for the future workforce?

#### Question 6:

How difficult is it to retrain existing staff for emerging vehicle technologies?

#### Question 7a:

What are the biggest barriers to retraining the existing workforce? [First Priority]

- Cost
- Time away from operations
- Age profile of the workforce
- Confidence with digital technology
- Lack of local provision

#### Question 7b:

What are the biggest barriers to retraining the existing workforce? [Second Priority]

### Section 3 – Dependencies on Other Sectors

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#### Question 8:

Which external sectors are most critical to enabling your Net Zero transition/Which other sectors are you looking to emulate or learn from?

#### Question 9:

Have skills shortages in other sectors already affected your ability to decarbonise?

### Section 4 – Soft Skills and Workforce Culture

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#### Question 10:

Beyond technical skills, what soft skills will become increasingly important during the transition?

#### Question 11:

How important are digital literacy and AI capability becoming for transport operations?

#### Question 12:

Are there generational differences in attitudes towards technology and retraining within your workforce?

#### Question 13:

What support is needed to help existing workers adapt to changing technologies and ways of working?

#### Question 14:

How important are leadership and management skills in driving Net Zero transition within businesses?

### Section 5 – Policy and Recommendations

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#### Question 15:

What changes to the skills system would most help your business decarbonise?

#### Question 16:

Are current apprenticeship standards flexible enough to respond to rapidly changing technologies?

#### Question 17:

What role should Skills Bootcamps play in supporting the transition?

#### Question 18:

Is there enough consistency in skills provision across the UK and devolved nations?

#### Question 19:

What funding barriers prevent businesses from investing in green skills?

#### Question 20:

What should Government prioritise over the next five years to support Net Zero skills in road transport?

#### Question 21:

If you could recommend one immediate policy change, what would it be?



## Interview Questions (Third Sector Stakeholders):

### Section 1: Sector Overview

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**Question 1:**

What role does your sector play in enabling transport decarbonisation?

**Question 2:**

How prepared is your sector's workforce for the Net Zero transition?

**Question 3:**

What are the most significant skills shortages currently affecting your sector?

**Question 4:**

Which occupations are expected to see the greatest change over the next decade?

### Section 2: Cross Sector Dependencies

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**Question 5:**

How dependent is transport decarbonisation on your sector successfully scaling up skills capacity?

**Question 6:**

Are there sufficient numbers entering relevant technical professions to meet future demand?

**Question 7:**

What are the key workforce bottlenecks that could slow down road transport decarbonisation?

**Question 8:**

Are there particular regions where skills shortages are especially acute?

**Question 9:**

Do you believe current Government policy adequately recognises the interconnected nature of Net Zero delivery and skills?

**Question 10:**

How effectively are sectors currently collaborating on workforce planning?

### Section 3: Skills System and Training Provision

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**Question 11:**

Are existing education and training pathways aligned with future Net Zero workforce needs?

**Question 12:**

How agile is the current skills system in responding to emerging technologies?

**Question 13:**

Are qualification frameworks adapting quickly enough?

**Question 14:**

What examples of successful retraining or cross-sector transition have you seen?

**Question 15:**

Are there transferable skills that could move more easily between sectors?

**Question 16:**

How can employers and training providers better coordinate future workforce planning?

### Section 4: Technology, Digital and Soft Skills

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**Question 17:**

How important are digital and AI capabilities becoming within your sector?

**Question 18:**

What soft skills will become increasingly important during the transition to Net Zero?

**Question 19:**

Are businesses prepared for the cultural and behavioural changes associated with new technologies?

**Question 20:**

How important is leadership capability in delivering successful transition programs?

### Section 5: Policy and Future Outlook

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**Question 21:**

What policy interventions would most help accelerate green skills development?

**Question 22:**

What role should industry bodies play in shaping future training provision?

**Question 23:**

Are current funding mechanisms fit for purpose?

**Question 24:**

What one recommendation would you make to Government to support the Net Zero skills transition?

**Question 25:**

Is there anything else policymakers or the transport sector should better understand about your sector's role in decarbonisation?

## Annex 2 – Interview Respondents

### Operators

- ATL Haulage
- Welch's Transport
- Graphic Packaging Ltd.
- Swain Group
- Darcica Logistics

### Third sector

- Volvo Group
- Society of Operational Engineers (SOE)
- VEV
- Innovate UK
- UK Warehousing Association





# About The RHA

The RHA is the leading trade association representing over 8,000 road haulage and coach companies across the UK, 85% of whom are small and medium-sized enterprises (SMEs). Our members are operators of vehicles who, between them, operate around 250,000 HGVs (half of the UK fleet) out of 10,000 operating centres and range from a single-truck company to those with thousands of vehicles. The UK road haulage sector is responsible for 81% of all freight movements and is directly involved in the transportation of 98% of agricultural products.

To find out more, please visit: [www.rha.uk.net](http://www.rha.uk.net)

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