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2024

Sector analysis on land transport –
Road and railway

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Executive summary

- This sector analysis on the land transport and transport via pipelines sector (NACE Class H49) accompanies the EURES Report on labour shortages and surpluses 2024. This analysis focuses on the main determinants and causes of labour market imbalances in the air transport sector.
- In 2024, the land transport was made up of approximately 1.06 million enterprises directly employing around 5.78 million individuals. Several EU countries report shortages of operational occupations in the land transport sector, including heavy truck and lorry drivers, bus and tram drivers, motor vehicle mechanics and repairers, locomotive engine drivers, car, taxi, and van drivers, transport conductors. On the other hand, surplus of car, taxi and van drivers are reported more often by EU countries than shortages.
- Women remain significantly underrepresented in the transport sector, especially in operational roles such as truck driving. Issues like safety concerns, inadequate facilities, long working hours, and job insecurity discourage women from entering or staying in the industry.
- Barriers exist to entry in driver professions. The cost of obtaining a truck driving license (C+CE) and professional qualification (CPC) can be very high. For third-country nationals (TCNs), the lack of recognition of foreign certifications adds another layer of complexity. TCN drivers often need to complete local CPC training and exams, incurring additional costs and facing language barriers.
- The rise of online shopping, accelerated by the COVID-19 pandemic, has drastically increased demand for road transport, especially for last-mile delivery services. E-commerce's growth has resulted in higher delivery frequencies, extended transport distances, and more distribution centres, intensifying the demand for drivers.
- The digitalisation and decarbonisation of transport are reshaping workforce needs differently in road and rail. The road sector faces urgent demands for new skills related to the electrification of trucks and buses, as well as digital logistics management. However, the high cost of electric trucks and the slow expansion of charging infrastructure present major obstacles, particularly for smaller road transport companies. In contrast, rail is already further along in digitalisation, with automation, predictive maintenance, and European Rail Traffic Management System (ERTMS) implementation driving demand for a more technologically skilled workforce.
- Both road and railway transport are affected by poor working conditions, including long shifts, insecure contracts and low pay. In the road freight sector, drivers encounter health and safety risks, long hours, poor treatment at delivery sites and a lack of secure and well-equipped rest zones. They are often exposed to dangers like cargo theft, harassment, and aggression. The railway sector faces similar issues, with workers dealing with increased stress, burnout, and high turnover. The surge in aggression towards staff further undermines the attractiveness of the industry.
- In both road and railway sectors, a key challenge is the mismatch between the skills learnt during formal education and those required in practice. In road transport, truck driving training programmes are often outdated, failing to cover modern skills such as eco-driving, defensive driving, or technological advancements in automation. Similarly, in the railway sector, there is a shortage of specialised programmes that combine academic and vocational training to meet the industry's growing demand for digital and sustainable technologies.
- The land transport sector has experienced shifts towards more flexible and cost-saving contractual arrangements. Subcontracting practices have increased in road transport, which includes offshoring transport operations to countries with lower labour costs. This has led to the rise of undeclared work and bogus self-employment where drivers are misclassified as independent workers. In the railway sector, outsourcing and the reliance on temporary work agencies for staff - especially train drivers - have become more prevalent. Workers recruited through these agencies are often excluded from transport sector collective bargaining agreements, resulting in reduced job security and social benefits, and are exposed to longer hours and lower pay.
- Both road and railway transport sectors have implemented various measures to tackle labour shortages, improve working conditions, and address skills gaps. These include recruitment and training programmes to attract younger workers, legislative changes to enhance job appeal, and initiatives to improve gender diversity and worker welfare. Additionally, transnational collaboration and reskilling efforts are helping workers adapt to digitalisation, automation, and evolving industry needs.

1.0 Introduction

This sector analysis accompanies the EURES Report on labour shortages and surpluses 2024, with this year's edition focusing on the transport sector. The purpose of this analysis is to investigate labour market imbalances in the land transport sector, including both road and railway transport, with a particular focus on understanding their determinants and causes.

Based on the NACE classification (Class H49), the road transport sector encompasses urban and suburban passenger transport by various modes, including motor buses, trams, streetcars, trolleybuses, and underground or elevated railways. It also includes taxi services, scheduled long-distance buses, school buses, and employee transport, as well as all freight transport, such as logging, livestock, heavy, and bulk haulage. This sector excludes terminal facility operations for freight handling (Eurostat, 2008). Therefore, the occupations for the road transport sector included in these activities typically are truck drivers for freight transport and bus and coach drivers for passenger transport.

The railway transport sector includes the rail transport of passengers using railroad rolling stock on mainline networks, spread over an extensive geographic area or passenger transport by interurban railways as well as freight transport on mainline rail networks as well as short line freight railroads (Eurostat, 2008). The occupations covered for the railway sector are therefore on-board personnel but also technicians and engineers, excluding hospitality crew.

An overview of the sector is provided in Chapter 2. The labour market imbalances in the road transport were analysed in relation to the following macro topics:

- Influence of sectoral trends on labour market imbalances (Chapter 3)
- Recent global crises: implications for the labour market (Chapter 4)
- Workforce demographic and related issues (Chapter 5)
- Labour migration and mobility (Chapter 6)
- Working conditions and impacts on industry's reputation and the role of social dialogue (Chapter 7)
- Skills and qualifications gaps (Chapter 8)
- Recruitment practices to fill labour and skill gaps (Chapter 9)
- Measures to tackle labour market imbalances (Chapter 10)

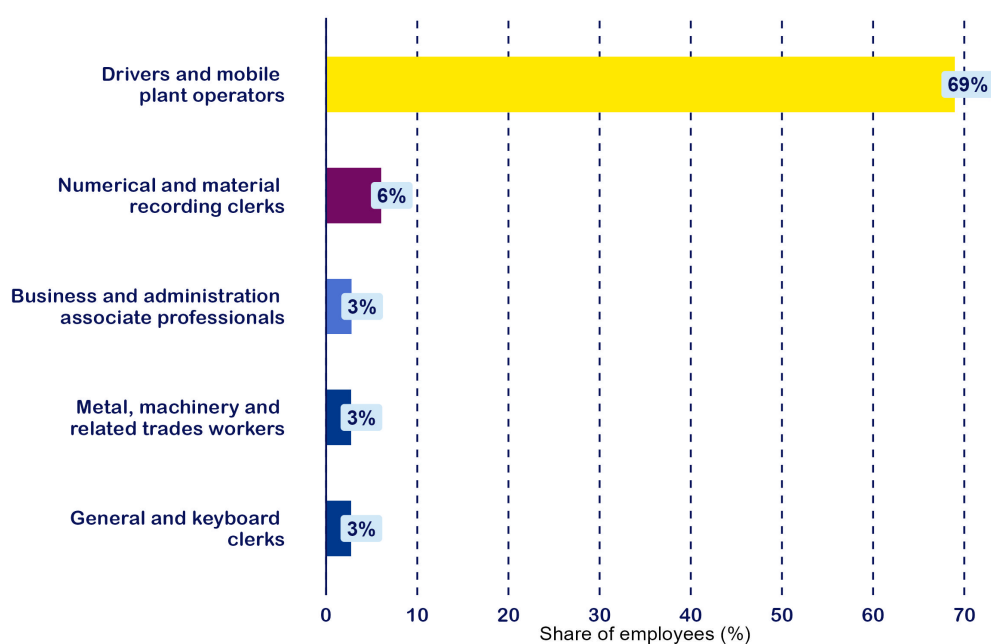
The study draws on a comprehensive literature review conducted at both EU and national levels, supplemented by insights from two focus groups, one on road transport (held on 22 November 2024) and one on rail transport (held on 25 November 2024), comprising key stakeholders, including representatives from trade unions as well as associations representing employers. Further data were provided by EURES National Coordination Offices (NCOs), who identified occupations within the sector experiencing shortages and surpluses. Additionally, Eurostat data were used to highlight key indicators related to workforce profiles.

2.0 Overview of the land transport sector

At the end of 2024, the sector employed 5.78 million people across EURES countries (Eurostat, 2024a). The sector is composed of around 1.06 million enterprises (Eurostat 2024b). Half of employees worked in micro (0-9 employees) or small (10-49 employees) enterprises, (28% and 23% respectively). Meanwhile, 17% were employed in medium enterprises (50-249 employees) and 33% in large enterprises (250 or more employees)¹. Micro enterprises accounted for the majority of businesses, representing 92% of all enterprises (corresponding to 997 856 enterprises) (Eurostat, 2024b). This high proportion reflects the nature of the industry which often consists of small-scale operations such as independent truck drivers, taxi services, and local transport providers.

Figure 1 shows that the biggest share of subsector employment category in land transport are drivers and mobile plant operators, representing 69% of the employees.

Figure 1 – Share of employment represented by the five most common broad occupations in the land transport sector, 2023



Source: Labour Force Survey special extracts.

Table 1 shows the two most prominent occupation categories for shortages are heavy truck and lorry drivers with shortages observed in 21 countries as well bus and tram drivers, reported in 18 countries. The data presented in this table was collected through a survey distributed to the EURES National Coordination Offices (NCOs) of the 27 Member States of the European Union (EU), Iceland, Norway, Switzerland, and Liechtenstein. Each NCO provided information on the match or mismatch status for various occupations. Some of these findings should be interpreted with caution, such as the report of locomotive engine drivers in Malta, as trade unions stakeholders consulted in the focus groups have raised the point that Malta currently has no operational railway system.

¹ Eurostat [sbs_sc_oww]

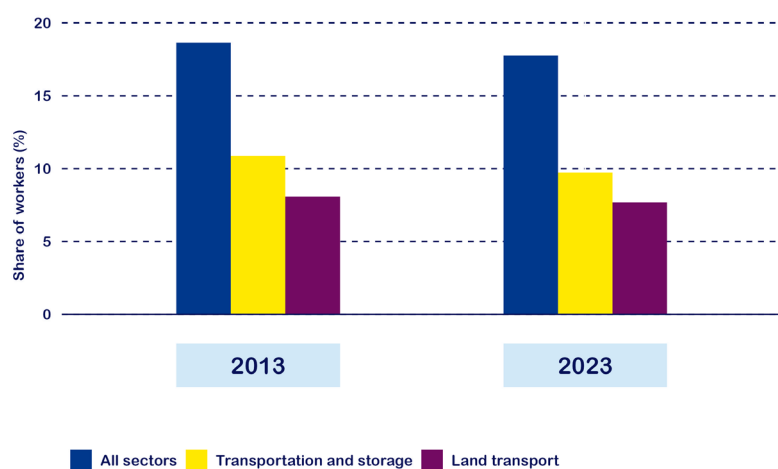
Table 1 - Countries reporting shortages and surpluses for selected land transport occupations, 2024

Occupation	Countries reporting shortages	Countries reporting surpluses
Heavy truck and lorry drivers	21 countries (BE, BG, CY, CZ, DE, DK, FR, HR, IE, IT, LT, LV, MT, NL, NO, PL, RO, SE, SI, SK, PT)	6 countries (EL, ES, FI, LU, AT, PT)
Bus and tram drivers	18 countries (BE, BG, CZ, DE, EE, FR, IE, IT, LT, MT, NL, NO, PL, PT, RO, SE, SI, SK)	4 countries (EL, ES, FI, AT)
Locomotive engine drivers	10 countries (BE, DE, DK, EL, IT, LU, NL, AT, RO, SK)	3 countries (ES, LV, MT))
Car, taxi and van drivers	9 countries (BE, DE, IT, MT, NL, NO, PL, RO, SE)	14 countries (BE, BG, CZ, DK, EL, ES, FI, HU, LT, LU, LV, AT, PT, SK)
Transport conductors	5 countries (CZ, MT, AT, RO, SK)	4 countries (BG, DK, ES, LV)

Source: NCO data. NCOs may report both a shortage and a surplus for a given occupation due to differences at regional level.

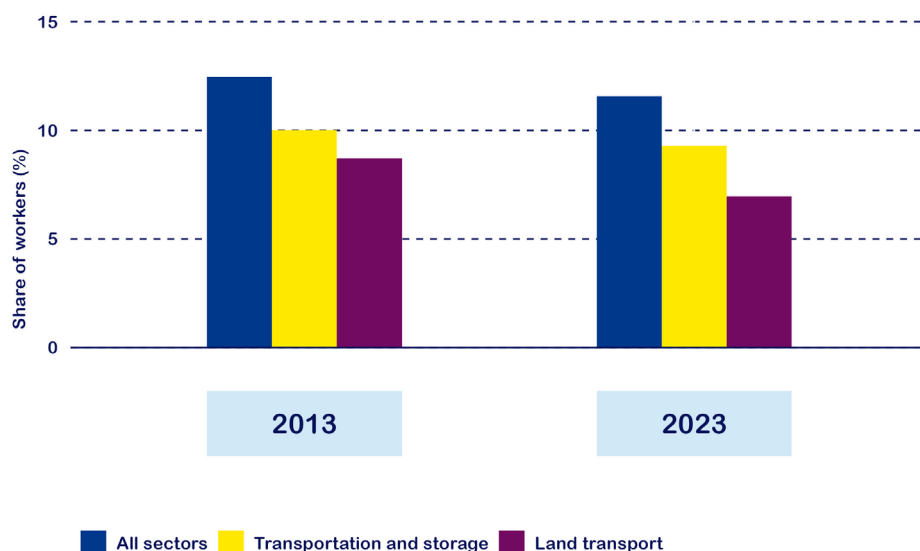
Part-time employment remains significantly higher in the overall economy compared to the transportation and storage sector and land transport (Figure 2). The share of part-time employment in the transportation and storage sector has remained relatively stable between 2013 and 2023, showing only a slight decrease. Part-time employment in land transport has followed a similar trend to the transportation and storage sector, with a slight decline but remaining the least prevalent among the three categories. Figure 3 shows temporary employment follows a similar trend, though the gap between the all-sectors category and the other sectors is smaller.

Figure 2 - Part-time employment in the land transport sector, the transportation and storage sector and the overall economy in the EU-27, 2013 and 2023



Source: Eurostat. Labour Force Survey special extractions.

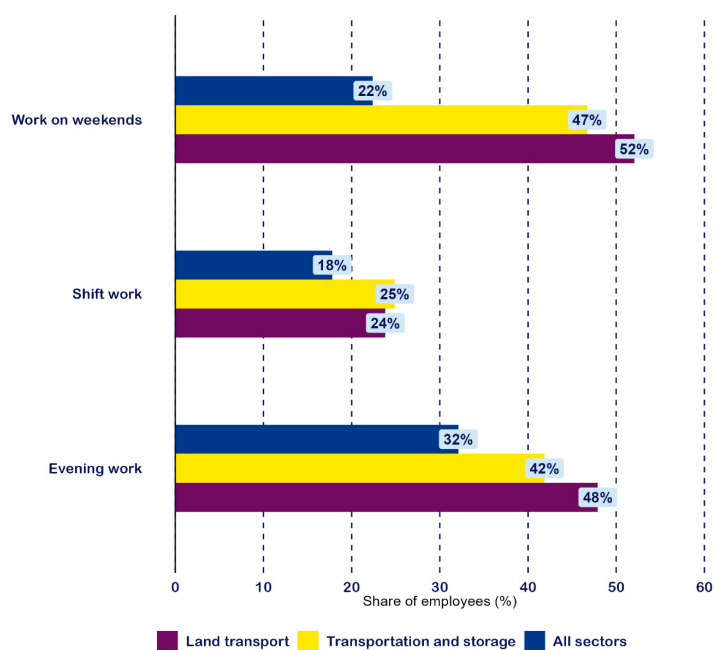
Figure 3 - Temporary employment in the land transport sector, the transportation and storage sector and the overall economy in the EU-27, 2013 and 2023



Source: Eurostat. Labour Force Survey special extractions.

Figure 4 shows that, compared to all sectors and to the broader transportation and storage sector, the share of non-standard work schedules in the land transport sector is greater. More specifically, the greatest differences are in work on weekends (52% in land transport compared to 46% in transportation and storage and 22% in all sectors) and evening work (46% in land transport compared to 42% in transportation and storage and 32% in all sectors).

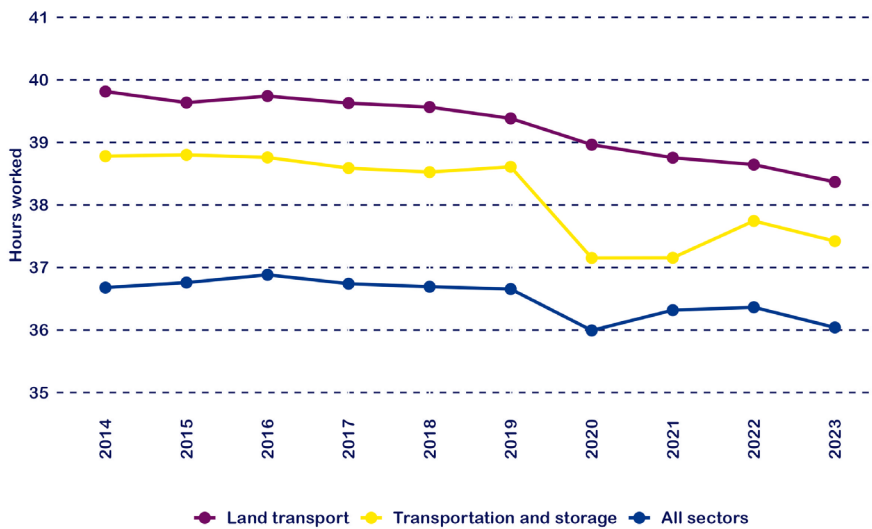
Figure 4 - Non-standard work schedules in the land transport sub-sector, the transportation and storage sector, and the overall economy in the EU-27, 2023



Source: Eurostat. Labour Force Survey special extractions

Even if the number of working hours per week has decreased by one point five hours between 2014 and 2023, working hours in the land transport sector remain higher by one hour than in the broader transportation and storage sector and by more than two hours per week compared to other sectors (Figure 5).

Figure 5 - Hours worked per week in in the land transport sector, the transportation and storage sector, and the overall economy in the EU-27, 2014 - 2023



Source: Eurostat. Labour Force Survey special extractions

3.0 Influence of sectoral trends on labour market imbalances

Key determinants of labour market imbalances in relation to sectoral trends:

Road:

- Labour shortages are driven by economic fluctuations and sector liberalisation, affecting demand for drivers and operational costs.
- An ageing workforce and limited recruitment of younger workers contribute to aggravating drivers' shortage.
- New regulations (e.g., Mobility Package 2), while improving working conditions, may increase costs and reduce the available pool of drivers in the short term.
- The shift to electric vehicles and digital technologies requires skilled workers, but high costs and limited infrastructure are slowing the progress.
- The surge in online shopping has escalated the demand for delivery services, exacerbating labour shortages.
- Liberalisation of road passenger transport adds pressure by increasing competition for the same pool of drivers.

Railway:

- The opening of rail markets to competition increases the need for specialised skills.
- Achieving EU decarbonisation goals, including doubling rail freight and high-speed rail traffic, requires a skilled and expanded workforce.
- Divergent national policies and frameworks create barriers to job creation and workforce mobility, hindering the sector's ability to meet rising labour demand.

3.1 Road transport

Road freight transport: economic fluctuations and rising operational costs

In the road freight sector in 2023, 7% of truck driver positions in Europe remained vacant, with 233 000 unfilled jobs (IRU, 2024). Although the driver shortage eased slightly from the previous year due to reduced demand for road freight - driven by inflation and tighter monetary policies affecting consumption and investment - the issue persists as a structural problem. A significant 62% of European trucking companies report facing severe or very severe challenges in recruiting drivers. The 2028 forecast for truck driver shortages is even more concerning with the share of unfilled positions expected to attain 17%, exceeding the double of the current driver shortage share. This forecast is based on the expected growth of road freight demand as well as on the ageing workforce in the sector, with 15% of the current workforce going into retirement by 2028 and a very low share of young employees, with currently only 5% of the truck driver workforce below 25 years old in Europe (IRU, 2024).

The demand for truck drivers is influenced by shifts in goods' demand, rising during periods of economic growth and declining during economic downturns. This unpredictability presents a significant challenge for recruitment, requiring new strategies (Gaines, 2024). The IRU's Driver Shortage Report 2023 on Road Freight underlines the increase of the costs for trucking companies related to fuel, salaries and vehicle costs as well as the additional investments related to environmental objectives (IRU, 2024). The Russian aggression in Ukraine and its impact on the rise of fuel prices as well as 'persistent inflation and tight financial conditions' are impacting both consumption and investment, leading to the stagnation of road freight volume (IRU, 2024).

At the same time, inflation coupled with driver shortages resulted in the increase of drivers' salaries, further raising the costs for European trucking companies. Average truck driver salaries range from 30-135% higher than the base cost of living (IRU, 2025b). The situation in France, for example, where 'the total driver cost of a long-distance driver increased by 15.4% between January 2022 and January 2023 (+16% for regional transport drivers)' illustrates this peak in labour costs (IRU, 2024). The report states that in Europe, over two-thirds of transport companies' costs come from drivers' salaries and fuel expenses. Inflation, along with supply chain problems and higher labour costs has also increased costs of vehicle maintenance and repair (IRU, 2024).

The surge of online shopping - driven by new consumer habits shaped by the COVID-19 pandemic – is another economic trend that has increased the demand for drivers (Campisi et al., 2023). The rapid expansion of e-commerce has resulted in higher delivery frequencies and extended transport distances, requiring the establishment of new distribution centres and an increased reliance on road transport, with a particular emphasis on last-mile delivery. The demand for drivers has intensified as logistics companies sought to fulfill the growing need for efficient parcel deliveries across both urban and rural areas. With the shift toward faster delivery options, such as next-day services, chosen by 32% of EU shoppers in 2021, companies found themselves under pressure to recruit and retain drivers to meet consumer expectations (Gierteka, 2022).

Platform work, facilitated by digital platforms connecting workers with tasks, is increasingly influencing the land transport industry amid ongoing labour shortages. In the sector, companies like Uber Freight and various on-demand delivery services have introduced flexible working arrangements, attracting a diverse workforce, including those seeking gig-based opportunities. This model offers a partial solution to driver shortages by providing low-barrier entry opportunities and adaptable working conditions (Uber Freight, 2019). Regulation is increasingly important in this sector as social partners raise issues of declining labour rights (ITF, 2024),

Road passenger transport: sector liberalisation and driver shortages

The bus and coach transport sector in Europe is also facing a significant driver shortage, with 105 000 positions unfilled in 2023, making up 10% of the total workforce. This shortage has increased by 54% since 2021, and over 82% of road passenger companies report severe or very severe difficulties in recruiting drivers (IRU, 2023a).

The shortage of drivers in public transport has social and environmental impact. In some regions, public transport services are already being disrupted due to the lack of available drivers, with lines being discontinued in countries like Austria and Italy and Germany (VDV, 2024). The suspension of public transport services is mostly affecting rural areas in the EU (ETF & WMP Consult, 2023). This shortage actively threatens Europe's environmental goals and the EU Green Deal, slowing down the shift from private car use to collective and active passenger mobility, a crucial factor for reducing CO₂ emissions (IRU, 2023a).

The liberalisation of long-distance bus services has further intensified competition for drivers across the transport sector. Innovative 'last mile' delivery services and new entrants in the mobility market have not alleviated the shortage. Instead, companies like Berlin's BVG, long-distance bus operators, and services such as Liefery are competing for the same limited pool of drivers (Hempfling and Schwemmer, 2019).

Looking ahead, the situation is expected to worsen, with the shortage of bus and coach drivers forecasted to more than double by 2028, just like in road freight transport. Without significant action to attract and retain drivers, Europe could have more than 275 000 unfilled positions by the end of the decade (IRU, 2023a).

Impacts of regulations on labour costs in transport

Regulations which aim at improving workers' conditions can also have a negative impact on labour market imbalances. The Mobility Package 2 has brought significant regulatory changes, including replacing net daily allowances for drivers with a higher gross salary. This adjustment means that a substantial portion of drivers' wages - approximately 65% - is now subject to social taxation, resulting in a marked 24% rise in wage costs for transport companies (Geba Trans, 2022). Since the implementation of the Equal Pay Directive (2006/54/EC), reports from Polish carriers indicate price hikes ranging between 10% and 15%, with further increases anticipated (Geba Trans, 2022). Although some companies are seeing their costs increase, the Court of Justice of the European Union considers these rules and costs as proportionate to the objective pursued (Court of Justice of the European Union, 2024). These rules are more likely to affect businesses offering most of their services to clients in Member States far from where they are based.

Additionally, as of 21 February 2022, the introduction of the 'Return-to-home' requirement within the Mobility Package 2 mandates that Eastern European drivers and vehicles return to their home country every eight weeks. While aimed at improving working conditions, this measure has exacerbated existing transport capacity challenges by further reducing the already limited pool of available drivers, increasing logistical costs and delays, and adding pressure on the supply chain. Additionally, the requirement clashes with climate goals, as it leads to more empty miles² and higher emissions, undermining efforts toward sustainability (Geba Trans, 2022).

Another regulation contributing to rising costs is the Eurovignette revision, which increased the toll rates³ depending on the emission class of the vehicle (IRU, 2024). These regulations are expected to further intensify cost pressures across the European road freight sector.

Greening and digitalisation

Stakeholders consulted through the focus group on road transport conducted for this study highlighted the challenges of greening and digitalisation in the road transport sector. The move towards decarbonisation and the adoption of electric vehicles emerged as key topic of discussion. While there was a broad agreement on the importance of electric vehicles in reducing emissions and meeting European environmental goals, participants noted that their adoption is hindered by their high costs. Electric trucks and buses are seen significantly more expensive than traditional diesel vehicles, making them financially inaccessible for many transport companies, especially smaller ones. The infrastructure needed to support electric vehicles, such as charging stations, was also a key concern. Stakeholders pointed out that this infrastructure remains underdeveloped, particularly in urban areas. For example, in cities like Paris and Amsterdam, restrictions on vehicle parking further complicate the adoption of electric buses and trucks, especially when drivers are forced to take rest breaks but cannot find suitable parking spaces. Another challenge reported during the focus group relates to the long recharging times for electric vehicles, as this disrupts the tight schedules of long-haul transport operations, adding to the logistical difficulties companies already face.

Discussion around gender disparities and the ageing workforce revealed further challenges. Stakeholders emphasised that the long working hours and the lack of suitable infrastructure, such as separate rest areas for women, make the occupation less appealing to women. However, some companies are beginning to implement more family-friendly policies, such as allowing couples to drive together, to help attract more women into the profession. Still, the sector remains predominantly male.

Focus group discussion revealed that attracting young workers to the transport sector is also a challenge. The average age of truck drivers in Europe is high, with many countries facing an ageing workforce. For instance, in Portugal, the average age of truck drivers is 55, and the sector is seeing very few young people entering the profession. The shift towards new technologies, such as electric vehicles and smart tools (e.g., smart tachographs, holographs for controls of the traffic), could make the sector more appealing to younger workers. However, this is only possible if there are clear pathways for training, career development, and work-life balance, which are not always available. Additionally, the stringent legislation, such as the minimum driving age, has created an extra hurdle for attracting young talent. While some recent changes now allow drivers from the age of 18, the transition is still slow.

3.2 Railway transport

Market opening and workforce adaptation

² Empty miles refer to the distance travelled by a vehicle while it is empty and not generating revenue (PENSKE).

The railway sector in Europe is undergoing significant shifts driven by policy, market dynamics, and sustainability objectives, resulting in notable trends that influence labour market imbalances. A central development has been the progressive opening of rail markets to competition. In the rail freight market, new entrants' market share rose from 35% in 2015 to 46% in 2020, with COVID-19 having little impact on this trend (European Commission, 2023b). Similarly, in passenger services, liberalisation has facilitated the entry of new operators, accounting for 6.6% of commercial passenger rail services and 18.5% of national Public Service Obligation (PSO) passenger markets as of 2020 (European Commission, 2024).

The liberalisation of rail freight, supported by initiatives like the European Rail Freight Corridors (ERFCs), is a key driver of labour specialisation. This shift fuels growing demand for expertise in intermodal logistics, freight handling, and international operations. While enhancing competition among operators, rail freight liberalisation also aligns with EU goals to reduce road congestion and encourage sustainable transport (European Commission: Directorate-General for Mobility and Transport, 2024b). Although the EU aimed for liberalisation to create a modal shift from road to rail, a recent study found that railways are losing market share due to the strong increase in demand for road transport (European Commission: Directorate-General for Mobility and Transport et al., 2024). Although the volume of freight rail goods has increased, the share of rail in total freight transport has decreased since 1995 (ETF, 2023c). Since the start of competition, the demand for rail has been either stagnating or increasing slightly. The European Commission maintains that the perspective of the full liberalisation of passenger services by 2030 is expected to create roles requiring specialised skills in competitive tendering, customer service, and innovative operational methods (European Commission: Directorate-General for Mobility and Transport, 2024b).

Many related challenges remain. Market liberalisation across Member States is uneven, with some retaining significant public sector dominance and national monopolies. These disparities, coupled with inconsistent regulatory frameworks, can limit job creation and restrict labour mobility in the sector (European Commission: Directorate-General for Mobility and Transport, 2024b). To tackle these issues, the European Union advocates for harmonised standards and fair competition across the bloc, which may prompt shifts from public to private employment and require workforce adaptation (European Commission: Directorate-General for Mobility and Transport, 2024b).

Role of the railway sector for decarbonisation

The railway sector's important contribution to the European Green Deal underscores the need for workforce expansion and transformation. With goals to double high-speed rail traffic by 2030 and rail freight by 2050, the sector plays an essential role in achieving the 90% reduction goal in transport-related carbon emissions by mid-century. However, labour trends reflect mixed progress. Employment grew strongly in some countries like France and Germany and more moderately in Austria, Belgium, Sweden, and Norway between 2015 and 2020, but stagnated or declined in the majority of the Member States during the same period (Broughton et al., 2024). This imbalance highlights the interplay between demographic, digitalisation, and decarbonisation trends and the importance of addressing the workforce's evolving needs.

Consulted stakeholders highlighted the challenges linked to ambitious goals of the European Green Deal, particularly its emphasis on shifting more passengers and freight to rail transport as key strategy for reducing carbon emissions. They noted that while this transition is crucial, it is hindered by persistent staffing shortages across the sector. According to stakeholders, the growing push for green technologies - such as the electrification of rail lines powered by renewable energy - requires an adequate workforce to maintain and operate the infrastructure. Without sufficient personnel, the potential of green technologies cannot be fully realised, and the environmental benefits of the transition to rail transport may not be achieved.

Furthermore, digitalisation was also flagged as a significant challenge by stakeholders. They expressed optimism about the potential of digital technologies to improve safety and efficiency, such as in the use of automated systems for freight transport or the potential for smart technologies to reduce the physical strain on workers. However, they noted that introducing these technologies on a large scale across Europe depends on having a skilled workforce that can effectively operate and maintain them.

4.0 Recent global crises: implications for the labour market

Key determinants of labour market imbalances in relation the recent global crises:

COVID-19 pandemic:

- Lockdowns paused driver training programmes and hiring processes, reducing the entry of new workers into sectors.
- Health concerns prompted older workers, particularly in road freight, to leave the profession or retire early, exacerbating pre-existing shortages.
- Workers transitioned to other industries during the pandemic, particularly in passenger transport, due to lack of job stability and alternative employment opportunities.
- Increased aggression toward rail workers led to higher sick leave among workers and safety concerns.
- Delayed maintenance during lockdowns strained rail infrastructure and equipment, increasing operational demands on an already stretched workforce.

Russia's war of aggression against Ukraine:

- Ukrainian drivers, a vital part of the trucking workforce in Central Europe, were required to return home for military service, exacerbating shortages in certain countries.
- The war led to soaring diesel prices, increasing operational costs and limiting financial resources for hiring and retaining drivers.
- The closure of Russian transit routes forced freight companies to use more complex middle corridors, adding logistical and labour demand.

Lingering impacts of the COVID-19 pandemic on the labour market

Road transport

In road freight, the immediate effects of the pandemic were evident in the form of reduced freight demand during lockdowns and significant disruption to training programmes for new drivers, slowing the influx of talent into the industry (Loughran, 2024). While the sector rebounded faster than passenger transport, with a swift recovery of 5% in 2021 after a 4% decline in 2020 (European Commission: Directorate-General for Mobility and Transport, 2024b), labour shortages have worsened. The pandemic exacerbated the challenges linked to the ageing of the workforce, with many drivers opting for early retirement or leaving the profession due to health concerns, further increasing the shortage of truck drivers that had been an ongoing issue pre-pandemic (Loughran, 2024).

Road passenger transport dropped by 27% in 2020, with a slow recovery in 2021 as demand gradually picked up (European Commission: Directorate-General for Mobility and Transport, 2024b). However, the bus and coach sectors saw a sharp rise in demand post-COVID-19, driven by increased interest in shared passenger transport as restrictions eased. The IRU (2023a) reported a 10% growth in road passenger transport revenues from 2021 to 2023, but this spike in demand exerted an additional pressure on an already strained workforce. While the sector is expanding, the industry faces significant challenges in filling positions, aggravating the problem of reduced service availability. The post-COVID-19 boom in demand is expected to continue, but without concerted action to attract and retain drivers, the sector is threatened by long-term labour shortages (IRU, 2023a).

As also highlighted by stakeholders during the focus group, the pandemic exacerbated existing labour shortages. For instance, the Spanish coach industry, already struggling with driver shortages before the pandemic, faced a sharp decline in demand due to mobility restrictions. With no jobs available, many drivers left the sector in search of alternative employment, compounding the shortage once demand for services rebounded. Stakeholders from Romania and Finland echoed similar observations. The pandemic disrupted labour supply in transport and logistics by driving workers toward other sectors which expanded during this period and offered more attractive opportunities. In Finland, this disruption created localised imbalances, with surpluses in rural areas and acute shortages in urban centres.

The long-term consequences of the pandemic include a reduced workforce, a declining interest from younger generations, and persistent logistical challenges in meeting growing demand for public transport and freight services. Stakeholders emphasised that addressing these issues will require targeted efforts to rebuild the workforce and enhance the appeal of transport sector jobs to ensure resilience against future disruptions.

Railway transport

The railway sector also faced challenges during the pandemic, which enhanced the urgency of replacing an ageing workforce and countering the declining appeal of the profession (European Commission: Directorate-General for Mobility and Transport, 2024a). The pandemic amplified these issues, as it not only heightened the preference for work-life balance but also provoked an increase in mental health and safety concerns among rail workers. The rise of violence against railway staff, with the example of incidents which more than doubled since 2020 reported by the Belgian SNCB (The Brussels Times, 2021) and still persist to these days (The Brussels Times, 2024), is a key example of the worsening working environment for railway staff since the pandemic. This issue was also discussed in the focus group on railway transport, where stakeholders underlined how the pandemic contributed to rising aggression against railway staff, exacerbating tensions and creating a more challenging and unsafe working environment.

Consulted stakeholders highlighted a rise in aggression towards railway workers, adversely affecting their physical and mental well-being and leading to more frequent sick leave. The pandemic also disrupted recruitment processes, with hiring freezes exacerbating staff shortages. In Spain, these shortages have made it particularly challenging to find and retain workers for critical roles, such as train drivers and station staff, leading to service reductions (for instance, direct train connections between Madrid and Lisbon have not been reinstated).

Operational disruptions and financial challenges during the pandemic were especially severe for private operators, which suffered significant revenue losses due to declining passenger numbers. Stakeholders in Belgium and Germany, for example, reported that these impacts underscored the vulnerability of the private sector and the indispensable role of public operators in maintaining essential services. Moreover, consulted stakeholders highlighted the lingering effects of the pandemic, noting that lock-down measures delayed maintenance of infrastructure and equipment. This has created significant unresolved maintenance issues that are still being in the process to be addressed.

Russia's war of aggression against Ukraine

Road transport

Russia's war of aggression against Ukraine has disrupted labour availability, particularly due to the central role of Ukrainian nationals in the European trucking workforce, and has contributed to elevated fuel costs, further straining operators (IRU, 2024a).

Ukrainian nationals have been a vital part of the trucking workforce in Central Europe, with around 7% of truck drivers in Germany and a significant portion in Poland being Ukrainian. However, the Russian aggression has completely disrupted this labour dynamic, as Ukrainian men aged 18 to 60 years are required to join the military service. This led to nearly 20 000 drivers returning to their home country, considerably worsening the existing driver shortage across Europe (Shchedrina, 2022).

Especially Polish transport companies, which employ around 100 000 Ukrainian workers out of a total of 502 000 employees in the road freight sector in 2021 (Statista, 2024) have been significantly affected. Trucks from Poland also account for more than 17% of the miles travelled by drivers in Germany, a country already struggling with a deficit of over 70 000 professional drivers before the war (Shchedrina, 2022), with the road freight transport employing about 412 000 people in Germany in 2020 (Comité National Routier, 2021). Furthermore, earlier migration programmes that allowed Ukrainian nationals to work in the EU were stopped in 2020 due to the COVID-19 pandemic, contributing to the shrinking of the workforce (Eurofound, 2021).

The war has also exacerbated cost pressures for road transport operators, primarily through surging fuel prices. The price of diesel, a key cost factor for trucking operations, rose significantly as an immediate consequence of the conflict. Although prices have declined since their 2022 peak, diesel remains 10% more expensive than pre-war levels (IRU, 2023a). This increase, compounded by heightened driver costs, has strained the financial stability of many operators, further complicating their ability to respond to labour shortages and meet service demands.

Railway transport

The conflict has disrupted the EU railway sector in several ways. Freight companies have shifted from the traditional route through Russia to the 'middle corridor' via Azerbaijan and Georgia, increasing costs and logistical complexity. The closure of key routes has affected trade flows, particularly in container traffic, and created delays in supply chains. The need for rerouting and extra services has raised operational costs, while investment focus has shifted towards alternative infrastructure outside the EU (European Parliament, 2022).

Additionally, rail companies are running more humanitarian and refugee transport services, adding strain to the system. Stakeholders consulted in the focus group on the railway sector commented that in Germany, for example, the railways are playing a significant role in providing humanitarian support during the war, creating logistical bridges for delivering aid to Ukraine and helping refugees travel to Germany. The railway sector has been flexible, running extra trains and engaging more staff, often working beyond regular hours, driven by a willingness to help.

5.0 Workforce demographic and related issues

Key determinants of labour market imbalances in relation to workforce demographic:

- The land transport sector faces an ageing workforce, with retirements outpacing the entry of younger workers; Long working hours, job insecurity, and challenging working conditions make the sector less attractive to potential recruits, particularly younger candidates.
- Women are underrepresented due to systemic barriers such as gender segregation, safety concerns, inadequate facilities, demanding work conditions, and limited work-life balance.

Women remain underrepresented across all areas of the transport sector, including piloting, planning, management, and innovation (Policy Department for Citizens' Rights and Constitutional Affairs et al., 2021). In fact, persistent labour shortages in the EU are generally more common in sectors with low female participation, where gender segregation limits the talent pool and exacerbates workforce deficits (European Commission, 2023a).

As seen in Figure 6, in Q4 2024, 15.5% of workers in the land transport sector were women, while women represent 46% of the workforce in the EU (European Parliament, 2024). Women represent only 3% of the truck driver workforce, despite high female unemployment rates in countries like Spain (14.8%) and Italy (9.4%) (IRU, 2024). Women comprise just 21% of the rail workforce, with lower representation in operational roles like train driving. In countries like Ireland, women account for only 9% of the workforce, while Estonia stands out with a higher female representation, at 51% (CER and ETF, 2022). The 2021 'Women in Rail'⁴ agreement introduced binding gender equity targets across the EU (Broughton et al., 2024).

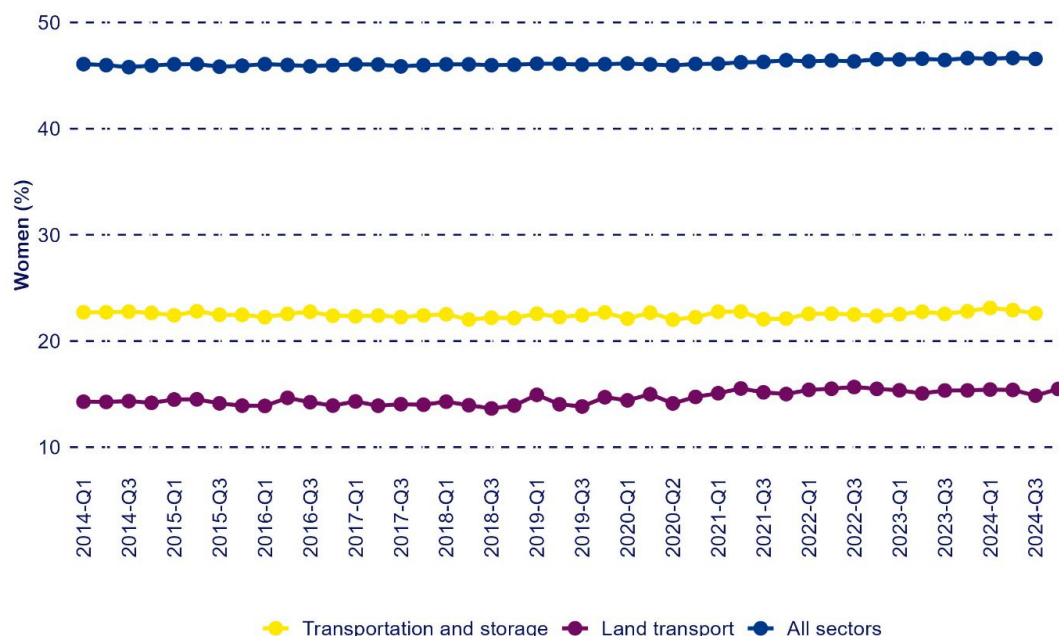
This disparity suggests systemic barriers, such as safety concerns and inadequate sanitary facilities, which disproportionately affect women (European Parliament, 2023a and European Commission. Directorate General for Mobility and Transport, et al., 2019). Consulted stakeholders in the road sector outlined that the poor resting facilities represent an important obstacle to improve female representation. Poorly equipped resting facilities are a significant obstacle, with 95% of truck drivers and 94% of transport companies identifying security improvements as critical. Only 3% of EU truck parking areas are certified secure, with over 90% of female drivers prioritising better safety and rest zones (IRU, 2024).

Further, stakeholders highlighted that long working hours, job insecurity, and the need for a better work-life balance are also factors discouraging women from entering or staying in the road sector. The nature of long-distance transport, which often requires drivers to be away from home for extended periods, is particularly unappealing to many women (IRU, 2024).

Stakeholders consulted through the rail sector focus group highlighted additional barriers, relevant to both fields including the male-dominated work environments, inadequate safety equipment designed for women, insufficient rest facilities, and the physically demanding nature of many roles. In both sectors, women are more often employed in administrative roles rather than operational positions, further perpetuating gender imbalances through lack of representation.

⁴ [European Social Partner Agreement on Women in Rail](#)

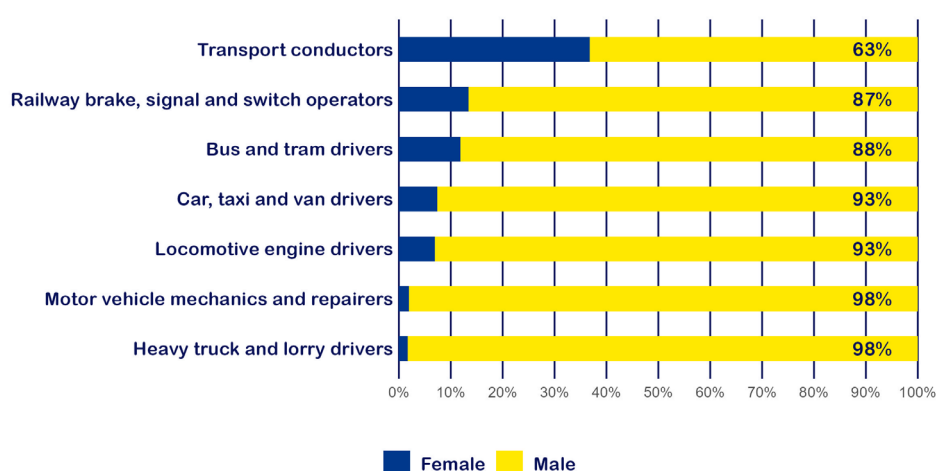
Figure 6 - Share of female employment in the land transport sector, the transport and storage sector and the overall economy in the EU-27, 2014 – Q2 to 2024 – Q4



Source: Eurostat [lfsq_egan2, lfsq_egan22d]

As seen in Figure 7, disparities can be observed consistently across transport occupations. For example, 93% of locomotive drivers and 93% of car, taxi and van drivers are men. Among widespread shortages occupations, 98% of heavy truck and lorry drivers or motor vehicle mechanics and repairers are men, while only 12% of bus and tram drivers are women.

Figure 7 - Share of women in selected land transport occupations, in the EU-27, 2023



Source: European Labour Force Survey special data extracts.

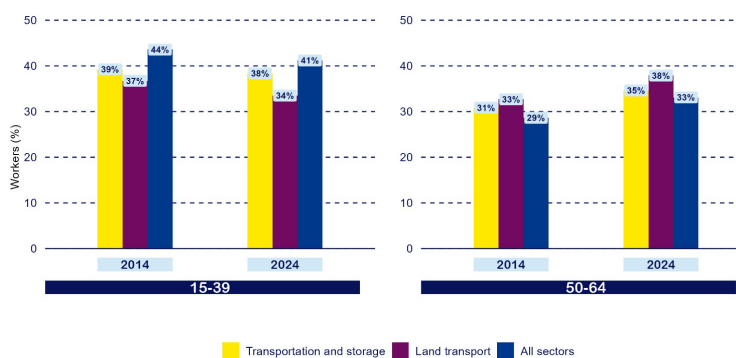
Another demographic challenge in the land transport industry is the higher proportion of older workers compared to the rest of the economy and a workforce ageing more rapidly than in other sectors. In 2024, workers aged 50 to 64 years made up 38% of land transport sector workers, that is five percentage points more than on average in the wider economy (Figure 8). Conversely, the share of workers aged 15 to 39 years stood at 34%, seven percentage points below the all-sector average. This represents a gap of four percentage points favouring older workers over younger. This is indicative of an older workforce that is insufficiently replaced by younger cohorts of workers.

This trend is especially concerning among bus and tram drivers as well as heavy truck and lorry drivers, two occupations experiencing widespread shortages. The average age of truck drivers in the EU is the highest in the world (Expert Group for Urban Mobility, 2024). This is likely to further aggravate labour shortages as these workers will retire within the next 15 years, and there are not enough young workers to replace them. In road transport, less than 5% of truck drivers are younger than 25 years (IRU, 2024). For instance, in Spain, where youth unemployment is at 30%, only 4.5% of truck drivers are under 25 years, underscoring the profession's limited appeal to younger audiences (IRU, 2024). Participants in the focus group noted that the average age of drivers is high across Europe – for example, for bus and coach drivers 49 years in Finland and 51 years in Spain. This demographic crisis is particularly acute in the public transport sector. In Italy, nearly a third of drivers are over 55 years old, while only a small fraction, just 2%, are under 25 (Expert Group for Urban Mobility, 2024). In Germany, around one third of all public transport workers are expected to retire by 2030 (VDV, 2024). According to an analysis by the McKinsey Global Institute, Europe's working-age population is expected to decrease by about 13.5 million people, or 4 percent, by the end of this decade (Expert Group for Urban Mobility, 2024). This demographic change is especially significant in countries like Germany (nearly 8 percent, or around 4 million people), Italy (almost 7 percent, or about 2.5 million people), and Poland (9 percent, or approximately 2.3 million people). At the same time, labour market imbalances in the EU-27 show a declining proportion of individuals aged 15 to 24, a vital segment of the future workforce. This reduction, particularly in countries with decreasing populations, presents major challenges in addressing the shortage of skilled workers across various sectors (Expert Group for Urban Mobility, 2024).

The railway sector similarly faces an ageing workforce, with 42.4% of employees over 50 years old in 2018, compared to 40.2% in 2015. Younger workers (under 30 years) represent only 10.6% of the workforce, also leaving the sector vulnerable to a retirement-driven labour shortage in the coming decade (CER and ETF, 2022; Broughton et al., 2024).

Stakeholders participating in the focus group on the railway sector clearly observe that young people across countries are not attracted to the industry anymore due to a change in the sector's reputation. Stakeholders from Czechia stated youth view the industry as outdated. Reputational issues are very context dependent, as some rare countries like Spain have managed to turn it around by offering good working conditions and collective agreements. They emphasised a pressing need for education and training in technical fields, such as maintenance engineering and technician roles, which require extensive education and experience. Participants from Bulgaria reported that these positions are consistently underfilled, which compounds staffing shortages.

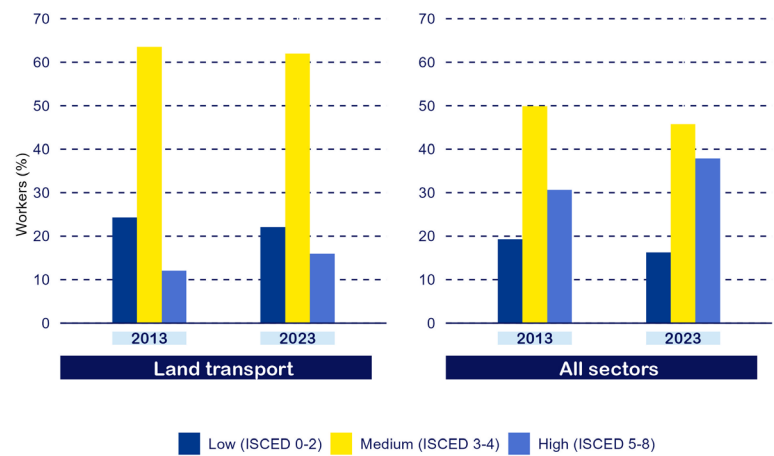
Figure 8 - Employment age structure in the land transport sector, the transport and storage sector and the overall economy in the EU-27, 2014 and 2024



Source: Eurostat [lfsq_egan2, lfsq_egan22d]

Figure 9 compares the educational attainment levels of workers in land transport. The share of workers with low educational attainment (ISCED 0-2) remained high at around 25% in both 2013 and 2023, while workers with medium-level education (ISCED 3-4) dominate the land transport sector, accounting for over 60% in both years.

Figure 9 - Education structure in the land transport sector, and the overall economy in the EU-27, 2013 and 2023



Source: Labour Force Survey special extracts

6.0 Labour migration and mobility

Key determinants of labour market imbalances in relation to labour migration and mobility:

- Non-EU citizens face difficulties having their qualifications recognised in the EU. Driver qualification in the EU requires costly and time-consuming training and exams in the local language.
- The lengthy and complex processes for obtaining work permits and licenses for TCNs slow down recruitment and exacerbate labour shortages.
- The 2004 EU expansion shifted international road transport eastward, making Poland, Lithuania, Hungary, and Romania major players due to lower labour costs.
- Wage disparities between Eastern and Western Europe have led to social dumping, with companies hiring lower-paid drivers from Eastern Europe to reduce costs.

The road freight transport sector in the EU heavily relies on TCNs, especially in Central and Eastern Europe. This is reflected in the significant rise in driver attestations⁵ issued to TCNs, which increased from 28 059 in 2012 to 212 394 in 2022 (European Commission: Directorate-General for Mobility and Transport, 2024a). However, the lack of recognition of professional qualifications and driving licenses from third countries continues to pose significant barriers and to slow recruitment processes. Drivers from non-EU countries must often complete Certificate of Professional Competence (CPC) training and exams in an EU Member State, usually in the local language (IRU, 2024). This challenge is not unique to the land transport sector seeing as many other professions require European recognition of qualifications (European Commission, 2025). Nevertheless, this generates additional costs for the drivers and exacerbates language-related challenges, while the lack of harmonisation in the recognition of third country driving licenses adds further complexity (IRU, 2024). These challenges significantly affect Member States like Poland, Lithuania, and Estonia, where TCNs make up 30% of the truck-driving workforce (IRU, 2024).

In the bus and coach sector, the participation of TCNs is much lower, with only 5% of the workforce being foreign (IRU, 2023a). Structural factors, such as limited efforts to harmonise qualifications and licensing systems, hinder the access of non-EU nationals to this sector. Establishing an EU framework to standardise the recognition and acceptance of these qualifications would enhance workforce mobility and flexibility across the EU (European Commission: Directorate-General for Mobility and Transport, 2024a).

Related bureaucratic hurdles contribute to complicating the processes of hiring foreign professionals and refugees (Hempfling and Schwemmer, 2019). In countries like Sweden, the language requirements for certifications hinder non-native speakers from entering the transport sector, such as the Yrkeskompetensbevis, that is required for driving both trucks and bus (Trafikverket, 2023).

⁵ 'This is a uniform document certifying that the driver of a vehicle carrying out road haulage operations between Member States is either lawfully employed by the EU transport operator concerned in the Member State in which the operator is established, or lawfully placed at the disposal of that operator. Thus, this document is needed for those drivers who are not a national or a long-term resident of an EU Member State' (European Commission: Directorate-General for Mobility and Transport, 2024a).

Consulted stakeholders underlined the bureaucratic challenges TCNs face when trying to access the labour market. In Spain, for example, the bureaucratic process to get TCNs licences was described as slow, leading to long waiting times (up to six months). The lack of driving personnel on Spanish islands was also a concern, with companies from the mainland needing to send workers. A stakeholder from Denmark explained that TCNs are excluded from many sectors in the Danish labour market, expanding beyond the transport sector, due to restrictive legislation. Slovenian stakeholders, on the other hand, reported that there is a heavy reliance on TCNs and the process to obtain work permits is relatively quick. However, challenges in the recognition of qualification along with issues related to the integration of workers into the society were identified as persistent barriers. The labour migration strategies pursued by Member States often reflect national priorities and bilateral relationships. In Ireland, for example, several agreements to recognise driving licenses with several third-country states have facilitated foreign recruitment (Department of Transport - Ireland, 2022). Poland has implemented targeted measures to simplify work permit requirements for citizens from neighbouring non-EU countries, including Ukraine, Moldova, Belarus, Armenia and Georgia in response to severe staff shortages (IRU, 2024). Similarly, Spain has proposed strategies to streamline residency and work authorisations for drivers from Latin America and Morocco. However, the implementation of the proposed measures has been delayed due to interministerial coordination challenges, highlighting the need for more efforts in this direction on the legislative level (De Elena, 2023).

Labour mobility in the road transport sector has been significantly influenced by wage disparities and inconsistent labour regulations across EU Member States. These differences have driven social dumping, where transport companies seek to maximise profits by hiring drivers from Eastern Europe where wages are much lower. For instance, a Bulgarian driver might earn around EUR 300 per month, while an Italian counterpart could make EUR 1 500 in the same period. This practice has led to job losses in Western Europe and difficult working conditions for Eastern European workers (Carter, 2020). The expansion of the EU in 2004 shifted international transport eastward, with countries like Poland, Lithuania, Hungary, and Romania becoming key players due to their lower labour costs. This shift reduced the market share of Western European countries such as the Netherlands, Belgium, Germany, and France, although many Western companies adapted by opening subsidiaries in Eastern Europe (De Smedt & De Wispelaere, 2020). While EU regulations address cabotage, working and resting hours, and wage compliance, enforcement remains weak due to a lack of inspections. Countries with strong social dialogue and collective bargaining practices tend to offer better working conditions, but they face growing pressure from competitors operating under lower standards (Heinrich-Böll-Stiftung, 2021).

Like the road sector, non-EU nationals in the railway transport sector face complex visa procedures and negative cultural perceptions. Language barriers in particular constitute a major obstacle to accessing the railway labour market as it has occupations potentially necessitating slightly more communication (European Commission: Directorate-General for Mobility and Transport, 2024a). Consulted stakeholders observed that the fact that railway companies operate in national language represents a barrier for the foreign workers that do not have such skills, and that the participation of TCNs in the railway sector is therefore limited.

7.0 Working conditions and impacts on industry's reputation

Key determinants of labour market imbalances in relation to working conditions:

- Long working hours, irregular schedules, and job insecurity contribute significantly to labour shortages in transport.
- Inadequate rest facilities and unsafe parking areas exacerbate stress and safety risks for drivers.
- Poor wages, low-quality contracts, and lack of job benefits drive workers away from the sector.
- The shift to new technologies and the need for additional training create uncertainties and complicate workforce transitions.

7.1 Road transport

Road freight sector

The road freight sector faces significant challenges which limits the attractiveness of the truck driver profession. The profession's poor image is one of the key issues identified by drivers along with lack of equipped and secure resting areas and poor treatment of drivers at delivery sites (IRU, 2025c). Long-haul distances with long periods alone and away from home are also a barrier to recruitment, especially in countries with high levels of international road freight, such as Slovakia, Romania, and Estonia (IRU, 2024). Although international trips do not always mean longer distances, long working hours and extended periods away from home discourage many potential drivers (Meller, 2024).

Several factors could explain this lack of appeal of the road freight industry. On the one hand, drivers are among the professions reporting the highest levels of health and safety at work risk (European Commission, 2023a). More specifically, road transport sector jobs are often characterised by long working hours, low quality of employment contracts, poor enforcement of occupational and safety standards, low pay, and high levels of job strain (Directorate-General for Employment, Social Affairs and Inclusion, 2024 European Parliament, 2023). For example, at least 30% of drivers reported that they had difficulties in making ends meet in 2021 (Directorate-General for Employment, Social Affairs and Inclusion, 2024; European Commission, 2023a).

With only 300 000 parking spaces available across the EU, and a shortage of an additional 100 000 to meet the total demand, many drivers are forced to stop in unsafe locations. On top of these numbers, only 10% of parking places are considered as safe in the EU. This insecurity not only affects the drivers' well-being but also exposes them to cargo theft, which is a prevalent issue in countries like Germany (IRU, 2024). Additionally, existing facilities often lack basic amenities such as showers, separate toilets, and safe sleeping zones, further compromising the safety of drivers (European Parliament, 2023b). Women working in land transport are also particularly vulnerable to sexual and gender-based violence from customers or colleagues (ETF, 2017).

Long border waiting times further complicate drivers' working conditions, particularly in the context of temporary border controls reintroduced across the EU. In 2023, drivers spent an average of one point five hours waiting at internal EU borders, with significantly longer delays reported at Romania's borders with Hungary and Bulgaria⁶, where delays of up to five days have been documented (IRU, 2024). These delays not only disrupt supply chains but also worsen drivers' experiences by increasing stress and reducing resting times.

⁶ From 1 January 2025, internal land border controls have been lifted for Romania and Bulgaria – the two countries becoming full members of the Schengen Area. This should facilitate the freight transit for both countries and their Schengen neighbours. - [Bulgaria and Romania join the Schengen Area - European Commission](#).

Drivers also face poor treatment at delivery sites, where they often manage strict schedules, endure long waiting periods, and are sometimes required to load and unload goods themselves (IRU, 2020). Coupled with the road transport profession's negative public image, especially with regards to safety and physical demands, these conditions deter new recruits, particularly women (European Parliament, 2023b and 20 minutes, 2023).

Road passenger sector

Bus and coach drivers also face numerous challenges related to working conditions, exacerbated by liberalisation of the industry. One key issue is the lack of comprehensive recognition of working time. Tasks such as traveling to and from vehicles are often excluded from paid working hours, and resting periods are frequently interrupted by work-related activities (ETF, 2022). Drivers also contend with tight schedules that fail to account for delays caused by traffic congestion or passenger needs, leading to significant occupational stress. Additionally, irregular schedules and last-minute shift announcements prevent the drivers from planning their personal lives and increase the precarity of their condition. Long hours, compounded by extended international trips under the 12-day derogation⁷, exacerbate the strain. Similar to road freight transport, the lack of adequate rest areas and substandard employer-provided accommodations further diminish the appeal of the profession (ETF, 2022).

Bus and coach drivers frequently have to comply with employment on zero-hours contracts, part-time arrangements, or split shifts, leaving them with unpredictable incomes. Another way to cut cost for some employers is to hire retired drivers, whose pension supplements reduce the need for social security contributions, further exacerbating wage disparities in the sector (ETF, 2022).

Driver fatigue is a persistent common issue in both freight and passenger transport. According to the European Transport Workers' Federation (ETF), 60% of truck drivers and 66% of bus and coach drivers regularly drive while fatigued, with nearly 30% of truck drivers and 25% of coach drivers reporting falling asleep at the wheel. These worrying statistics are the result of a combination of factors including long and unpredictable working hours, insufficient breaks, inadequate rest facilities, and poorly equipped vehicles (ETF, 2021).

The shift to electric buses, driven by green policies and new technologies, introduces additional complexities for the workforce. While electric vehicle maintenance may require fewer personnel, the transition period to electric vehicles demands workers skilled in both mechanical and electric technologies (UITP and Voss, 2024). Training needs and fair pay conditions are critical during this transition, regardless of whether services are outsourced. However, workers are concerned about potential job losses linked to green technologies and digitalisation, highlighting the need to guarantee upskilling and reskilling programmes. While performance monitoring, surveillance systems and data collection have long been present in the sector, digitalisation has enhanced these practices, raising new concerns about their impact on working conditions, and privacy (UITP and Voss, 2024). These practices could undermine employee autonomy and create a more stressful work environment. Ensuring that the shift toward clean buses does not compromise labour standards is essential for a sustainable and equitable transition (UITP and Voss, 2024).

Role of social dialogue

Trade union density in the sector stands at 15.2% in 2022, representing over 754 000 members out of 4.9 million employees. Unionisation varies significantly across Member States, with particularly high rates in Denmark, Luxembourg, Austria, Germany, Greece, and Sweden and minimal presence in others, such as Bulgaria and Malta (Eurofound, 2024b). On the other side, employer organisations represent nearly 300 000 members and cover at least 20.8% of companies in the road transport sector. Membership density is highest in Austria, Germany, Hungary, the Netherlands, Poland, Romania, and Spain. Many employer groups, including 51 affiliated with the International Road Transport Union (IRU) and 17 with the International Association of Public Transport (UITP), influence negotiations at both national and EU levels. (Eurofound, 2024b).

⁷ The 12-day derogation is an exemption under EU Regulation (EC) No 561/2006 that allows drivers engaged in occasional international passenger transport to extend their driving period to 12 consecutive days, instead of taking the mandatory weekly rest after six days of working. ([Driving time and rest periods - European Commission](#)).

Union and employer affiliations significantly impact collective bargaining outcomes. In urban public transport, 72% of employees in major companies are represented by ETF-affiliated unions, while 90% work for UITP-affiliated firms. In road freight transport, 63% of workers in large companies are covered by ETF unions, and 64% work for IRU-affiliated employers. However, national disparities persist, with some countries, such as Greece and Portugal, struggling to extend union representation to smaller firms. Despite strong engagement in collective bargaining, challenges remain. In 14 Member States, 30 employer organisations (27%) lack formal recognition, yet they still contribute to industrial relations (Eurofound, 2024b).

On a European level, the ETF and IRU have actively been involved in social dialogue process to develop driver shortage issues (Eurofound, 2024). The social dialogue in this sector aim to improve working conditions, attract young recruits to address labour shortages, and improve competitiveness of the sector compared to non-EU countries (Directorate-General for Employment, Social Affairs and Inclusion, 2025). There is a committee composed of the ETF representing workers, and the International Road Transport Union (IRU) and International organisation for public transport authorities and operators representing employers. Related to shortages in the sector, this committee has identified its key focus area to improve the sector's image, and boost recruitment. Additionally, it is working on improving social conditions within the sector, ensuring better enforcement of EU driving and rest time rules, and upgrading rest facilities for drivers. It also focuses on logistics qualifications and training requirements, recognizing their significant impact on employment in road transport.

Social partners are working towards a European framework for improving working conditions of third-country drivers whilst ensuring the full respect of their rights (ETF and IRU, 2024). This initiative is part of making the driver profession attractive for all, in particular EU youth and women by improving compliance with laws on working conditions and driver pay. They advocate for commitment from all participants across mobility networks and supply chains to comply with the Mobility Package 1, and support enforcement. Third-country drivers employed by EU companies must be included in all efforts to prevent human and labour rights violations, in order to raise standards for all (ETF and IRU, 2024). By advocating for better enforcement of these rules in cooperation with the European Labour Authority and a potential European Road Transport Agency, they aim to create a more attractive and sustainable work environment.

Within the framework of the formal EU road transport sectoral social dialogue committee, social partners committed to creating a permanent joint working group. This group will consult, discuss, and elaborate joint proposals on issues relevant to both partners. Key areas of focus include creating an EU framework for the recognition and acceptance of qualifications of third-country drivers, driver attestations, and cash payments. The group also will work to ensure compliance with social security and tax rules, establish fair and safe standards for pay and conditions, manage the posting of third-country drivers, and prevent the abuse of differences between Member States' social security systems. Additionally, the group will ensure close monitoring and follow-up of proposed actions regarding third-country drivers. These efforts are crucial in making the road transport sector more appealing to potential workers to reduce labour shortages.

Stakeholders consulted through the focus group discussed about the role of social dialogue providing examples of different national contexts. In Austria, social dialogue primarily focuses on cabotage regulations and preventing illegal transport, but disagreements persist over key labour issues such as wages, working hours, and the readiness of young drivers to take on responsibilities. However, challenges remain, particularly in international trucking, where low unionization levels weaken collective bargaining power and enforcement of labour protections. One proposed solution is integrating trade unions into enforcement mechanisms, as seen in Sweden, where unions assist authorities in monitoring compliance with posting rules.

Public transport social dialogue is integrated within the European sectoral Social dialogue committee for the road transport sector through a specific working group with the ETF on the employee side and the International Association of Public Transport (UITP) on the employer's side (Eurofound, 2017). This sectoral dialogue provides positive examples of how social dialogue has facilitated just transitions. In France, the automation of metro lines in cities like Marseille led to job reassignments rather than layoffs, ensuring that affected workers maintained their wages and conditions. This outcome was made possible through strong union engagement and negotiations between employers and labour representatives. This working group has worked on addressing labour shortage issues through joint opinions and recommendations on training, gender equality and sustainability (Eurofound, 2017)

7.2 Railway transport

In the railway sector, the shortage of workers and skills is combined with a severe lack of attractiveness and heightened competition for technical profiles. For railway workers in particular, work shifts, insecure contracts and poor wages are other important concerns to be addressed (ETF, 2023a). Labour shortages themselves contribute to worsen working conditions since they create more strain on existing workers. The European Transport Workers' Federation stated that shortage of staff had put immense pressure on the existing workforce, leading to burnout, stress, and a high turnover rate, while further reducing the sector's attractiveness to new recruits. Improving working conditions to alleviate this pressure, improve morale, and attract new talent to the industry is therefore key to exit this vicious circle (ETF, 2023b).

Market liberalisation has intensified existing challenges by introducing greater competition, consequently placing downward pressure on wages and benefits. Several countries report a decline in entry-level wages, along with reductions in allowances and social benefits previously secured through collective agreements. For example, trade unions in Germany and Austria have highlighted company practices seeking to lower labour costs by transferring workers to subsidiaries with reduced pay scales or withdrawing from centralised wage agreements. This worsening of labour standards has particularly affected train driver positions, which have become more demanding due to extended working hours, task overload, and increased stress (ETF et al., 2023).

Even though the impact of liberalisation varies across countries, working conditions are deteriorating overall. In Italy, driving time is often the only recognised component of working hours, leaving activities like train preparation unpaid and extending overall shifts. In Germany and in Czechia, excessive working hours and irregular schedules are becoming the norm, with reports of 14-hour working days, weekend shifts, and unpredictable on-call duties (ETF et al., 2023). These conditions make it difficult for workers to balance professional and personal lives, creating additional recruitment and retention difficulties.

Role of social dialogue

Social dialogue in the railway sector is deeply embedded in collective bargaining structures and institutional frameworks, ensuring strong representation of workers' interests. Trade unions play a central role, with 98% of the 168 railway sector unions actively participating in collective bargaining. However, the sector is marked by a fragmented trade union landscape, with significant sectionalism and overlap in union domains. While some unions strictly align with the railway sector, many represent workers across multiple transport modes or even other industries. Despite this complexity, collective bargaining coverage remains extensive. Employer organisations also play a key role, with 45 identified across 20 EU countries, most of which engage in collective bargaining, although their domain patterns also vary significantly - some focusing strictly on freight or passenger rail, while others extend into broader industry cooperation (Eurofound, 2017).

On the European level, the most important European social partners are: the European Transport Workers' Federation (ETF), representing over 3.5 million transport workers across various sectors and having affiliations in all EU countries; the Community of European Railway and Infrastructure Companies (CER) representing the majority of European rail operators and infrastructure companies with affiliations in 26 countries; European Rail Infrastructure Managers (EIM), representing rail infrastructure managers in 11 European countries (Eurofound, 2017). Stakeholders consulted through the focus group emphasise that social dialogue in the railway sector is well-established and generally effective but faces growing challenges due to industry liberalisation and structural complexities.

At EU level, the European Sectoral Social Dialogue Committee for Railways brings together representatives from both employers' organizations (CER and EIM) and workers' organizations (ETF) to discuss and address challenges in the sector. Areas of work directly related to labour shortages include attracting new staff, recruiting younger people and managing an ageing workforce (Directorate-General for Employment, Social Affairs and Inclusion, 2025b). It is also focused on increasing staff safety and gender diversity. The social dialogue in the sector conducts regular member surveys to monitor the implementation of recommendations on integrating women in the sector. It also has produced follow-up reports on agreements concerning working conditions of mobile workers assigned to cross-border services (Directorate-General for Employment, Social Affairs and Inclusion, 2025). This effort ensures adequate protection of mobile workers in cross-border services, contributing to increasing working conditions. The railway social partners are working towards a single European railway area to improve working conditions in the sector. This railway area will abolish technical, administrative and legal obstacles that stop new rail operators entering the market. These initiatives demonstrate the rail sector's commitment to addressing labor shortages by making the industry more attractive to potential employees. However, implementation of such initiatives at national level remains difficult, as companies have varying levels of commitment to these measures.

Liberalisation has fragmented the sector, making social dialogue more complex. In Germany, for instance, Deutsche Bahn consists of over 500 companies, complicating worker representation and negotiations. Stakeholders highlighted how, despite these challenges, social dialogue remains beneficial, contributing to sector stability by reducing strikes and improving working conditions. Spain's experience with high-speed rail privatisation highlights this dynamic - initial instability led workers to favor national operators, but collective agreements have since improved conditions in private companies as well.

Stakeholders also discussed the importance of effective communication between unions, companies, and authorities to maintaining industrial stability. In Norway, national education standards and collective agreements across multiple companies have ensured smooth cooperation, resulting in few labour disputes. In Belgium, however, stakeholders warn that decision-making is increasingly influenced by external consultants with little railway experience, creating inefficiencies that impact operations and passenger services. While unions play a crucial role in advocating for workers and addressing these systemic issues, shifting industry structures make it increasingly difficult to maintain a unified and effective dialogue.

8.0 Skills and qualifications gaps

Key determinants of labour market imbalances in relation to skills and qualifications:

Road transport

- The costs of obtaining driving licenses and professional qualifications are high, making entry into the sector difficult for many, especially younger workers.
- Training programmes are often outdated and fail to cover essential modern skills, such as eco-driving, defensive driving, and new technologies, creating a skills gap.
- There is a mismatch between formal education and the practical skills needed in the industry, delaying entry and reducing the appeal of trucking careers.
- Older workers are often reluctant to engage with new technologies, such as electric vehicles and digital tools, further widening the skills gap.

Railway transport

- Automation and advanced train control systems require workers, especially drivers, to acquire new technical, IT, and language skills.
- The rise of automation, such as Automatic Train Operation, demands new skills and organisational adjustments to maintain efficiency and safety.
- The transition to a climate-neutral economy requires specialised skills in sustainability and green technologies, influencing workforce needs.
- A lack of standardised training systems hinders the sector's ability to effectively upskill and reskill workers to meet new technological and environmental demands.

8.1 Road transport

The road freight sector faces challenges related to obsolete training programmes which increase skills and qualifications gaps. It is not only impacted by the lack of workers, but also by the lack of skilled workers – with Slovak companies suffering the most from a shortage of skilled drivers (IRU, 2023a).

An important barrier hindering younger drivers to access the truck driving profession and decreasing career attractiveness are significantly linked to high costs, such as higher insurance premiums for young drivers as well as the cost of the driving licence (IRU, 2023a). On average, it costs EUR 5 467 to obtain a truck driving license (C+CE) and professional qualification (CPC) in Europe, ranging from EUR 1 015 in Romania to EUR 10 650 in Norway (even though in this case, the government usually covers these expenses). Romania has the lowest costs for obtaining a truck license, but they are still 70% and 40% higher than monthly living costs and minimum salary (IRU, 2023a). In Finland, the required certifications are both expensive and time-intensive to obtain. For many potential drivers, the high costs and strict regulatory requirements build a significant obstacle for the obtention of the qualification, especially for those already facing financial challenges (IRU, 2025c).

The third barrier in terms of skills and qualifications is the mismatch between formal education or training and the practical skills needed for driving a truck. Many truck driving training programmes in Europe are outdated, not covering essential modern skills like defensive driving, eco-driving, or new technologies (IRU, 2023a). This disconnect highlights a broader issue of educational alignment, where training does not sufficiently meet industry demands, unable to keep pace with technological advancements such as automation and digitalisation (Tammilehto et al., 2023).

The road passenger transport sector faces challenges similar to those in freight transport, particularly regarding the high costs of driving licenses. For example, in Germany, the cost of obtaining a passenger transport license can reach around EUR 9 000, representing four times the monthly minimum wage (IRU, 2023a).

The ‘school-to-wheel gap’ in passenger transport is even more pronounced than in the trucking sector. In several EU Member States, the minimum age for driving internationally can range between 21 and 24 years, which limits the opportunities for younger drivers to enter the industry directly after finishing school (IRU, 2023a). As a result, many individuals only transition into the trucking profession later in life, often after careers in other sectors. Stakeholders consulted through the focus group highlighted that in countries like Spain, where the average age for obtaining a driving license is 49 years, this late career entry contributes to the ageing demographic of the trucking workforce.

Regarding greening policies, the transition to electric buses requires drivers, technicians, and maintenance staff to be trained in high-voltage safety, battery handling, and other new technical skills. This upskilling is essential to handle the evolving technology, but these technological evolutions also require the workers to improve a set of interpersonal competences, including transversal skills such as problem-solving, communication, and teamwork (UITP and Voss, 2024).

However, consulted stakeholders underline that upskilling and reskilling efforts encounter reluctance, especially from older drivers, who struggle to engage with new systems, such as electric vehicle technology and smart tachographs. Older drivers may find it hard to see the benefit of learning complex systems, especially when they are nearing the end of their careers.

Focus group participants emphasised that the financial burden of adapting to new technologies also highlights the educational mismatch in the industry. The skills gap between the demands of the sector and the available workforce is widening. While some companies have introduced eco-driving training and programmes to teach digital skills, the uptake of these programmes is still limited, particularly among older workers. Without sufficient economic incentives, such as wage subsidies or tax breaks, companies are less likely to invest in extensive training, further hindering the industry’s ability to transition smoothly into the digital and green future.

8.2 Railway transport

Despite its strong position as the most sustainable mode of passenger transport and its anticipated growth in the next years, the railway sector faces significant challenges in addressing skill and qualification gaps. The transition towards a climate-neutral economy demands specialised skills in sustainability and green technologies (Cuzzupe, 2023; Eurofound, 2023). At the same time digital transformations require upskilling in areas like STEM and communication (Shift2Rail Joint Undertaking et al., 2019). Railway workers, need to acquire new technical, IT, and communication skills to adapt to advanced train control systems (Broughton et al., 2024) Automation will still rely on human oversight through manual operation or remote-control for safety.

The Shift2Rail Joint Undertaking highlights two major challenges for rail companies: managing complex, data-heavy systems and creating a diverse and motivated workforce. To address these issues, it is essential to accelerate knowledge transfer while maintaining a balance between academic-level skills and vocational training (Shift2Rail Joint Undertaking et al., 2019).

The Skill Training Alliance For the Future European Rail system (STAFFER) funded by the European Commission identified current and future skills shortages and workforce challenges (Staffer, 2024). STAFFER’s findings highlight that the way forward for the industry lies in digitalisation, sustainability, and technology. Key competencies identified for modern railway professionals include systems engineering, cloud-based applications, data analysis, cybersecurity, and virtual reality simulators, alongside traditional expertise in mechanical and electrical engineering (Staffer, 2024). However, the educational landscape is not adequately aligned with these needs. Despite various programmes across Europe, none at the tertiary education level are specifically tailored to ensure direct pathways to railway sector positions (Cuzzupe, 2023).

To keep both employers and employees up to date with technological advancements, a standardised training system is needed to ensure everyone is included in the process. Automation, particularly Automatic Train Operation (ATO)⁸ is being sought out to increase efficiency and capacity. It is reshaping roles such as drivers and control staff. ATO, requires new skills and organisational adjustments, in addition to a new learning and training culture (CER and ETF, 2022). Workforce planning and training are therefore crucial to adapt to these technological shifts and to guarantee that automation complements a skilled workforce.

⁸ Automatic Train Operation (ATO) is a method of operating trains automatically where the driver is either not required at all or serves a supervisory function at most. - [Increasing railway line capacity starts with increased automation - Europe's Rail](#)

9.0 Recruitment practices to fill labour and skill gaps

Key determinants of labour market imbalances in relation to recruitment practices:

- Practices like 'letterbox companies' offshore labour to countries with lower costs, reducing the availability of workers in higher-income regions.
- Different types of underdeclared work reduce social security benefits for workers and lower working conditions through non-compliance with working and resting times.
- Temporary work agencies hire workers from lower-wage countries under poor working conditions, without proper work permits or social security.
- Outsourcing of core jobs in sectors like railways reduces job security and increases turnover, deterring long-term commitment.

9.1 Road transport

In the past decade, the liberalisation of the labour market has reshaped recruitment practices. As industries strive to remain competitive, businesses have increasingly adopted flexible, cost-saving measures such as subcontracting (ETF, 2022). While these practices have helped companies adapt to changing economic conditions, they have also introduced new challenges related to job stability, workers' rights, and the quality of work.

In the road freight sector, the inherently mobile nature of haulage services creates opportunities for fraudulent contracting practices resulting in undeclared work. These include the misuse of 'letterbox companies' to offshore transport operations to countries with lower labour costs while performing activities predominantly elsewhere in Europe. Domestic road transport has also seen an increase in bogus self-employment, where drivers are misclassified as independent workers, allowing companies to bypass labour regulations and avoid paying social security contributions (European Platform Undeclared Work and Haidinger, 2018). Employers may also pay wages informally, reducing drivers' entitlements to social security. Another sector-specific practice allowing underdeclared work manifests through the non-compliance with resting and driving periods. This involves tampering with the tachograph, the device that records driving and resting times (ELA, 2022).

Similarly, the passenger transport sector has experienced an increase in subcontracting practices which often result in uncertain job prospects and unstable incomes for bus and coach drivers. Big international operators of the bus and coach industry rely extensively on subcontracted regional companies for transport services, retaining 25–30% of ticket revenue while external firms are responsible for the driving. These arrangements create a high dependency on small operators, often offering less favourable conditions to workers (ETF, 2022).

Stakeholders from Austria consulted in the focus group highlighted the issue of subcontracting, particularly in the small goods delivery sector. During seasonal peaks, such as Christmas, subcontracted drivers are often working exceptionally long hours - up to 16 hours a day - delivering over 200 parcels.

In Belgium, the situation is similarly concerning, as many workers, particularly those in subcontracted positions, are unaware of their rights and often face exploitation due to the lack of enforcement of labour laws.

Temporary work agencies play a prominent role in filling labour shortages in the railway sector. In Germany, Austria, and Czechia, more than 10% of train drivers are hired through such agencies. They offer the benefit of higher wages but impose longer working hours and flexibility requirements. The hired drivers are then often excluded from collective bargaining agreements, reducing their job security and access to social benefits (ETF et al., 2023).

In transnational scenarios, work agencies frequently recruit workers from lower-wage countries to deploy them under worse pay and social conditions in high-income nations. Such practices have been reported in countries like Germany and Austria, where trade unions have raised concerns about social dumping practices and violations of driving time regulations (ETF et al., 2023).

Stakeholders consulted through the focus group on road transport also noted that temporary work agencies, often based in Eastern Europe, are becoming a growing concern. These agencies recruit third-country drivers but struggle to secure work permits for them, leaving many workers in precarious, unclear employment situations. Without proper work permits or access to social security, these drivers are left vulnerable to exploitation, and the employment relationships themselves become increasingly ambiguous.

9.2 Railway transport

Similar trends are evident in the railway sector. The liberalisation of the market has made traditional railway jobs less secure and more precarious. Part-time contracts, temporary work agencies, and outsourcing are increasingly becoming common practices for recruiting the workforce.

The outsourcing trend is particularly concerning with regards to jobs once seen as central in the railway industry, such as maintenance or catering, now often handled by external contractors. These outsourced workers typically face worse conditions and receive a lower pay, which compromises safety and the quality of their work (CER and ETF, 2022).

Stakeholders highlighted the growing issues of temporary work agencies in Germany, especially for train drivers and other rail staff. These agencies promise higher wages but often fail to provide proper contracts or clear job roles, leading to lack of transparency. Stakeholders also raised concerns about inadequate training. In Germany, around 120 institutes offer training for the railway sector. Stakeholders shared some organisations are promising certification within 9 months, a much shorter period than the three years of education typically required for the role. The training level of subcontracted drivers hired during periods of driver shortages in railway freight is also thought to be lower than the standard three years of training. This poses safety risks, as insufficiently trained staff are put in charge of complex and potentially dangerous tasks, such as operating freight trains for extended hours.

10.0 Measures to tackle labour market imbalances

Key determinants of measures to tackle labour market imbalances:

- Member states have implemented various initiatives to attract new workers in road transport, including performance-based rewards, salary increases, and attractive training programs.
- Efforts to improve workplace conditions in road transport include high-quality rest and wash facilities, flexible route choices, and legislative reforms to reduce physical strain.
- The sector promotes gender diversity through company-level projects and higher level initiatives like the 'Women in Rail Autonomous Agreement.'
- Collaborative transnational programs and initiatives in the railway sector support skill enhancement and work-life balance, including apprentice exchanges and flexible working times.

10.1 Road transport

Member States have increasingly implemented measures to tackle labour shortages and to attract new workers in the road transport industry such as performance-based rewards, salary increases, investments in better vehicle quality as well as attractive training programmes (IRU, 2024). The following examples demonstrate these efforts:

- Germany's BGL Recruitment of Young Talent Support Programme, an evolution of the DE MINIMIS initiative, emphasises improving driver comfort by incorporating modular systems, on-board refrigerators, and company health management, alongside providing language and integration courses. With the goal to attract and retain younger talent, this initiative highlights an essential investment in future workforce development (IRU, 2024).
- Ireland's IRHA traineeship programme⁹ offers a six-months training programme fully funded by the SOLAS Traineeship Scheme, providing participants with heavy goods vehicle licenses and practical experience through company placements (IRU, 2024).
- France's FNTR GEIQ Transport Logistics initiative¹⁰ promotes integration for workers distant from the labour market through structured training resulting in direct employment (IRU, 2024).
- Spain's ASTIC education cycle¹¹ combines classroom learning with practical industry experience to encourage young people to join the sector (IRU, 2024).

Other initiatives aim at enhancing workplace conditions, such as CEVA Logistics' provision of high-quality rest and wash facilities. CEVA Benelux offers drivers the choice to choose routes within the Netherlands or Belgium with daily returns or longer routes with overnight stays which have greater compensation (IRU, 2025a). DB Schenker offers a similar choice (IRU, 2025a).

Attracting female drivers is not a widespread practice. However, CEVA's Dock to Driver Program attracts young and female drivers by providing a pathway from warehouse roles to driving positions. The company supports eligible candidates with driving school costs and offers on-the-job training, enabling them to become drivers in a short amount of time (IRU, 2025a).

⁹ Professional HGV Training Programme - IRHA

¹⁰ GEIQ - GEIQ Transport Logistique - Avenir Emploi en Rhône-Alpes

¹¹ ASTIC promotes Dual Vocational Training to attract Transport and Logistics professionals, essential for our economy - ASTIC

On top of the above mentioned training programmes to attract new workers and the efforts to create a more comfortable workplace environment, legislative initiatives have also contributed to improving working conditions. For example, Spain's 2020 law prohibited drivers from engaging in loading and unloading tasks – by reducing physical strain, this reform has made the profession more appealing, particularly to women (IRU, 2024).

Labour shortages in road passenger transport have also driven the development of innovative training and recruitment programmes at national level. For instance, Cyprus introduced the Bus Driver Apprenticeship Programme that supports candidates through the licensing process, covering administrative and training costs while offering in-work training and guaranteed employment after programme completion (Eurofound, 2024a).

Some countries are working to lower the minimum driving age for bus drivers from to make it easier for young workers to enter the profession (IRU, 2023b). EU legislation sets the standard minimum age to drive a heavy-duty truck (C and CE licenses) at 21 years, which ensures that drivers have sufficient maturity and training for handling large vehicles safely. However, a derogation allows Member States to lower this age to 18 years, provided the driver completes training to obtain CPC qualification (Directive 2006/126/EC of the European Parliament and of the Council of 20 December 2006 on Driving Licences, 2020). In some countries, regulations remain particularly rigid, like in Romania, Hungary, and Latvia, where drivers are only allowed to drive internationally from 21 years old while at the same time those countries have a 60% share of international operations (IRU, 2023a). Reducing the driving age avoids a 'school-to-wheel gap', which refers to the time young workers need to wait before reaching the minimum required age to drive a truck (IRU, 2023a).

10.2 Railway sector

The railway sector has focused on measures that address skill gaps, foster gender inclusion, and promote transnational collaboration. The STAFFER¹² project under Erasmus+ identifies current and future skill requirements, offering recommendations to the European Commission on addressing these gaps. Gender diversity is promoted through initiatives like the 'Women in Rail Autonomous Agreement' between the Community of European Railway (CER) and the European Transport Workers' Federation which includes efforts by Deutsche Bahn (German national railways) to create networking opportunities and career development platforms for women (European Commission: Directorate-General for Mobility and Transport, 2024a). The implementation of the agreement was set to be finalised by all CER members by the end of 2024. However, stakeholders believe many companies have not yet fulfilled their obligation. A status report carried out by the ETF and the CER is planned for September 2025.

CER's Sixth Annual Report on the development of women's employment in the European railway sector also mentions the measures implemented by Austrian and German railways (ÖBB and Deutsche Bahn) improve family/work balance for women, including flexible working times and reduced weekly working hours (CER, 2020).

Collaborative transnational programmes also play a significant role. Apprentice exchanges between SNCF (French national railways) and Deutsche Bahn, and ÖBB¹³ enable workers to gain hands-on experience in rolling stock maintenance, enhancing skills while fostering collaboration. National-level initiatives like Deutsche Bahn's upskilling and reskilling programmes and the use of blended learning models in Sweden support workforce adaptability in the face of digitalisation and automation (European Commission: Directorate-General for Mobility and Transport, 2024a).

¹² [About STAFFER - Railstaffer](#)

¹³ [BREAKING: ÖBB, Deutsche Bahn and SNCF cooperate in cross-border apprentice exchange program | RAILTARGET](#)

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