Smarter working and smart working practices

A vision of social partners in respect of road transport and logistics by 2025

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Final Report

Stichting Opleidings- en Ontwikkelingsfonds Beroepsgoederenvervoer

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Foreword

The social partners in the Professional Goods Transport by Road and Mobile Crane Rental (Beroepsgoederenvervoer over de weg en de verhuur van mobiele kranen), herewith provide you with the following report 'Smarter working and smart working practices, a vision of social partners in respect of road transport and logistics by 2025'. In 2018 the social partners commissioned research firms Panteia and Basis & Beleid to deepen knowledge about the sector and to provide the building blocks for an agenda for the sector's future.

The sector is evolving rapidly. International politics, developments in the labour market, developments in the shipping sectors, increasing attention for the environment and the rapid development of new technologies and new companies, will all potentially have an impact on the sector and require the vision of social parties, outlining how these changes should be dealt with. This vision is outlined in this document, which was finalised in early 2020.

At the point at which the social partners planned to present this vision, the sector was confronted with the impact of the outbreak of the COVID 19 pandemic. Transport and logistics are pre-eminently cyclical sectors and the impact of corona therefore had a significant impact on the sector. In its short-term forecasts, the Netherlands Bureau for Economic Policy Analysis (CPB) has predicted a sharp economic downturn, which temporarily interrupts the trend of years of growth in the economy and in transport and logistics. For that reason, the social partners decided to postpone publication of the vision and include in this vision the impact of corona in the short and medium term. That resulted in the vision being amended in the summer of 2020.

By means of this amended document, which provides an up-to-date insight into the current status of the sector and a glimpse into the future, social partners would like to engage in discussions with their supporters and one another. This would enable them to guarantee that the transport and logistics sector continues to play an important role in Dutch economy, by maintaining anything that is going well and improving anything that can be done better. The goal is to have a sector that appeals to businesses, in which employees want to work. This report provides an insight into the challenges being faced by the sector. The research has given us greater insight and forms the basis of a work plan (during the forthcoming years) for social partners in the Training and Development Fund Foundation for Professional Goods Transport by Road and Mobile Crane Rental (Stichting Opleidings- en Ontwikkelingsfonds Beroepsgoederenvervoer over de Weg en de verhuur van mobiele kranen) (SOOB). We hope that this report will help to support joint activities amongst businesses and employees in the sector.

SUMMARY

‘On the road towards 2025, full of courage and ambition’

REASON FOR VISION 2025 ROAD TRANSPORT AND LOGISTICS

To guarantee the long-term future of the sector, a unique collaboration between employers’ organisations (Transport and Logistics Netherlands - Transport en Logistiek Nederland and the Vertical Transport Association - Vereniging Verticaal Transport) and trade unions (FNV and CNV) was set up to actively define the sector’s long-term prospects. This collaboration has resulted in the social partners arriving jointly at new insights, which have received sufficient support from both sides of the table. In 2009, this resulted in the publication of the study ‘Wegvervoer en logistiek Visie 2015’ (Road Transport and Logistics Vision 2015), which mapped out the important themes for social partners within the sector. This study has resulted in an improvement in the labour market information available to the social partners. Based on the study and the monitoring of the information subsequently collected based on that study, the social partners have decided on their agenda for the future. The availability of relevant information resulted in the sector being one of the first to report to the Ministry of Social Affairs and Employment in order to qualify for co-financing. A sector plan was prepared for the Ministry of Social Affairs, relating to the inflow, retention and sustainable employment of employees. Professional Goods Transport by Road and Mobile Crane Rental[1] was one of the first to receive a commitment for the sector plan. The Ministry of Social Affairs and Employment contributed €15.6 million in total for sector plans 1 and 2.

The social partners require a new vision. Not only has the future year now passed, there are also new developments, such as the platform economy and self-driving vehicles, which could bring about changes in the sector. This has led to the start of the study ‘Vision 2025 road transport and logistics’.

TRANSPORT AND LOGISTICS IN MOTION

According to Topsector Logistiek (Top Sector Logistics), 850,000 people work in the Dutch transport and logistics sector. More than 150,000 of them work in the professional goods transport sector. The other employment in the top sector is in the shipping industry and logistics service providers ‘without wheels’.

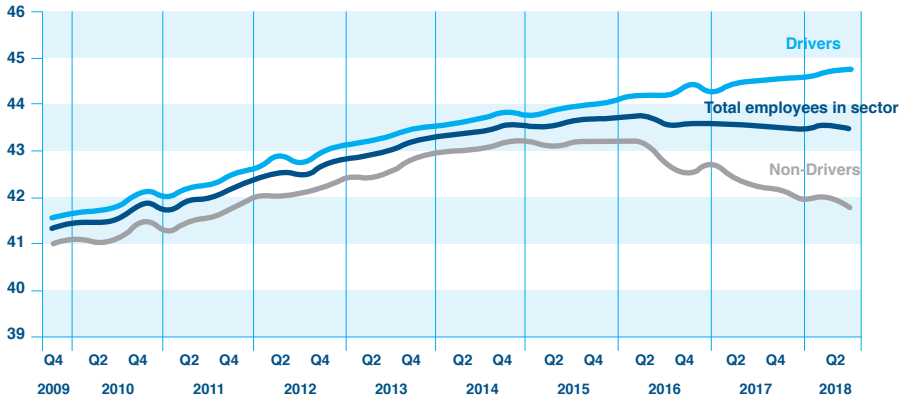
[1] In this report, this is henceforth referred to as ‘professional goods transport’

Small businesses make up the vast majority of the sector, but only employ a small percentage of the people. Almost 60% of the 150,000 employees work at companies with more than 50 employees. A key challenge is the ageing of the current workforce. But retirement alone isn't to blame for the turnover of personnel; there are other motives for outflow. Companies in the sector are increasingly looking for new personnel; in the first place to meet demand for the replacement of staff, but also to be able to expand. Ageing will continue to have increasing repercussions on the sector until 2025.

All sectors that draw on the pool of employees in senior secondary vocational education (MBO) are facing shortages. After 2020, the inflow from senior secondary vocational education (MBO) will decrease, which will have a further negative impact on the shortages. The inflow of people with a technical educational background, from Higher Professional Education (HBO) and academic university education (WO) was highly unsatisfactory back in 2019.

The sector's main growth was in the Business-to-Consumer segment. Currently, other groups of (potential) employees, often contracted as self-employed persons, operate in that domain. Not only self-employed persons who work (more than) full-time hours, but also students and part-timers who, according to the new entrants in question, would have less of a need for a CLA and are looking for additional earnings in a flexible job.

The average age of drivers and other employees in the sector



Source: STL/PFV

The total turnover of the road transport sector is €22 billion. If the activities of forwarders and postal services, courier services and associated activities, such as storage, warehousing and land transport services are included, the turnover is more than €51 billion. The transport and logistics market grew from mid-2013 until 2020 as a result of the booming economy. However, March 2020 saw the start of the corona crisis and a lockdown was imposed in the Netherlands, resulting in an abrupt halt in economic growth. The growth of volumes in transport and logistics is generally lower than the growth in Gross Domestic Product (GDP) – a result of efficiency gains in the transport sector, where the focus is on limiting empty kilometres and increasing the load factor.

According to Statistics Netherlands, in 2018 there were 139,656 freight vehicles that exceeded the total weight of 3.5 tonnes. Professional goods transport by road owns almost 80% of these vehicles. The other trucks are privately owned fleets. In addition, almost 40,000 delivery vans operate in both the professional goods transport sector and in privately owned fleets. In cargo transport, the percentage of privately owned vehicles continues to decrease in comparison to professional goods transport, but privately owned vehicles seem to be gaining ground in terms of parcel delivery services. In 2020, there were 1,720 distribution centres (DCs) in the Netherlands. The average size of a DC was 22,000 square metres. The substantial growth in distribution centres (+15% up to 2025) is mainly seen in logistics service providers 'without wheels'. B2B transport will benefit less from this growth than B2C transport. It is anticipated that transport by delivery van will grow by 10% a year.

Dutch transport companies in international transport are still able to compete in short-distance transport (because the bilateral transport between the Netherlands and West-European countries is largely performed by Dutch registration plates), but in terms of long-distance transport, they are increasingly losing ground to foreign registration plates. In terms of total European transport performance, the Netherlands saw its share decline from 7.2% in 2008 to 4.8% in 2017. Of the 67.5 billion tonne-kilometre transport performance of the Dutch road transport as a whole (domestic and international), two thirds is now over a distance of less than 300 kilometres. Furthermore, the declining 'flag share' in international transport is partly carried out by Eastern European drivers working for Dutch companies.

Wage costs competition is less possible in the domestic transport market. Because of regulations, the domestic market has better protection against unfair competition, but due to a lack of enforcement, the regulations are not effective

enough. Competition remains fierce and small companies in particular – which often drive as subcontractors for larger companies – are unable to achieve a decent return in domestic transport.

The 'flag share' in international transport will continue to decline until 2025, as there will continue to be wage differences between the Netherlands and East European countries. Given the limited share of 1% of foreign registration plates in domestic transport sector and the strict cabotage rules, it is anticipated that the domestic transport market will be less affected by this, provided that the cabotage rules are not relaxed, except for illegal cabotage or cabotage by vehicles without a licence. There will be an increase in one-day transport over a distance of less than 300 km.

EN ROUTE TO 2025

Macro economy

The CPB and the Netherlands Environmental Assessment Agency (PBL) predict in the Welfare, Prosperity and Quality of the Living Environment (WLO) scenarios, macro-economic (GDP) growth of 1 to 2% a year, up to and including 2025. Until 2016, the transport volume was lower than the low scenario, but in 2017 and 2018, the transport volume increased to above the high scenario trend. The growth was expected to level off again, therefore the transport volume by road would also see a more modest growth up to 2025 than in recent years. Given the uncertainties surrounding a large number of issues (Brexit, trade wars, political shifts), economic trends can only be predicted very cautiously and a sector that is sensitive to economic trends, such as transport, must continuously take into account changes in market conditions. The corona crisis (COVID-19 pandemic) of 2020 will also have a drastic impact on economic trends and the GDP, at least in the short term and probably in the medium term too. This impact is also accompanied by uncertainty. In June 2020, the CPB developed a basic forecast and three scenarios for the development of the GDP. In the basic forecast ('Moderate recovery'), 2020 sees a decline in GDP of 6%, and in 2021 an increase of 3%. The three uncertainty scenarios are as follows:

Scenario 1. Second wave: sharp and sustained decline;
Scenario 2. Weak recovery: faster rise than in the basic forecast;
Scenario 3. Fast/complete recovery: increase starts early and continues unabated.

Recovery of the transport sector following the corona crisis

The road transport sector is hit hard by the stagnation of the economy as a result of COVID-19. The International Road Transport Union (IRU) predicts that, in 2020, the turnover of road transport companies across the world will be on average 17% less than in 2019. In the EU, this equates to €64 billion in lost value. The EU has drawn up an EU Recovery Plan within the following Multiannual Financial Framework (2021-2027), in which €750 billion has been made available for the recovery of the economy. The IRU is lobbying to make 10% of this amount available for road transport companies in the EU. Germany, as President of the European Commission, wants a 'pandemic plan' in place for the second half of 2020, for European goods transport, in the event there is a second wave.

Little space for the mid-market segment

The scaling-up and the internationalisation of the business community also require the scaling-up and internationalisation of logistics services. In recent years, many Dutch logistics service providers have become part of international companies. Through regulations, the domestic transport market has better protection against unfair competition, but entry thresholds to the market are low. In the domestic transport sector, large companies will continue to grow as a result of mergers and acquisitions, in order to integrate networks and achieve sufficient economies of scale. Flexibility in the sector continues to be provided by small companies working as subcontractors, or as charters for the larger companies. There is still a significant difference between the returns of the large companies and the small traditional transport companies that do not specialise.

Shipping sectors: growth and increasing impact of online

The corona crisis has exposed the weaknesses of just-in-time supply chains. It is anticipated that this will lead to (radical) changes in global supply chains: from just-in-time (minimum inventory) to just-in-case (larger inventories for emergencies).

Over the next few years, there will be a slight increase in the demand for Potatoes, Vegetables and Fruit (fresh produce), mainly because of exports. The increase in the consumption of fresh produce in the Netherlands is virtually on par with the small growth in population anticipated over the next few years.

Total retail sales will increase only slightly up to 2025. Conversely, e-commerce sales will double by 2025 compared to 2018. It is expected that approximately 40% of non-food online sales will be sold through platforms such as Bol.com,

Wehkamp, Amazon and Alibaba by 2025. It is anticipated that the percentage of online food sales will increase from 4% in 2017 to 10% in 2025, including home delivery of meals. Food retail is currently still dominated by the supermarket, but a shift to online sales and on-the-go consumption will get the food chain moving. As is the case with non-food stores, there will be a steady decline in the number of supermarkets until 2025. The result of this is that there will be a decrease in volumes in store distribution using trucks. Through the shift to B2C consumer transport, (private) customer wishes will become increasingly important: convenience, speed (last-minute), track-and-trace, image and one-stop-shopping.

The construction sector will continue to grow until 2025; this year by 4 to 5% and thereafter by approximately 2% a year. In construction transport, the transport of prefab products will increase. More and more new buildings will be constructed in the city. Construction transport faces the challenge of achieving effective supplies in increasingly dense built-up areas, smaller construction sites and congestion: storage will be on the outskirts of the city and just-in-time supply will increase from these storage depots.

In industry too, growth is not expected to be as strong after 2019 (2% a year). In order to comply with stricter consumer requirements (speed, flexibility and customisation), supply chains must be shorter, the number of product variations will increase and batch sizes will decrease.

Demography, employment and labour: large differences between the city and region

The population will increase in the short term and its composition will change. Continuing ageing of the population will put pressure on the labour market. Two thirds of the population growth will come from migration, and one third from natural growth. The population will increase most in the Randstad conurbation, both in the major cities (Amsterdam, Rotterdam, The Hague and Utrecht) and in the surrounding municipalities (e.g. Haarlemmermeer, Zandvoort and Bunnik). Major cities outside the Randstad conurbation also show considerable growth (e.g. Tilburg, Nijmegen and Zwolle). On the other hand, a decline in population will occur in approximately a third of rural municipalities. Differences in distribution concepts between cities and rural regions are expected to widen. This doesn't only apply to distribution, but also to the type of vehicles, because electric transport will simply become the standard in cities. The percentage of inner-city transport will therefore increase further, but in view of the increasing

lack of space, this is a problematic possibility. Environmental zones will also increase the pressure on carriers.

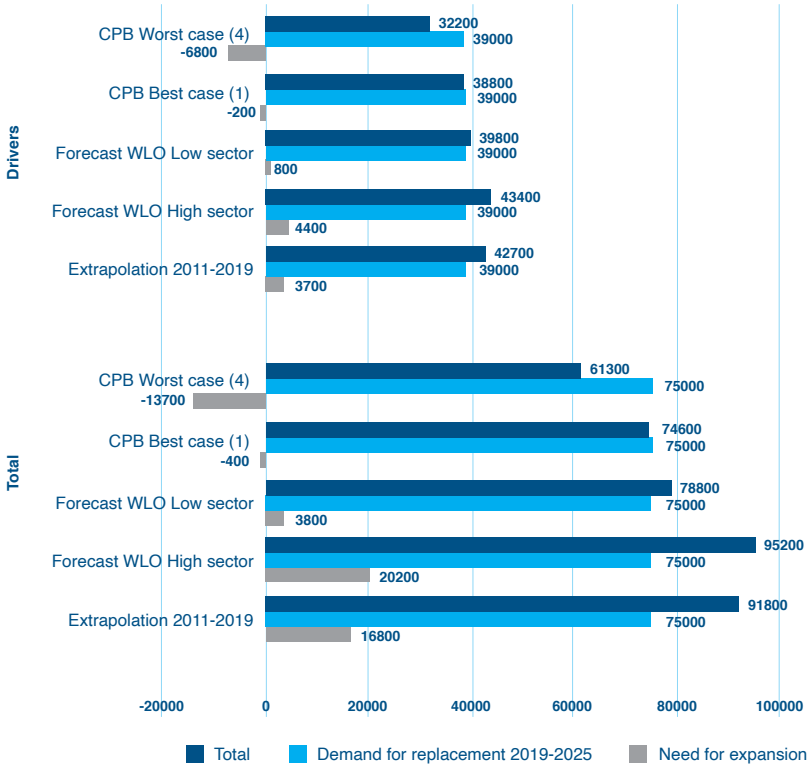
In addition to the demographic structure, work patterns are also changing. The number of single breadwinner families (single earner) has been decreasing for years. In 2006 more than a quarter of the families had just one breadwinner; in 2016 that was approximately 20%. This explains the growing need for part-time jobs. The things that employees find important are the balance between work and personal life, influence of the working hours and the length of the working day, prevention of incapacity for work, training and permanent employment. The CLA for Professional Goods Transport by Road still offers substantially less than other CLAs in sectors that are competitors in the labour market. However, the difference has decreased considerably compared to 2008 at the lower end of the CLA. Approximately 65% of participants in exit interviews left the sector voluntarily. The aspects of the job that people are least satisfied with are: the working hours and the length of working days (drivers), allowances and working hours (logistics staff and planners) and allowances and salary (other employees).

The corona crisis means it is unlikely that there will be a significant need for expansion up to 2025 and there is a real possibility that, by 2025, employment will not have returned to the level of 2020. The need for expansion may not be huge, but the sector will also have to fill vacancies that arise as a result of outflow, which has been high in recent years and which will be higher still in 2020 and 2021 due to the corona crisis. Until 2025, the sector must take into account the requirement to replace (on average) 15,000 employees (including 7,800 drivers) each year. After the corona crisis, significant ground will have to be made up to address the demand for labour.

The strong growth in logistics activities is largely taking place outside the Transport and Logistics sector, in specialised DCs or at the DCs of webshops and manufacturers. This growth will not lead to a proportional increase in the number of jobs, because more and more work will be performed by robots. In the transport sector, the introduction of new technology up to 2025 will not replace physical labour, but will improve planning and data processing. Artificial Intelligence (AI) will have an impact on employment in offices.

Forecasts of the total need for employment and drivers

Demand for personnel due to expansion of employment and replacement outflow between 2020 and 2025



Source: Panteia and Basis & Beleid based on PFV and WLO scenarios.

The growing demand for employees in the transport sector came to an abrupt halt in 2020 as a result of the corona crisis. Although some parts of the sector are actually seeing an increase in activities, it is anticipated that, in 2020, employment will fall by 7,000 to 12,000 jobs and in 2021, in the worst case scenario (CPB), another 5,000 jobs. The employment of drivers will fall by 4,000 to 7,000 in 2020 and, in the worst case scenario, (CPB), the number of drivers will fall by another 2,500 in 2021.

In the years that follow this, the sector will start to grow again, but in the worst case scenario, the pre-corona level will not be reached before 2025. Nevertheless, up to 2025, the sector will have to fill between 79,000 and 95,000 vacancies that result from outflow and (in favourable scenarios) a small percentage of autonomous growth. As the labour market will tighten again at a later date, the road transport sector will once again compete with other sectors for starters in the labour market and newcomers. Up to 2025, between 40,000 and 44,000 truck drivers will have to be recruited to fill the vacancies. These will mainly be truck drivers in the domestic market. In terms of other vacancies, significant growth is expected in the number of delivery van drivers and logistics staff. The delivery van drivers group is growing much faster than the number of (international) truck drivers. The growth in employment is therefore mainly at the lower end of the wage scale, whilst there is a gradual decline in the number of international drivers (at the higher end of the wage scale).

Rapid technology development is a threat, but also provides opportunities

In 2019, technological innovation was taking place at a rapid pace, and that pace only seems to be accelerating. This offers many attractive opportunities to improve business operations, strategy, efficiency and sustainability of transport and logistics. But technologies are also used outside the sector, allowing parties from other sectors to create an entrance into the logistics arena. It is therefore important to adopt a proactive approach, in order to get ahead of the game. This will protect the sector from disruption.

The main technological trend that the business community is currently in the midst of is improved utilisation of the IT and data technology that has been purchased. The rationale here is digitisation and automation of documentation, business processes and communication. Increased use of data leads to greater transparency, which leads to cost reduction and therefore to pressure on tariffs and profitability. Business Intelligence (BI) is used to process data into strategic management information, which enables process optimisation. This will be a very determinative factor in terms of competition. BI is currently still being used on a limited scale, but as from approximately 2022, this will be used by many parties. The gap between companies that do and do not participate in the data revolution will widen further still. Digitisation, automation and data-driven work mainly affect the work of office staff. Systems and scheduling systems are quickly increasing in complexity, and data analysis is playing an increasingly important role in both operational and strategic activities.

Digitisation and data analysis enable data platforms to be set up. Control towers will still be used a little in 2019, but it is anticipated that, by 2025, several larger transport and logistics companies will use a control tower as the next logical step in their (current) data management policy. In addition there will be parties from other sectors (forwarders and technical companies) that will also perform a control tower role.

Up to and including 2019, matching platform initiatives, which were established in collaboration with transport companies, achieved limited success due to the great reluctance of transport companies. But it remains a sector where supply and demand struggle with one another and where there are inefficiencies in the supply chain. As a result, the current transport sector is a good breeding ground for external disruptors, with sufficient scale to set up a platform unilaterally. An alternative state of affairs is that a platform initiative is also set up by the sector. It is anticipated that new entrants from outside the sector (before 2025) shall, in any case take control of their transport. They could possibly also start transporting and therefore pose a threat to the existing transport market.

Even before 2025, warehousing will be less labour intensive and more capital intensive. According to the World Economic Forum, by 2025 in the economy as a whole, 52% of the work will be done by robots (compared to 29% in 2018). Developments in artificial intelligence and machine learning will mainly provide an incentive for other technologies. For example, 'intelligent' and 'learning' warehouse robots can be used much more widely. Machine learning is also interesting in data processing, BI and scheduling. Scheduling systems are already on the market, where an AI module 'keeps an eye' on the schedules and learns from this. Over time, these AIs will be more capable of processing data and will be better than people at transport scheduling.

Uncertainty about the turning point in greening

In 2017, the total CO2 emissions in the Netherlands amounted to 186 Mt. Transport is responsible for 21% of those emissions, but the largest contributor isn't freight transport, but passenger transport. Cargo transport (professional goods transport and private fleet) is responsible for 3.1% of the total CO2 emissions in the Netherlands. In absolute terms, since 1990 that contribution has increased by almost 20%, but during that period almost 60% more freight was transported annually. Expectations for 2030 are that the CO2 emissions from road traffic will increase by 10%, despite an increase in the blending of biofuels and a significant increase in the percentage of electric transport (predominantly

passenger cars and delivery vans). EU's Clean Mobility Package includes more stringent CO2 emission requirements for new heavy-duty vehicles: following EU agreement, by 2025 new vehicles must emit 15% fewer CO2 emissions than in 2019 and at least 30% less by 2030. This forces manufacturers to continue looking for cleaner technologies.

Growing congestion creates unreliability

With approximately €1.3 billion in damages caused by traffic jams and delays, congestion is a significant challenge, although the problem has become less urgent since the corona outbreak. The Netherlands Institute for Transport Policy Analysis (Het Kennisinstituut Mobiliteit (KiM)) anticipates that, in five years' time, road users will have an average of 35% more travel time. In the short term, no infrastructure projects will take place that significantly improve road capacity. In fact, due to the level of maintenance of infrastructure projects, such as bridges, capacity will temporarily decrease due to maintenance work. This is a huge challenge, particularly in the Randstad conurbation. Not only because congestion is already high in this highly urbanised area, but also because municipalities here are designating new construction sites in this area at a rapid pace, in order to meet the growing housing shortage. The impending truck levy, which will take effect from 2023 at the earliest, will do little to reduce the congestion, as this pricing measure does not apply to other road traffic.

STRATEGIC DEVELOPMENT PATHS

Achieve cultural change among employers and employees

Transport and logistics are high-quality services that contribute to the customer's need for convenience and unburdening. This is increasingly important and even crucial in the value chain of clients. The sector should therefore also try to improve the image of the sector: focus on quality instead of price. Proactively use high-quality technology. This helps in the positioning as a high-quality sector and also makes the sector more attractive in terms of employee recruitment.

Encourage companies to collaborate with new partners who are driven by technology. Create a mechanism in the sector that encourages both employees and employers to accelerate adoption of new technologies. Bring knowledge to the sector that can help a response to the platform economy.

Focus on responsible market behaviour and sustainability in the chain

The new positioning is consistent with pushing forward a policy that focuses on responsible market behaviour and sustainability. Retain the regulations concerning domestic transport and extend these to all forms of goods transport, with a strong focus on extending the employment demand to the delivery service market. Commit to reducing the law enforcement limit to 0 kg; these regulations must apply to all parties that operate in goods transport and deliveries. In the DBA Act, create an exhaustive definition, in order to combat bogus self-employment that is in line with the requirements for access to the profession.
Encourage more effective enforcement through sufficient means and options for electronic and random monitoring by the government. Improved compliance with the rules can be enforced through effective - preferably joint - monitoring of compliance with the CLA, with the option of (administrative) penalties. Encourage the use of alternative fuels. Start this in urban areas.

Capitalise on social innovation

The sector must focus on increasing the inflow and limiting the outflow by paying attention to matters that are important to employees: the balance between work and personal life, influence of the working hours and the length of the working day, prevention of incapacity for work, training and permanent employment.

Expand recruitment activities to include other groups of potential employees. An initial and important step is to make the sector more appealing to people wishing to work part-time. The sector can also become more appealing to women. As a sector, tempt employees to do more training. This could be through career planning policy, or by offering more training facilities, which focus on the employee's current or future role. As is the case in other sectors, invest more in, for example, career coaches, to galvanise employees into action. Focus on the roll-out of the STL Pitstop programme within the companies, the theme of which is 'growing in your work'. Predictability of the working day, possibly through shifts or rotating shifts, is also a possibility for the sector to become more appealing to other target groups. A CLA that is in line with the market is required, which keeps pace with the developments in the sector, by continuously updating job descriptions and appropriate regulations that are in line with the nature of new work.

In addition, an active reskilling programme and continuing professional development are required to ensure that employees within the sector are aware of technological changes. Roles in the office change substantively as a result of the new opportunities available in IT, automation and data analysis. This requires different competencies. Attention should be paid to this in order to retain employees. Employee development is a shared challenge. Employees have their own responsibilities, whilst employers are responsible for creating good conditions. There is also a shortage of warehouse staff, especially low-skilled labourers (order pickers, fork-lift truck drivers and sorters). Unlike in the transport sector, in logistics robotisation offers a solution that is both deployable and affordable in the short term.

Prevent a decrease in staff capacity as a result of the corona crisis

Despite the outflow, in the short term the sector must continue to invest in training new people, because there is once again a threat of shortages in the longer term. That starts with retaining people who are at risk of losing their jobs during the corona crisis. Prevent those people from leaving the sector. This could be helped by temporary mediation by the Sectoral institute Transport en Logistiek (Sector Institute Transport and Logistics), including the hiring of colleagues, helping redundant people to find work at other companies in the sector and temporary secondment of ex-employees. Prevent other types of outflow by investing in skills and sustainable employment.

Whilst staff retention currently demands a lot of attention, the training of new people must not be neglected, especially for roles for which people are only available after extensive training. For example, the decreasing number of students in senior secondary vocational education (MBO) and student places requires more effort. Make extra efforts to maintain the inflow of young employees from 'training on the job' pathways in order to counter the 'dejuvenation' of the sector (as was the case after 2008). People are also becoming available in other sectors, which is due to redundancies as a result of the corona crisis. Additional investments in lateral inflow and aim to attract personnel who have become redundant in other sectors (including the food service industry, aviation, the coach industry and taxi sectors) by offering training courses for joining through lateral inflow.

Anticipate the post-2025 period

Many technological developments are still in their infancy and will only be available for use, or for use at a significant scale, in the longer term, after 2025. Autonomous driving will, in any event, become more important. Self-driving

vehicles have the potential to completely change transport, by initially modifying the role of labour and, at later a later stage, primarily reducing this role. However, it will be well beyond 2025 before technology, legislation, the transport sector and society are ready for driverless vehicles.

It is uncertain how other technologies will affect the sector. Block chain technology may contribute to increased collaboration between carriers. The future of 3D printing is also uncertain. The technology does not have a direct impact on transport, but if products are made 'on-site' using 3D printers, instead of in a factory, transport flows of end products will be replaced by the transport of raw materials for 3D printers. For the time-being, only relatively high-quality unique products or parts that are required immediately are eligible for production through 3D printing, but individualisation of society is driving a trend of batch production to customisation.

1. Introduction

REASON

To guarantee the long-term future of the sector, a unique collaboration between employers' organisations (Transport and Logistics Netherlands - Transport en Logistiek Nederland and the Vertical Transport Association - Vereniging Verticaal Transport) and trade unions (FNV and CNV) was set up to actively define the sector's long-term prospects. This collaboration has resulted in the social partners arriving jointly at new insights, which have received sufficient support from both sides of the table. In 2009, this resulted in the publication of the study 'Wegvervoer en logistiek Visie 2015' (Road Transport and Logistics Vision 2015), which mapped out the important themes for social partners within the sector. This study has resulted in an improvement in the labour market information available to social partners. Based on the study and monitoring the information subsequently collected based on that study, the social partners have decided on their agenda for the future. The availability of relevant information resulted in the sector being one of the first to report to the Ministry of Social Affairs and Employment in order to qualify for co-financing. A sector plan was prepared for the Ministry of Social Affairs relating to the inflow, retention and sustainable employment of employees. The professional goods transport sector was one of the first to receive a contribution from the Ministry of Social Affairs and Employment totalling €15.6 million, for the sector plans. The co-financing of the Ministry of Social Affairs and Employment allowed almost 5,000 people (joining through lateral inflow) to be trained as drivers in 2016-2018; 1,350 unemployed people were given help to find work and more than 10,000 employees were able to participate in the employability check.

The social partners require a new vision. Not only has the 'future year' now passed, there are also new developments, such as the platform economy, self-driving vehicles, longer working lives and life-long learning, which could bring about changes in the sector. This is why the social partners wish to receive forecasts and scenario analyses based on a strategic future vision, linked to an action-oriented agenda and a dynamic dashboard. This has led to the start of the study 'Vision 2025 road transport and logistics'. The main findings from this study are summarised in this report.

A steering committee formed by the social partners is responsible for directing this study. The steering committee comprises the following members:

- On behalf of FNV: Willem Dijkhuizen, Roelie Hidding and Bert Boks;
- On behalf of CNV: Tjeerd Orie, Tjitze van Rijssel and Loek Koenders;
- On behalf of TLN: Jan Boeve, Pieter Kievit, Jordy de Mooij and Rico van Aggele;
- On behalf of VVT: Lion Verhagen;
- On behalf of the Executive Office of SOOB: Jetty Haan.

AIM OF THE STUDY

The objectives of the study for social partners are:
'maintaining and/or creating a healthy sector with healthy, profitable companies and numerous employees with employment contracts; a CLA with good working conditions and a good pension scheme'.

NEED

Parties to the CLA for Professional Goods Transport by Road and Mobile Crane Rental require a shared vision of the sector's future. These parties wish to take the correct measures to be ready, in due course, for the developments taking place in the sector. They want the sector to maintain and, where possible, expand its important position within the Dutch economy. The social partners also need to ensure the affiliation of the supporters.

Vision 2025 must lead to a multi-annual strategic agenda, focusing on the themes that will have a major impact on the sector. The vision must result in a dashboard, that doesn't only have a monitoring function, but also a more forward-looking character on the basis of periodic forecasts and scenario analyses.

FOCUS

The study focuses on road transport, including truck transport, delivery van transport, post and other delivery services, and logistics. Specific segments, such as vertical transport and removal service companies are included within the scope, but because of the uniqueness of those segments, they will have specific reports. In addition, the transport and logistics sector consists of various sub-markets, such as the postal market. These sub-markets have very individual characteristics, such that the developments, conclusions and recommendations in this report do not automatically apply to all sub-markets in the sector. The horizon of the 'future year' is 2025.

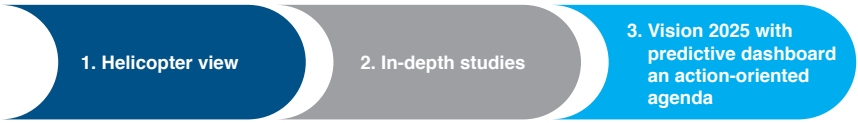
METHODOLOGY

Two research firms have been appointed by the social partners, responsible for carrying out the study jointly and equally. These firms are Panteia and Basis & Beleid.

This is a detailed fact-based study. A bottom-up data-based approach has been chosen. The study method concerned qualitative desk research, plus continuous consultation with stakeholders.

The study comprises three phases: 1. The helicopter view, 2. The in-depth studies and 3. The Vision 2025 with predictive dashboard and action-oriented agenda, see figure 1. This report describes the main conclusions and insights from all of these steps.

figure 1 Overview of project steps

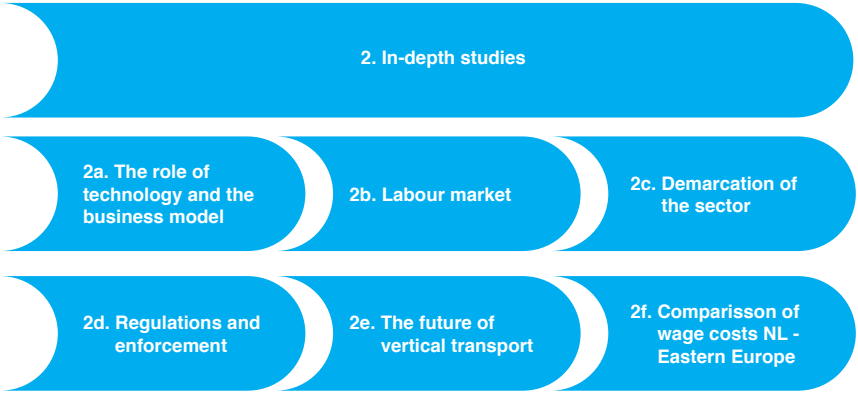


Source: Panteia and Basis & Beleid

During the **helicopter view** phase, extensive research is carried out into the sector's current performance, any developments that are underway and which important drivers are at play for the future - which address fundamental changes for employees and employers. In respect of the foregoing, various employees and employers were consulted. There were also discussions with people from outside the sector.

As part of this research, six **in-depth studies** were carried out. The subjects emerged during the 'helicopter view' phase and were decided on in consultation with the steering committee. The subjects are summarised in figure 2.

figure 2 In-depth studies



Source: Panteia en Basis & Beleid

In the third project step, in close cooperation with the social partners, **Vision 2025** was developed. Vision 2025 provides a visionary view of where the sector will be in 2025. This is based on the concepts developed by Panteia and Basis & Beleid during the research. There was also a focus on how the transport companies and logistics companies will anticipate the future in order to regain control of the chain. Supported by emerging technological capabilities, this has given direction to the vision of the transport and logistics sector.

In order to put this vision into actual effect, a strategic and innovative agenda has been drawn up, to serve as a guide en route to 2025. The strategic agenda supports the social partners and the sector in sustainably strengthening the sector's position. This strategic agenda will obviously have to be adjusted over time. The world is constantly changing, so the sector must also be constantly aware of the strategic plan. This is why a dashboard with more of a predictive nature has been set up to highlight changes at an early stage.

2. Demarcation of the road transport and logistics sector

The transport and logistics sector is in a major state of flux. The rise of e-commerce has led to a rapid growth in fulfilment, the logistics behind webshops. There are also new entrants to the transport and logistics market, from other sectors and they are changing the sector with large capital injections, mainly in the technological field. At the same time, there is more foreign interference, an increasing focus on sustainability, there is an increasing lack of space in cities and the pressure on costs is on the increase.

In the transport and logistics sector, these developments have resulted in various logistical changes:

- The emergence of new chains;
- In the road transport sector, the percentage of transport from manufacturer or trade to private end user (Business-to-Consumer transport; henceforth: B2C) is increasing significantly in comparison to transport between business customers (Business-to Business transport; henceforth: B2B) (for example, from raw materials supplier to manufacturer, from manufacturer to trade, from trade to wholesaler);
- In urban areas, in addition to motorised transport, there is a rise in other transport, such as electric transport and the bicycle courier;
- Shift from private transport to 'professional' transport. For example, consumers are increasingly having their meals, food or other products delivered to their homes and therefore shops are used less frequently;
- An increase in deliveries to the home, office, at pickup points;
- An increase in deliveries of letterbox package through the post, package and courier firms;
- Greater share of logistics activities by foreign companies in the Netherlands.

Conclusion: New forms of transport require the development of the CLA.

As the transport and logistics market is so dynamic, new players in the market often challenge the fact that they are part of the Professional goods transport by road sector. The **Dutch Road Haulage Act (Wet Wegvervoer Goederen)** (WWG) and the **scope** of the CLA are key to this.

The European Union and, therefore, the Netherlands, has rules for professional goods transport by road regarding the access to the market and admission to the profession of carrier. These rules are included in the Dutch Road Haulage Act. An important point here is that the act applies to the **goods transport by road on trucks**. This group also includes delivery vans, because the licence threshold in the Netherlands is set at 500-kg carrying capacity, whilst in Europe, a licence isn't required for loads below 3,500 kg total weight.

Dutch Road Haulage Act; content of the act

The Dutch Road Haulage Act (WWG) relates to the carriage of goods by road by truck and replaces the Road Freight Transport Act (Wet Goederenvervoer over de weg). The law stipulates that a permit is required for transport into or out of the Netherlands by truck (cars with more than 500-kg carrying capacity). A business is granted a licence if it is actually based in the Netherlands and meets the requirements for reliability, creditworthiness and professional competence.

Traditionally, the Collective Labour Agreement for Professional Goods Transport by Road and Mobile Crane Rental (hereinafter: CLA of the Professional Goods Transport sector) lays down the scope for companies that carry out transport under the Dutch Road Haulage Act (WWG) and/or transport goods by road on behalf of third parties. The Dutch Road Haulage Act (WWG) does not apply to all goods transport by road, whereas the scope of the CLA does. If companies achieve less than 20% of their turnover by transporting goods on behalf of third parties and apply a minimum equivalent CLA, the CLA does not apply to them.

Article 2
Scope

1. This agreement applies to:
   a. Every employer and employee of companies located in the Netherlands, which conduct transport operations subject to permit (vergunningplichtig) by virtue of the Dutch Transport of Goods by Road Act (Wet wegvervoer goederen), hereinafter referred to as Wwg, as most

recently published on 20 December 2016 (law gazette 518), and/or conduct transport operations, other than transporting passengers, in part or in full against payment, by road or via roads other than those open to public traffic.

b. Employers and employees in the crane rental sector, which is understood to mean all companies that operate in the Netherlands with mobile crane rental as their business activities.

2. a. The agreement does not apply to companies that:
- should apply their own collective agreement; or
- should apply their own sectoral collective agreement (Bedrijfstak-CAO); or
- have access to their own stipulated package of employment conditions.

In this respect, the following conditions apply:
- The level of the above-mentioned regulations should be at least equivalent to that of the Collective Agreement for Professional Goods Transport by road and mobile crane rental, and The company's core activity differs from professional goods transport by road, logistic services, or mobile crane rental.

2. b The company's core business differs from professional goods transport by road, logistic services, or mobile crane rental, if, as a rule, no more than 20% of its turnover is generated by means of the above-mentioned operations.
Normative in this respect, is the legal entity for which a permit for professional goods transport has been requested or granted, or within which mobile crane rental is taking place.

2. c Furthermore, also excluded are companies that, measured mainly in terms of the company's wage and salary bill, carry out construction work and also exploit mobile cranes.

This report makes a distinction between three main activities that are part of the sector:
- Goods transport by road;
- Delivery services;
- Logistical services.

A great deal of movement can be seen on the periphery of the sector, particularly in the subsectors delivery services and logistical services.

2.1 GOODS TRANSPORT BY ROAD;

As outlined in the scope of the CLA, all employers and employees of companies established in the Netherlands, that carry out transport requiring licences in accordance with the Dutch Road Haulage Act, fall under the scope of the CLA of the Professional Goods Transport sector. This therefore includes all licence holders for professional goods transport by road. The NIWO (National and International Road Transport Union) grants the licences to the 13,364 licence holders in the sector (2018) and, every 5 years, checks whether these companies meet the four qualitative requirements laid down by law: creditworthiness, reliability, professional competence and genuine business presence. In 2017, approximately 6,500 companies were affiliated with the Pensioenfonds Vervoer (PFV) (Transport Sector Pension Fund). The difference between the number of companies according to the NIWO and the Pension Fund is mainly explained by the fact that the Pension Fund only includes companies with salaried employees. In addition, all employers (approximately 200) and employees in the crane hire sector, (all businesses active in the Netherlands in which the business activity of mobile crane rental is carried out), are part of the sector and are covered by the Collective Labour Agreement (CLA) of the Professional Goods Transport sector.

The scope of the CLA applies to all companies within the professional goods transport by road sector, unless the company's core business is not professional goods transport by road, logistic services or the rental of mobile cranes (this is the case if, as a rule, no more than 20% of the turnover results from those activities) and the level of the company's own (sectoral) CLA or employee benefits package is at least equivalent to the level under the CLA of the Professional Goods Transport Sector. Companies that only transport their own products (private fleet) do not fall within the scope of the CLA of the Professional Goods Transport sector.

Conclusion: All goods transport on behalf of third parties by road fall within the scope of the CLA, irrespective of the vehicle or volume of goods.

2.2 LOGISTICAL SERVICES

In the past, the logistics sector has developed from solely the transport of goods by road to all forms of logistical services, including Value Added Logistics (VAL)

and Value Added Services (VAS). Many of these activities take place outside the domain of the CLA for transport and logistics. Logistics service providers (increasingly part of international firms) take over the storage and distribution of goods from clients. They apply their own working conditions or CLAs for employees; the CLA Transport and Logistics does not usually apply to these companies, because the scope is limited to transport 'other than the carriage of passengers' by road[2]. Only logistics service providers that are also transport companies fall within the scope of the CLA for Professional Goods Transport by Road.

Many logistics companies have their own schemes, instead of joining the national standard CLA. For a long time the CLA was primarily geared towards roles in the (international) transport sector, with long working hours starting early in the morning until late in the evening. The logistics activities that were outsourced by the shipping industry to service providers mainly took place during peak times at dawn and dusk and early and late in the week. Full-time jobs amongst operational staff are almost exceptions. For peaks in work and for working at inconvenient hours, the CLA offered no solutions during the working week and 'expensive' solutions at weekends.

The addition of a logistics paragraph to the CLA (Chapter XV) did not sufficiently rectify that problem. Companies that work in accordance with that paragraph have more flexibility in terms of working hours; employees are compensated more for working at inconvenient hours. That paragraph is applied by only one company. The irregularity and the fundamentally inconvenient working hours have resulted in a large proportion of flexible employment and migrant workers in warehouses.

In 2009, 6,500 companies with 134,000 employees were affiliated with the Pensioenfonds Vervoer (Transport Sector Pension Fund). In 2017, the number of companies decreased slightly (6,300) and the number of employees increased to 141,000. The Pension Fund also includes employees who work in companies with their own CLA, but there are also company CLAs that have their own pension scheme in the sector. Employment in 'Topsector Logistiek' is much higher: "With an added value of €66 billion[3] a year, and more than 800,000 jobs[4], the logistics sector is of significant economic importance". Almost a fifth of the employees in Topsector Logistiek therefore fall within the scope of the CLA of the

2 And the mobile crane rental companies.
3 Topsector Logistiek (Top Sector Logistics), 2017, Annual Plan 2018.
4 Topsector Logistiek (Top Sector Logistics) Monitor.

Professional Goods Transport sector and SOOB. The remainder relates to other forms of transport: inland waterway, rail, aviation, maritime, transport by pipeline and logistics activities, performed by companies that do not carry goods by road; activities such as storage and transshipment, VAL, VAS, fulfilment and e-fulfilment, supply chain management and support activities.

Conclusion: Logistical activities do not fall, or seldom fall, within the scope.

2.3 DELIVERY SERVICES

B2C transport is growing within the sector, initially amongst the large parcel delivery companies, but in the future, definitely in cities, also at new companies that do not use cars. These latter types of companies are not covered by the definition of the Dutch Road Haulage Act (WWG), because transport does not take place by truck or delivery van (with more than 500-kg carrying capacity), but they do fall within the scope of the CLA, because they carry out transport on behalf of third parties.

The delivery services segment is defined by Statistics Netherlands as 'couriers'. That comprises 6,970 companies, predominantly (5,810) sole proprietors. Only 205 companies have more than 10 employees and just 10 companies have more than 100 employees. The largest in the field of B2C parcel delivery is PostNL, followed by DHL. Both fall within the scope of the CLA but have company CLAs that are excluded from that[5]. Other delivery services (UPS, Fedex/TNT, DPD, GLS and many others) are either members of TLN or bound by the general binding declaration to the CLA for salaried employees.

The social partners have defined the scope of the CLA such that delivery services of post, meals or other products by bicycle, moped or on foot are covered by this, unless this concerns transport of only the company's own products (privately owned fleets). The foregoing was also recently confirmed by the court for postal deliveries and meal deliveries during the proceedings of FNV against Deliveroo and Sandd, but both Deliveroo and Sandd have appealed against this ruling. Whilst the appeal is ongoing, compliance with the CLA of the Professional Goods Transport sector cannot be demanded, because payment of the difference could cause problems if a different ruling is delivered. The decisive factor

5 As a corporation, PostNL has traditionally been exempted from the mandatory application of the CLA of the Royal Dutch Transport Federation (Koninklijk Nederlands Vervoer), which in turn was exempted from mandatory application of the CLA of the Professional Goods Transport sector (BGV) (until those two CLAs were combined in 2017). For that reason, since 2017, PostNL as a corporation has again been exempted from the generally binding declaration.

is that goods are transported (for payment) on behalf of third parties; the way in which these are transported is irrelevant. This segment shows strong growth. Deliveries are usually performed by independent delivery workers, who are not salaried employees. Bicycle couriers are sometimes employed by restaurants; they do not fall within the scope of the CLA because the restaurants have a privately owned fleet.

Numbers of bicycle or moped couriers aren't only increasing amongst newcomers. The shift in vehicles is also taking place within companies that traditionally fall within the scope of the CLA (or that have dispensation). The CLA must respond to that trend in the sector towards smaller shipments and smaller and different vehicles.

Conclusion: it is important that the CLA and, by extension, SOOB, the 'Sectorinstituut Transport en Logistiek[6] *and other sector initiatives remain in line with the developments in the sector and continue to respond to changes in the sector.*

In terms of the delivery of post (and postbox parcels) sector, Sandd has been PostNL's only national competitor since 2010. Sandd (together with subsidiary Van Straaten Post) organised the lion's share of the work with self-employed persons through contracts of agreement until, on 1 January 2018 - after many years postponement, Sandd had to comply with the obligations in the Postal Decree (Postbesluit) to carry out at least 80% of deliveries through employment contracts. In 2019 PostNL announced that it would acquire Sandd, including its employees. According to Statistics Netherlands, 80,400 people work in the Post and Couriers sector (59,100 FTE)[7].

Conclusion: the sector is growing beyond the scope of the Road Freight Transport Act (Wet Goederenvervoer over de Weg).

6 In this report, this is henceforth referred to as the Sectoral Institute
7 Source - information from Sandd and PostNL.

3. Social significance of transport and logistics

Transport and logistics are essential for the workings of an economy. After all, production sites and the places where products are 'consumed' are often far apart. It's for good reason that people say: "without transport everything comes to a standstill". Nevertheless, it isn't particularly easy to capture the social significance of transport and logistics in traditional economic indicators. Perhaps only a small number of people are directly affected, but everyone depends on transport to some degree.

A good transport system is important for the workings of an economy. Paragraph 3.1 elaborates on the positive effects of this. Conversely, transport also demands something from society. Examples are environmental effects, road safety effects and spatial investments. These effects are described in paragraphs 3.2 to 3.4.

3.1 ECONOMIC CONTRIBUTION

The transport sector imports and exports goods; it is the foundation of international trade. In addition, companies store goods temporarily, so that they can subsequently be delivered to the end customer at the required time. This concerns, for example, the delivery of a package, the supply of shops and the food service sector and the transport of semi-finished products for industry and trade.

Turnover and employment

In 2017, the 'transport and storage' sector (including transport by water and rail, service provision and passenger road transport) achieved (according to Statistics Netherlands) a turnover of more than 85 billion Euros. This turnover includes more than just the turnover from road transport and logistics. If we take a closer look at road transport and related activities, the picture is as follows: in 2017, road haulage accounted for more than €21.5 billion in turnover and the removals industry €0.6 billion. Turnover, with storage, was €5.0 billion, with services for land transport €1.5 billion, by forwarders €17.9 billion and by postal and courier companies €5.7 billion (see table 1).

table 1 Turnover, number of employed persons and added value for each activity in road transport and related logistics

Activitities	Turnover (x billion Euros)	Number of employed persons (x1,000)	Added value (x billion Euros)
Goods transport by road (excl. removals transport)	21.5	125.6	9.5
Removals transport	0,6	4,6	0,3
Storage	5,0	26,7	1,8
Services for land transport	1,5	12,7	0,5
Intermediaries - cargo transport	17,9	53,6	6,3
Post and couriers	5,7	44,8	2,1
Total road transport and logistics	52,2	268,0	20,5

Source: Turnover (Statistics Netherlands (CBS), 2017), persons employed (Statistics Netherlands (CBS), 2017), TW (Panteia and Basis & Beleid, based on data from Statistics Netherlands (CBS), 2016)

In the Netherlands, total employment in the logistics sector is much higher than in the Transport and Logistics sector, as defined in the CLA. According to Topsector Logistiek, there are more than 800,000 jobs in the logistics sector. These are not only companies that transport or transship products, but also logistics and transport functions within shipping companies. In 2017, (according to Statistics Netherlands), the number of employees in the 'transport and storage' sector (i.e. excluding the shipping industry) amounted to approximately 500 thousand people, but this figure includes people who work in the transport sector with other modes of transport (rail, inland waterway, sea and air). If we take a closer look at everyone associated with road transport and logistics, the number of employees amounts to approximately 268,000 individuals. Taking a closer look at the number of employees within the SOOB domain, according to the PFV, in 2018 more than 150,000 individuals were active. These employees are distributed as follows across the different roles: around 86,000 drivers and 66,000 ground staff.

ADDED VALUE

According to Topsector Logistiek, the added value of 'Transport and Transshipment' amounts to more than €26 billion. 'Storage and Warehousing' accounts for an added value of more than €21 billion and 'Chain Management and Supply Chain Management' have an added value of almost €19 billion. This added value arises from activities that are performed not only on behalf of logistics service providers within the transport and storage sector, but also elsewhere (industry,

construction, hospitals, wholesalers and retailers). Therefore, in a broad sense, the transport and logistics sector contributes almost 9% to the total Gross Domestic Product (GDP) in the Netherlands.

EQUIPMENT AND DISTRIBUTION CENTRES

According to Statistics Netherlands, in 2018 there were 139,656 freight vehicles that exceeded the total weight of 3.5 tonnes. Professional goods transport by road owns almost 80% of these vehicles. This is evident from the number of NIWO licences[8] (107,357) issued in that same year. A special type of truck is the longer and heavier combination truck (LZV or EcoCombi truck). In 2018, there were almost 1,500 LZVs.

According to Statistics Netherlands, in 2018 a total of approximately 900,000 delivery vans were operating in the Netherlands. Of these 900,000, more than 40,000 delivery vans are active in transport and storage (4.4%). Measured in kilometres driven, the delivery vans that operate in transport and storage account for 8% of the total kilometres driven by delivery van. In 2017, there were 1,530 distribution centres (DC) in the Netherlands. The average size of a DC was 19,000 square metres.

Conclusion: Road transport and logistics is an important sector for Dutch economy.

3.2 ENVIRONMENTAL EFFECTS

Goals

The new government took office in October 2017: the Third Rutte Cabinet. The coalition agreement 'Trust in the Future' (Vertrouwen in de Toekomst), stated that a reduction in CO2 emissions will be one of the main priorities of the new government's period in office. That is why the CO2 reduction target for 2030 has been increased from 40% (as stipulated by the EU) to 49%. Central Government will deploy two main resources in order to achieve this stringent target:

- The Climate Act (Klimaatwet), in which the Cabinet plans to outline the climate and energy policy through to 2030;
- A new Climate Agreement (Klimaatakkoord), which sets out the commitment of all social partners.

8 The number of permit certificates can be seen as an indication of the number of vehicles owned by Dutch professional road hauliers.

The current Energy Agreement (Energieakkoord) was concluded in 2013 and will expire in 2023. The new Climate Agreement will not affect the implementation of the current Energy Agreement, which will therefore continue in its existing form. It has been agreed in the coalition agreement that, as from 2019, an additional €300 mln will be made available annually in the State Budget to finance pilots using CO2-saving technologies. On 9 October 2018, the Court in The Hague confirmed the ruling of the 2015 Climate Case which was brought by Urgenda: because the State must protect citizens against the consequences of climate change, the Netherlands must reduce greenhouse gas emissions by at least 25% by 2020 relative to 1990.

DEVELOPMENT OF CO2 EMISSIONS

In 2018, the total CO2 emissions in the Netherlands (excluding aviation) amounted to 181 Mt. The transport sector was responsible for 21% of those emissions. Within the transport sector, road traffic accounts for 80% of all CO2 emissions; that is 17% of the total emissions in the Netherlands. In the road transport sector, cargo transport (trucks and tractors[9]) accounts for 19% of the CO2 emissions. Cargo transport equates to 3% of the total CO2 emissions in the Netherlands[10], inland waterways 1%, rail traffic 0.04% and maritime shipping 3%.

Emissions in 2018 were 181 Mt (actual emissions). The corrected total emissions in the Netherlands in 2018 was 161 Mt, meaning that year was comparable to 1990, the benchmark year for a reduction in emissions. This means that sustainability appears to be at a standstill, but in 1990 the GDP was €258 billion and, in 2018, €744 billion. In 2018, road traffic as a whole actually emitted approximately 31 billion kg of CO2. That is 25% more CO2 emissions than in 1990 (corrected for IPCC 12%), but also 42% additional kilometres were driven. In 2018, cargo transport emitted approx. 6 Mt of CO2. In 1990, this was approximately 5 Mt, but during that same period the number of tonne-kilometre grew from 37 billion to 60 billion (+62%). In total, CO2 emissions of road transport therefore rose by approximately 10%, but per tonne-kilometre, there was an average decrease of 43%. In that same period, total delivery van emissions have doubled: from 2 Mt of CO2 to more than 4 Mt.

9 Excluding delivery vans.

10 According to the IPCC guidelines, which are used by the EU and the UN. In the corrected figures in accordance with the IPCC guidelines, CO2 from natural sources (with a short carbon cycle) such as biomass, biogas and liquid biofuels, is not taken into account. This is why the corrected emissions are lower than the actual emissions.

table 2 CO2 emissions in cargo transport in comparison to road transport, transport and total Netherlands, 2018

Region or (sub)sector	CO2 emissions (in Mt [11]	
Total Netherlands	181	100%
Total transport sector	38	21%
Total road transport	31	17% of total or 80% of the transport sector
Total cargo transport	6	3% of total or 19% of road traffic
Total delivery vans	4	2% of total or 14% of road traffic

Source: Statistics Netherlands (CBS)

It is anticipated that, by 2030, CO2 emissions from road traffic will increase from 30 Mt to 33 Mt[12]. This takes into account the effects of the current policy of blending biofuels and a significant increase in the percentage of electric transport (predominantly passenger cars and delivery vans); additional policy will be required to achieve this.

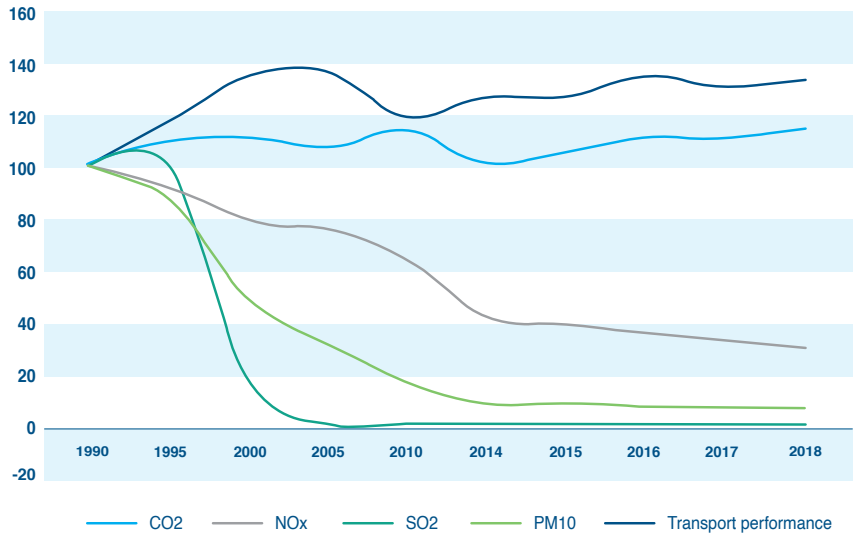
Due to the coronavirus lockdown, global CO2 emissions in the transport sector and other sectors fell dramatically as from March 2020. In the Netherlands, emissions in the first quarter were 8.7% lower than in 2019, and even lower in the second quarter. If this is corrected to take into account the warm weather during this period, there is still a decline of 7.5%. However, this decline is not indicative of a structural change. When China's coronavirus lockdown was lifted in May 2020, CO2 emissions immediately increased to higher levels than pre-pandemic levels and, in September 2020, scientists reported that greenhouse gas emissions had (almost) returned to pre-corona levels.

AIR-POLLUTING EMISSIONS ON THE RIGHT TRACK

These emissions from freight vehicles have decreased considerably as a result of the introduction of Euro standards.

11 CO2 emissions based on actual emissions.
12 Panteia, 2017, Stagnation in CO2 reductions in Transport & Logistics.

figure 3 Trend of transport performance and freight vehicle emissions (exceeding 3.5 tonnes) for each substance (1990 = 100)



Source: Statistics Netherlands (CBS)

Road transport has caught up with inland shipping in terms of air pollutants. The emission of nitrogen oxides (NOx) per tonne-kilometre is virtually the same for both modes of transport. As regards particulate matter (PMx), road transport per tonne-kilometre in both bulk transport and container transport scores even better than the inland waterways.

table 3 Comparison between road transport and inland shipping for CO2, particulate matter and nitrogen oxides1[13]

Type of goods	Mode of transport	Type of vehicle/vessel	CO2	PMv[14]	NOx
			g/tkm[15] WTW[16]	g/tkm TTW	g/tkm TTW
Bulk goods and general cargo	Road	Large delivery van	1,342	0.224	6.30
		Truck (10-20 tonnes)	259	0.026	1.75
		Tractor-trailer	82	0.007	0.29
	Inland shipping	Rhein-Herne canal ship	38	0.018	0.47
		Large Rhein canal ship	22	0.009	0.26
Containers	Road	Tractor-trailer (2 TEU)	102	0.008	0.36
	Inland shipping	Rhein-Herne canal ship (96 TEU)	45	0.022	0.56
		Large Rhein canal ship (208 TEU)	27	0.011	0.31

Bron: CE Delft, STREAM Goederenvervoer 2016 (STREAM Freight transport 2016)

However, unlike inland shipping, not only does road transport produce particulate matter through the combustion of fossil fuels, but also through factors unrelated to combustion. The ratio of the two sources of particulate matter is approximately 50:50. The main sources of non-combustion-related particulate matter are wear and tear of brake discs, tyres, the road surface and resuspension[17] of dust on the road surface[18].

The picture of the sector is only complete when delivery vans are included. The CO2 emissions of a large delivery van measured in grams per tonne-kilometre are much higher than that of a truck. The same applies for particulate matter and nitrogen oxides. The reason for this is that less tonnage is carried by a delivery van and therefore emissions per tonne-kilometre are higher.

13 The values are influenced by being measured in the tonne-kilometre unit of measure. This explains the significant difference between CO2 emissions of a truck and a tractor-trailer. On average, a tractor-trailer carries a heavier load and travels more kilometres annually than a truck.
14 PMv is the abbreviation for PM10 emissions (particulate matter) through combustion.
15 g/tkm = grams/tonne-kilometre.
16 WTW = Well-To-Wheel; Concerns emissions that are released during fuel extraction, transportation, the fuel refining process and whilst the vehicle is in use. TTW = Tank-To-Wheel: emissions that are produced from the combustion of fuel whilst the vehicle is in use.
17 Resuspension means reintroducing into the air particulate matter and dust particles that have been deposited on the ground.
18 Joint Research Centre (JRC) of the European Commission, 2014, Non-exhaust traffic related emissions: Brake and tyre wear PM

Alternative fuels

The size of the market for alternative fuels in freight vehicles remains very small. In 2020, diesel accounted for 97.9% of the market. The other fossil fuels, such as petrol and LPG accounted for 1.3%. Natural gas (CNG and LNG) had a share of 0.6%. In 2020 just 216 electric trucks were on the roads (larger than 3.5 tonnes), 4 hydrogen-powered vehicles and 3 running on alcohol. A similar picture can be seen for delivery vans, although in this case 0.4% (4,621 electric delivery vans) are powered by electricity.

table 4 Size of the alternative fuels in the freight vehicles market, 2020

Type of fuel	Freight vehicles larger than 3.5 tonnes		Delivery vans	
	Number	Percentage	Number	Percentage
Diesel	207,380	97.9%	1,060,459	93.8%
Benzine	2,290	1.1%	46,680	4.1%
CNG	792	0.4%	4,249	0.4%
LPG	494	0.2%	14,792	1.3%
LNG	621	0.3%	6	0.0%
Electricity	216	0.1%	4,621	0.4%
Hydrogen	4	0.0%	1	0.0%
Alcohol	3	0.0%	9	0.0%
Total	211,800	100.0%	1,130,817	100.0%

Source: Panteia and Basis & Beleid based on RDW (the Netherlands Vehicle Authority)

Conclusion: Attention of the policy shifted from limiting air-polluting emissions to CO2 reduction. The goods transport by road sector contributes significantly to CO2 emissions and is only in the early days of an energy transition.

Efficiency

A lot can still be gained in terms of transport efficiency. The percentage of empty kilometres is, for example, 26%[19] of the total number of kilometres and the percentage of empty trips, based on the total number of trips, is 35%. An average truck is stationary for approximately 71% of the time.

3.3 ROAD SAFETY EFFECTS

Accidents involving trucks or delivery vans often have serious implications, particularly for the 'other party'. Truck drivers can cause accidents by unsafe be-

19 Statistics Netherlands (CBS)

haviour whilst driving (loss of cargo, overturning or jackknifing). Accidents also occur because other road users take insufficient account of a truck's specific properties (blind spot, the rear of the truck swinging out). Accidents involving delivery vans are also often more serious than accidents between passenger cars. That is because delivery vans may be smaller than trucks, but they are still larger and heavier than passenger cars. They also have less visibility to the rear.

table 5 Trend in the number of road deaths involving a delivery van or truck[20]

		2011	2012	2013	2014	2015	2016	2017	2018
Delivery van[21]	Occupants	18	16	15	7	15	23	19	20
	'Other party'	57	52	43	35	33			
Truck	Occupants	3	7	7	6	10	6	6	6
	'Other party'	74	66	78	69	66			
Total trucks and/or delivery vans (excl. overlap)		142	135	133	113	122			
% of total registered road deaths		26.0	24.0	27.0	23.7	23.0			

Source: Ministry of Infrastructure and the Environment, Statistics Netherlands (CBS)

In the Netherlands there are around six times more delivery vans than trucks on the roads. Nevertheless, table 6 shows that there are more casualties in the 'other party' group of trucks than delivery vans. This is partly because (per vehicle) trucks travel more kilometres. There are also more foreign trucks on the roads. As a result, the total traffic performance of delivery vans is just 2.5 times more than that of trucks. The Institute for Road Safety Research (SWOV) therefore takes 'risk' as a unit of comparison: the number of deaths in terms of the 'other party' per billion vehicle kilometres travelled by the truck or delivery van. This table includes the risk calculations for the 'other party' of trucks and delivery vans with, for purposes of comparison, the risk calculations for the 'other party' of passenger cars[22]. These figures show that, in comparison to passenger cars, the mortality risk of the 'other party' of trucks is almost seven times as high. The mortality risk for the 'other party' of delivery vans is twice as high as that for the 'other party' of passenger cars.

20 Accidents involving both a delivery van and a truck are only counted once in the total.
21 This concerns all delivery vans. Not only the delivery vans, therefore, used in transport and logistics
22 Institute for Road Safety Research (SWOV), 2016, Road Safety Monitor 2016.

table 6 The mortality risk among occupants and the 'other party' per billion vehicle kilometres travelled per vehicle (average for the period 2010 – 2015)

Vehicle	Mortality risk of the 'other party'	Mortality risk of occupants
Delivery van	2.7	0.9
Truck	10.4	0.9
Passenger car	1.4	2.0

Source: Ministry of Infrastructure and the Environment and Statistics Netherlands (CBS)

Conclusion: Annually there are more than one hundred road deaths involving a truck or delivery van.

3.4 SPATIAL NEED

Infrastructure

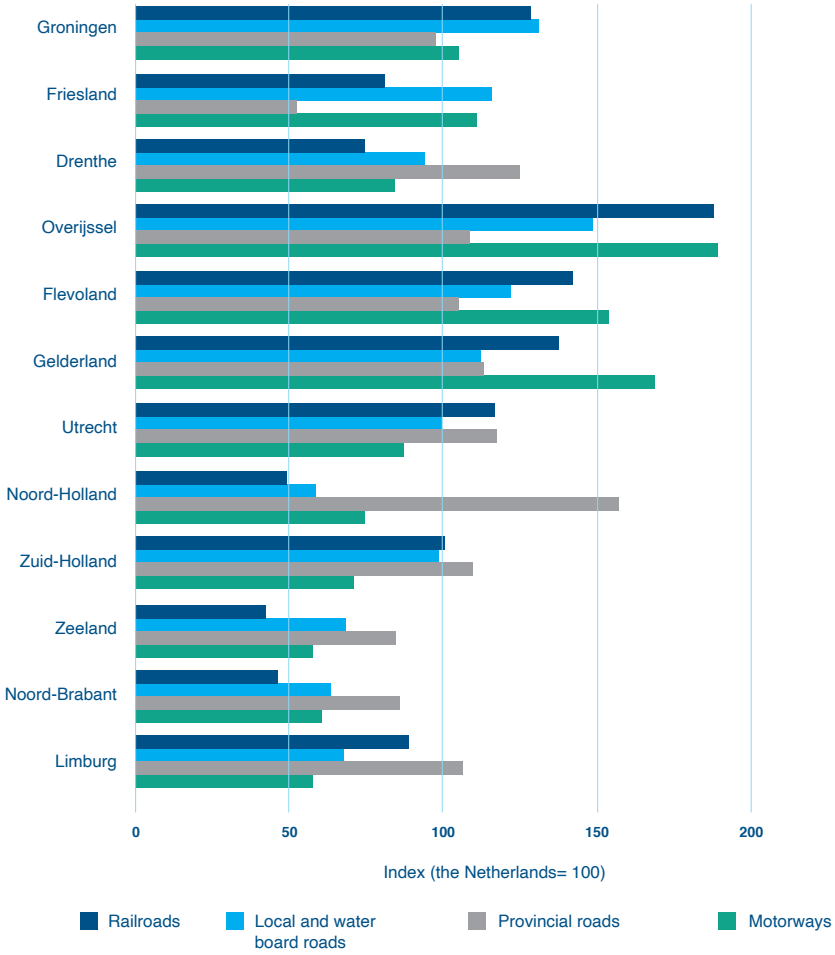
There are almost 140,000 km of public roads in the Netherlands. Almost 5,400 kilometres of those roads are motorway, almost 7,800 kilometres are provincial roads and the majority are local or water board roads. Since the economic crisis, the government has invested heavily in new roads and motorways. The provinces with above-average infrastructure are South Holland, Utrecht and North Holland (see figure 4).

Due to the economic crisis which started in 2008, congestion pressure – measured in the number of kilometres multiplied by the number of minutes that the congestion lasts – has decreased significantly in the subsequent years. However, since 2014, congestion increased again (see figure 5). In 2018 the transport sector suffered damages to the tune of approximately €1.4 billion as a result of congestion23. Yet there is still sufficient capacity, for example during the nighttime or the weekend. Congestion is mainly caused by the peak load during rush hour.

Conclusion: Despite investments in new roads, since 2014 problems with congestion have increased annually.

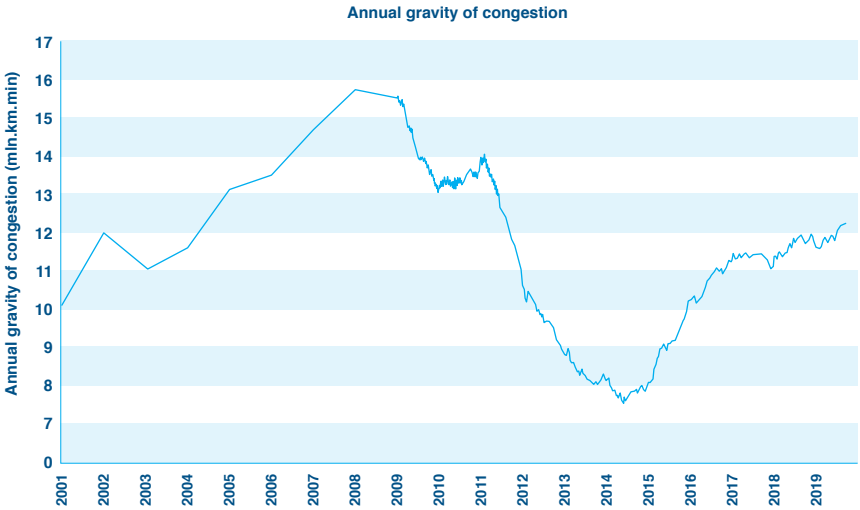
23 Panteia, 2019, Economische wegwijzer 2019 (Economic Roadmap 2019)

figure 4 Network density of line infrastructure per province, 2018



Source: Nationaal Wegenbestand (National Road Database), Statistics Netherlands (CBS)

figure 5 Trend in congestion (in mln kilometre minutes)



Source: RWS, November 2019

4. Situation in the road haulage sector

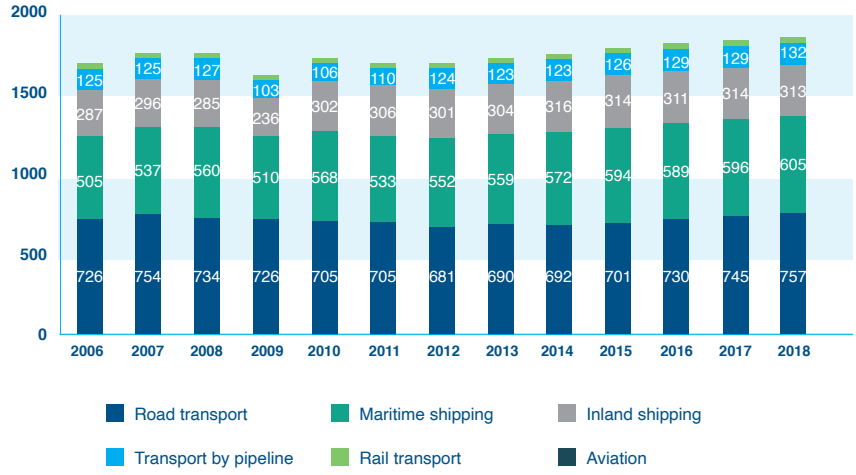
4.1 DEVELOPMENT OF TRANSPORT DURING THE PERIOD 2006 - 2020: DECLINE, GROWTH AND CORONAVIRUS

Modal Split

The volume of goods transport is linked to the development of the economy. But not only the development of the economy is decisive, the development of the share of goods transport in total transport is also important. Goods can be transported in different ways: by road, water, rail or air. Liquid raw materials and chemical products can also be transported by pipeline.

The modal split shows the distribution of the total transport across these modalities. Figure 6 shows how this has developed since 2006. This figure shows the share in transported tonnage (in, to and from the Netherlands): this results in a high share for modes of transport that transport bulk goods with a low value and a low share for modalities that transport more high-value goods (with air freight at the top).

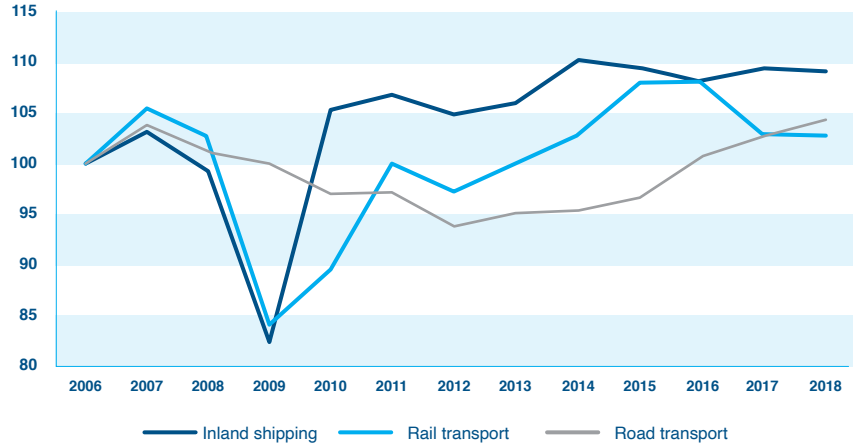
figure 6 Modal split based on transported tonnage (in millions of tonnes)



Source: Statistics Netherlands (CBS)

The development of road transport reflects, on the one hand, the development of the economy and, on the other, the development of the share of road transport in relation to other modes of transport. The economic crisis, which became visible in 2008, immediately translated into a sharp decrease in transport by rail and inland shipping. The consequences for road transport were much more gradual, but also lasted longer.

figure 7 Development in goods transport (index based on transported tonnage) per mode of transport (2006 = 100)



Source: Statistics Netherlands (CBS)

The reason that inland shipping was hit so hard by the crisis is that businesses started eating into their stocks of mainly raw materials. These had mainly been transported by inland waterway. Recovery has also come much faster. Because there were no more stocks to eat into, transport had to resume. Road transport, on the other hand, transports more end products which, in the event of a crisis, follow consumption and consumer confidence on a one-to-one basis. That recovery has taken much longer. Due to the sharp decline in inland shipping and rail, the share of road transport initially increased to 45% in 2009. Since both modes of transport quickly recovered and the decline in road transport persisted for much longer, the share of professional goods transport by road decreased to 39% by 2015. Only after that point was there any recovery in the share of road transport.

table 7 Development in modal split

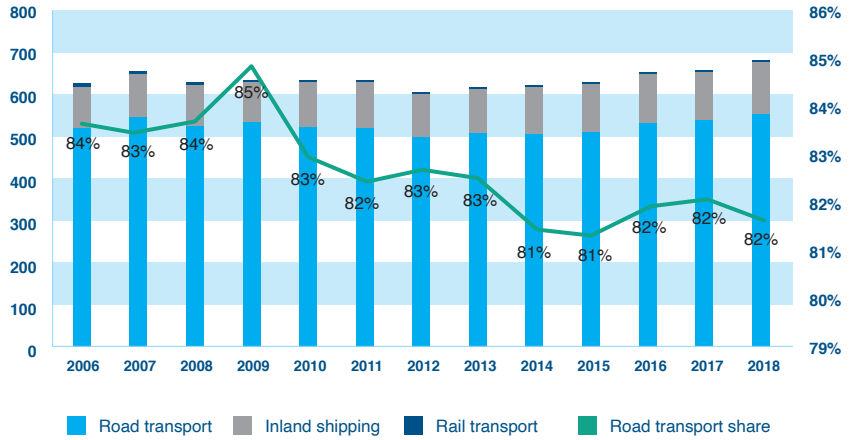
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Inland shipping	16%	15%	18%	18%	18%	18%	18%	18%	17%	17%	17%
Aviation	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Transport by pipeline	7%	6%	6%	6%	7%	7%	7%	7%	7%	7%	7%
Rail transport	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Road transport	42%	45%	41%	42%	40%	40%	40%	39%	41%	41%	41%
Maritime shipping	32%	32%	33%	31%	33%	33%	33%	33%	33%	33%	33%

Source: Statistics Netherlands (CBS)

Despite the greater flexibility of road transport, forwarders, governments and carriers are looking for more environmentally-friendly solutions to reduce congestion and environmental impact. This translates into, among other things, the construction of multimodal terminals. Consequently, road transport did not benefit proportionately from the economic recovery over the recent period.

If we look only at domestic goods transport, the share of road transport is much higher. The same trend can also be observed in domestic transport, however: a higher share in 2009 due to the decrease in inland shipping and rail and after that an erosion of the share until 2015, followed by some growth again in the years after that.

figure 8 Development in inland goods transport by mode of transport based on transported tonnage (in millions of tonnes)



Source: Statistics Netherlands (CBS)

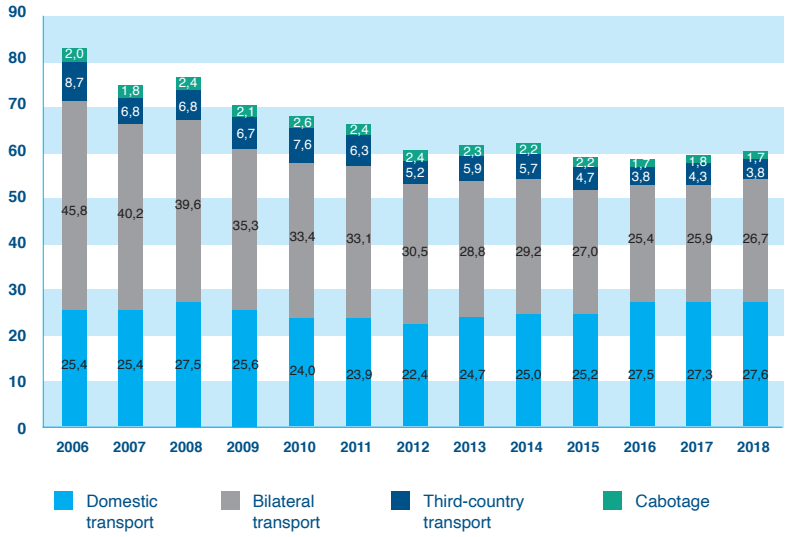
CARRIAGE OF GOODS BY ROAD

It is not enough to take only the development in transported tonnage as a starting point in outlining developments in the sector. The distance over which that tonnage must be transported is also important. Transport performance is measured in cargo tonne-kilometres.

Figure 9 shows the development in transport performance since 2006. The low point was not reached until 2016. Until 2017, this development was mainly due to the development in the flag share of Dutch registration numbers in foreign transport. It was only in 2017 that international road transport by Dutch carriers grew for the first time in more than 10 years, with the exception of 2014 where marginal growth can also be seen. International transport also increased in 2018. Domestic transport has grown almost continuously since 2012.

As a result of the lockdown in March 2020, the total transport volume decreased. There were sectors that grew strongly, however, such as supermarket distribution and parcel services. In the medium term, goods transport by road will decline as a result of the economic downturn.

figure 9 Development of transport performance by Dutch carriers (in billions of tonne-kilometres)



Source: Statistics Netherlands (CBS)

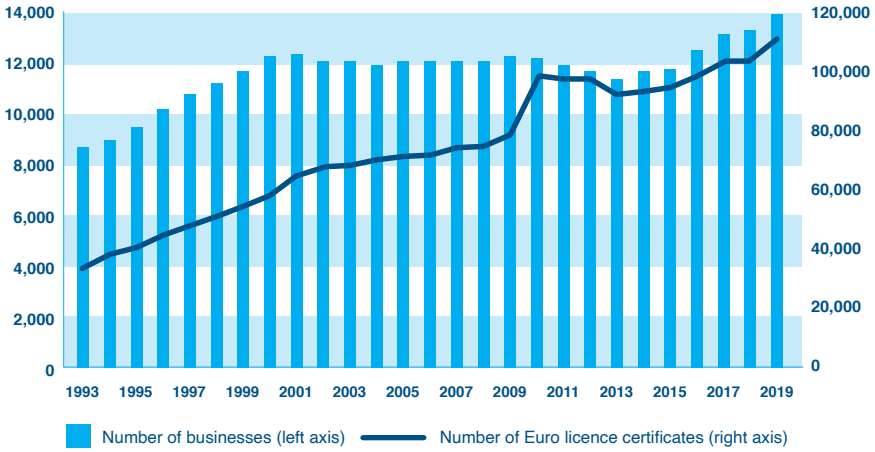
Growth in national transport

The transport performance of domestic transport by Dutch carriers reached its lowest point in 2012. The transport performance in domestic transport therefore shows growth again from 2012, but there is also a shift. Carriage of goods by road is increasingly shifting from B2B to B2C. With the rise of e-commerce, the sector has grown (partly at the expense of retail distribution) in the delivery of products to consumers (B2C). The corona crisis has caused this to occur even faster than expected. E-commerce and home delivery are increasingly common. It is part of the 'new normal'.

Number of businesses

The development of the sector can also be derived from developments in the number of licences. A licence is required for the carriage of goods for third parties (professional goods transport) in a vehicle with a carrying capacity of more than 500 kg. Every business operator needs a licence and a licence certificate is issued for every truck if the business operator meets the requirements. The limit above which a licence is required in Europe is 3,500 kg total weight. Transport by delivery van often does not require a licence in Europe. In the Netherlands, a licence is required from carrying capacity of 500 kg. Delivery vans meet that criterion, unless the vehicle is administratively 'back-tested'. That does mean, however, that the delivery van may not carry more than 500 kg. The number of businesses and the number of licences began declining after 2009 and only showed growth again from 2013. In recent years, growth has also come from self-employed individuals engaged in parcel delivery.

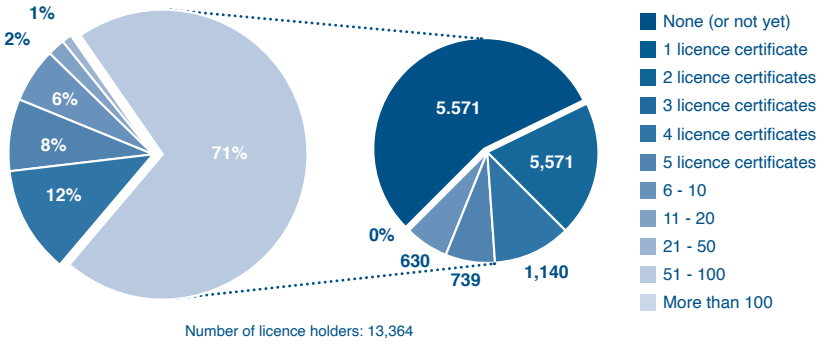
figure 10 Number of licence holders and licence certificates



Source: NIWO

The average number of licence certificates was around 8 per business in 2019. The sector is made up of a very high number of businesses with only one or a few licence certificates (see Figure 11). Although there is a shift towards larger businesses, the sector retains the character of an SME sector[24].

figure 11 Licence holders by business size on 1 January 2019



Source: NIWO

24 SMEs are defined here as businesses having fewer than 250 employees.

The impact of the corona crisis

In September 2020, the first peak of the corona crisis had passed but infections were on the increase again. It is difficult to predict what will happen next. The road transport sector was hit hard by the crisis. According to the IRU, road haulage companies worldwide will make an average of 17% less turnover than in 2019. This corresponds to €64 billion in lost turnover for the 900,000 mainly small and medium-sized carriers in the EU, and €550 billion worldwide. The European Commission has drawn up an EU Recovery Plan as part of the next Multiannual Financial Framework (2021-2027), in which €750 billion has been made available for the recovery of the economy. The IRU is lobbying to make 10% of this amount (€75 billion) available for road transport companies in the EU.

The picture in the Netherlands is similar to that of the IRU. The TLN carried out a periodic survey among transport operators. The following results emerged from the fifth corona monitor (17/06/2020):

- 72% of the transport companies were facing loss of turnover;
- 15% of the transport companies were expecting to having to let go of employees;
- 63% of them would be dismissing less than 10% of their workers;
- 25% of them would be dismissing 10-19% of their workers;
- 12% of them would be dismissing 20% or more of their workers.
- The average loss of revenue compared to the same period in 2019 is 25.2%;
- 38% of businesses expect to (have to) make use of emergency and assistance measures;
- When transport operators were asked to rate on a scale of 1 to 10 the likelihood of their business surviving, with 1 being ‘unlikely’ and 10 ‘likely’, the average score was 8.1.

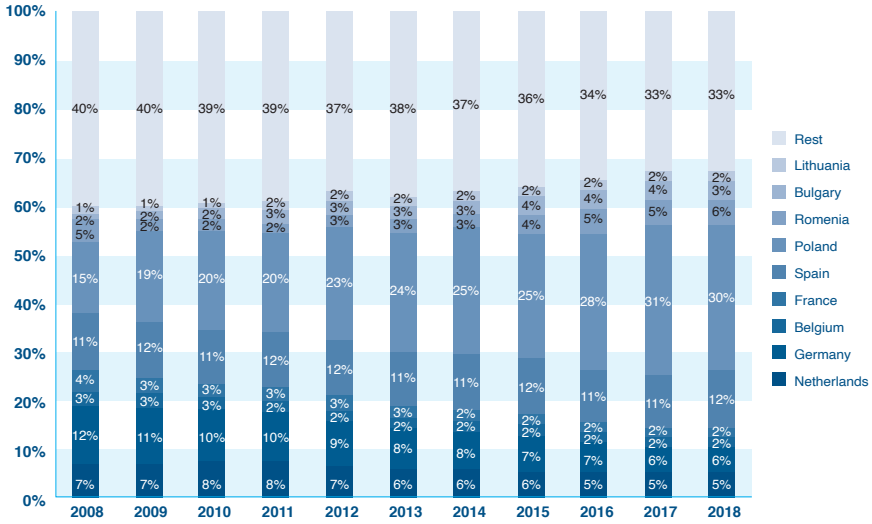
International transport is facing an additional problem from the corona crisis, alongside drop in demand: many borders were closed and/or checks were again being carried out. In May 2020, the European Commission announced its intention to phase out the restrictions. It wants international goods transport to be able to continue as unhindered as possible, but further spread of the virus must be prevented in this process.

4.2 INTERNATIONAL TRANSPORT

Decrease in the share of international transport

The important role of Dutch businesses in international transport is still subject to erosion. International transport decreased in volume (measured in tonne-kilometres) between 2008 and 2018 and has been smaller than domestic transport since 2015. The share of Dutch businesses in international transport in the European Union is decreasing while the flag share of other countries (especially Poland and other Eastern European countries) is increasing (see Figure 12). The flag share expresses the proportion of international transport carried by trucks with registration plates from the countries in question. It is clear that Western European registration plates are losing ground. Our neighbouring countries (Belgium and Germany) are losing even more ground than the Netherlands. But in terms of total European transport performance, the **Netherlands, too, saw its share decline from 7.1% in 2008 to 4.9% in 2018**. The share of Eastern European countries is growing, with Poland at the forefront. Poland has doubled its share in the European transport performance, while the EU's international transport service in 2018 was already 10% higher than in 2008.

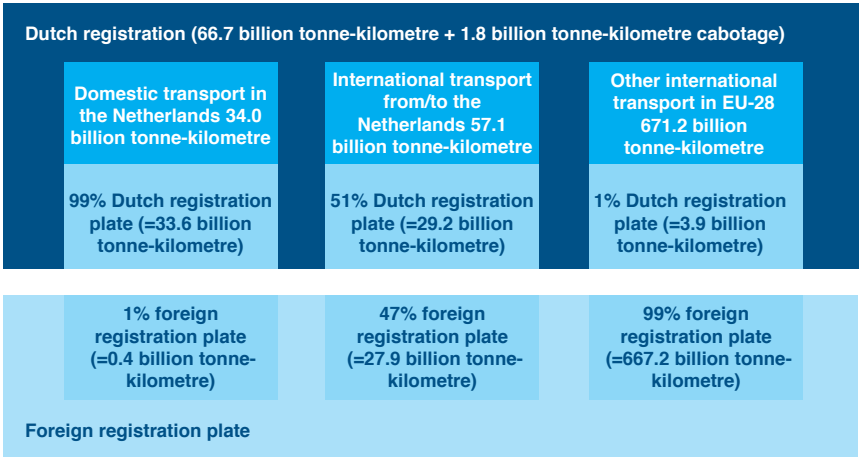
igure 12 Flag share in international transport in the EU based on transport performance



Source: Eurostat

Figure 13 illustrates that Dutch carriers are dominant in domestic transport, transport just over half of the bilateral transport with the Netherlands and play hardly any role any more in other international transport.

figure 13 Transport by registration plate and territory (2018)



Source: Panteia and Basis & Beleid based on Statistics Netherlands (CBS) and Eurostat

Within international transport, a distinction can be made between long-distance and short-distance cross-border transport. The limit here is set at 300 km one way. In 2018, only two-thirds of total international transport (22.4/35.0) involved transport over distances more than 300 km. The remaining one-third was transport over distances less than 300 km. Between 2006 and 2018, short-distance international transport increased by 0.6 billion to 12.6 billion tonne-kilometres, while long-distance international transport decreased by almost 18 billion to 22.4 billion tonne-kilometres.

table 8 Total transport performance by road with Dutch registration plates (excluding delivery vans) in 2018

	Domestic transport	International transport from/to the Netherlands up to 300 km	International transport from/to the Netherlands in excess of 300 km	Third-country transport	Cabotage
Transport performance (in billions of tonne-kilometres)	33.6	12.6	16.6	3.9	1.8
Share in total	49%	18%	24%	6%	3%
	Single-day transport		Multi-day transport		
Transport performance (in billions of tonne-kilometres)	46.2		22.4		
Share in total	67%		33%		

Source: Panteia and Basis & Beleid based on Statistics Netherlands (CBS) and Eurostat

Of the 68.5 billion tonne-kilometres of transport service of total road transport (domestic and international), two thirds is now over a distance of less than 300 kilometres (see Table 8). Because the average speed and load factor in international transport are higher, the ratio of drivers providing mainly short-distance transport and the number of drivers still providing long-distance transport has risen to 80%/20%[25].

Table 9 shows that based on the official registration of cabotage journeys, Dutch registration plates are only active in international transport in the Western European countries. This also shows that Polish carriers are now in second place (after neighbouring Germany) in cabotage transport in the Netherlands and well ahead of third-country carriers in relation to the Netherlands.

Profitability

The decline in transport performance is caused by the fall in international transport. While domestic transport service (number of tonne-kilometres) in 2017 was almost the same as in 2006, international transport performance was more than 40% lower. The Netherlands' place in international transport has been taken over by Eastern European countries, with Poland at the forefront. As a result of fierce competition with foreign carriers, the so-called net surplus in businesses has never been positive since 2000.

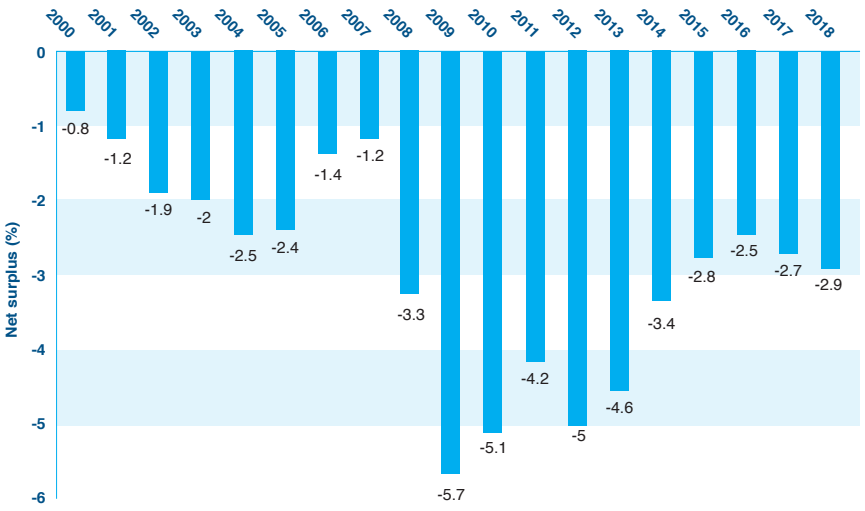
25 Presentation national/international as sub-study Vision 2025, Panteia and Basis & Beleid, 2018

table 9 Comparison of transported tonnage (in 1,000 tonnes) by foreign and Dutch registration plates, based on top 10 cabotage operators in the Netherlands, 2018

	By foreign registration plate					By Dutch registration plate		
	Cabotage	Third-country transport		Bilateral transport		Cabotage	Bilateral transport	
	In NL	To NL	From NL	To NL	From NL	In country	To NL	From NL
Germany	1,887	2,920	3,160	13,992	9,797	7,128	24,445	26,073
Poland	1,321	8,518	9,086	3,495	4,647	16	32	56
Belgium	1,298	2,005	2,561	6,497	5,760	8,303	18,036	21,938
Romania	1,013	3,212	3,508	151	178	0	5	1
Lithuania	216	1,920	1,992	181	195	0	3	6
Hungary	202	964	920	409	485	0	35	59
Bulgaria	152	1,208	1,097	125	5	0	11	3
Luxembourg	123	774	767	260	127	8	149	321
Slovakia	108	864	811	241	231	0	3	8
Estonia	96	175	206	42	37	0	11	0

Source: Panteia and Basis & Beleid based on Statistics Netherlands (CBS)

figure 14 Development in profitability in cross-border professional goods transport by road



Source: Panteia and Basis & Beleid

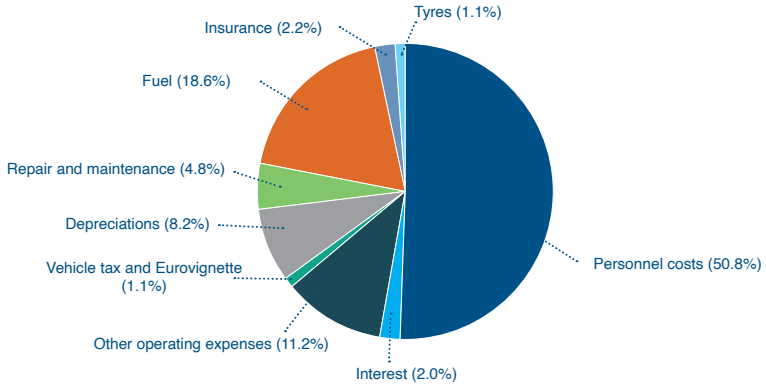
The net surplus is the standard used by Panteia for the profitability of the sector. The net surplus can deviate from the profit figure shown by companies in their annual accounts:

- Because the many small businesses have owners who work in the business and grant themselves different compensation, the owner's wage costs are first eliminated from the result and then increased with a market-based valued owner's salary (depending on the size of the business);
- Actual interest (which is paid only on the interest-bearing loan capital) is not taken into account, but a standardised interest rate on the invested capital, i.e. also on equity, is used.

Panteia also has a so-called 'base variant': it is calculated how high the return would be without the calculation of interest on the equity and in the event the business owner's notional salary were halved. This mainly affects the result of small businesses, but on average the net surplus in cross-border transport in 2017 is 0,3% positive in that case instead of 2,7% negative[26].

Conclusion: The result in international transport has been negative for years.

figure 15 Percentage share of cost types, with revenue share of cross-border transport of 50% and more



Source: Panteia, 2018, Short-term Development 3rd quarter 2018

26 Source: Panteia

Competitive position

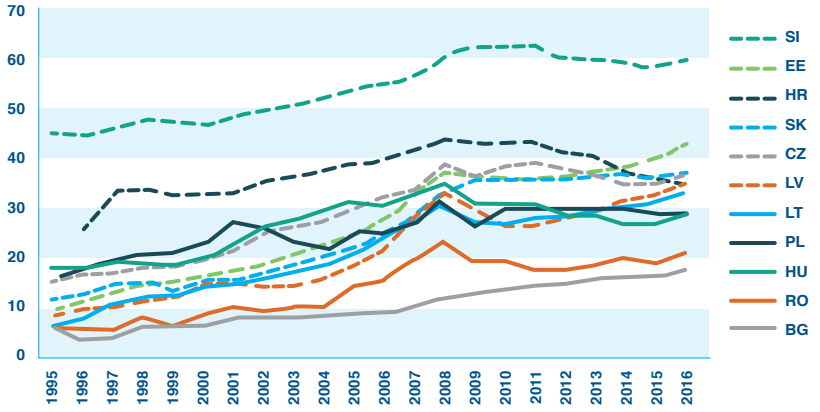
The competition in international transport is virtually unlimited. This puts a heavy burden on working conditions because the share of wage costs in the sector is high and other costs can be influenced relatively little in the short term.

Conclusion: The share of wage costs in total transport costs is over 50%.

The barriers to entry in the European transport market are low or entirely non-existent (for cargo transport with trucks with less than 3,500 kg total weight). Businesses that want to use trucks above this limit need a Euro licence (issued in the Netherlands by the NIWO). They are granted this licence if the business operator is competent, reliable and creditworthy and if the business operator has a genuine business presence in the country of application. In Europe, companies with smaller vehicles can get out of these licence requirements. In the Netherlands, a licence is required for transport using vehicles with carrying capacity of more than 500 kg.

Companies with a Euro licence also have other restrictions. A company may only carry out very limited national transport operations in another country (cabotage): a maximum of 3 journeys in a period of 7 days following a cross-border journey.

figure 16 Nominal compensation of EU11 as % of EU15 average (on EUR/ECU basis)



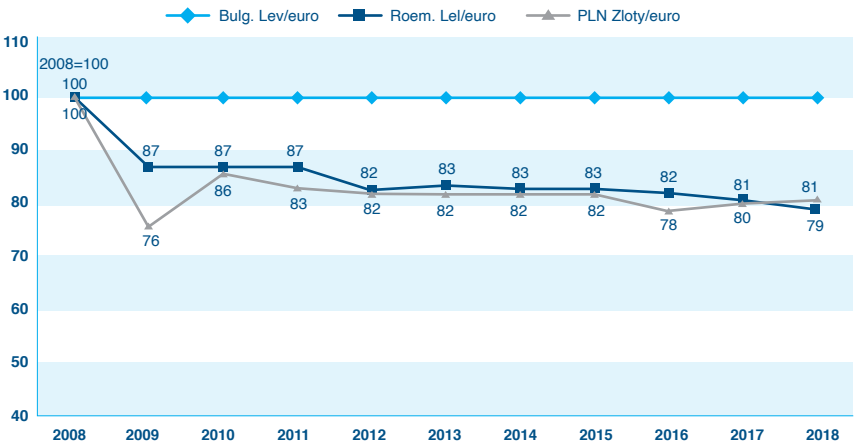
Source: AMECO

Within Europe, the differences in labour costs are enormous. In Vision 2015, published in 2009, it was reported that the costs of Polish drivers had risen from 40% to 47% of the costs of a Dutch driver in two years' time[27]. In Europe, the idea was that with the free movement of goods and persons, wage cost levels would converge. In 2017 (almost ten years later) this is still not the case.

In fact, the wage cost levels of almost all Eastern European countries as a % of the average wage cost level of the 15 EU countries that formed the EU until 2004 have decreased compared to 2008, as shown in Figure 16. The gap is not being closed. Estonia and Bulgaria are exceptions, whereby Bulgaria had the lowest wage costs in 2008.

Wage growth in the years since 2007 has been higher in Eastern European countries than in Western Europe: in the Netherlands, according to Eurostat, wage growth averaged 1.9% a year between 2007 and 2016, in Poland that was 5.1%, in Romania 9.7% and in Bulgaria as much as 10%. However, for both Poland and Romania, the value of the local currency against the euro initially fell very sharply after 2008 and gradually thereafter (see Figure 17).

figure 17 Exchange rate development Bulgarian, Romanian and Polish currencies against the euro



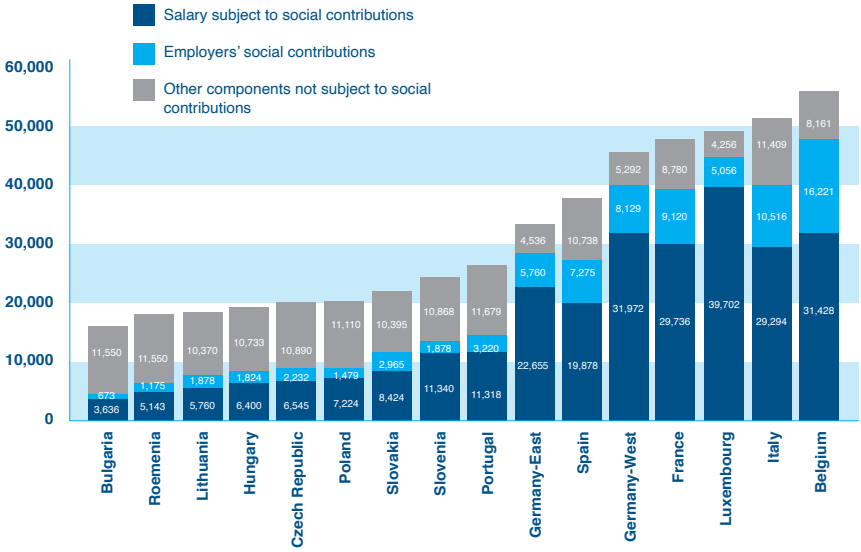
Source: Panteia and Basis & Beleid

27 Policy Research, 2009, Visie 2015 Wegvervoer en Logistiek: onderzoek naar het toekomstperspectief van de sector beroepsgoederenvervoer over de weg en logistiek (Vision 2015 Road transport and Logistics: Future perspective on professional goods transport by road and logistics)

Study by Comité National des Routiers 2016

In November 2016, the Comité National des Routiers (CNR) published a study on differences in wage costs in international road transport. They compared wage costs in France with those in 15 other countries. The Netherlands is missing from that study. The study shows that wage costs per year for a truck driver are highest in Belgium (€56,000) and lowest in Bulgaria (€16,000). Not only are there large differences in total costs, the distribution across gross wages, employers' charges and net remuneration also varies greatly. In general, net remuneration is higher in Eastern Europe than in Western Europe (see Figure 18).

figure 18 Composition of annual costs of an international driver in a transport company in 2016



Source: CNR

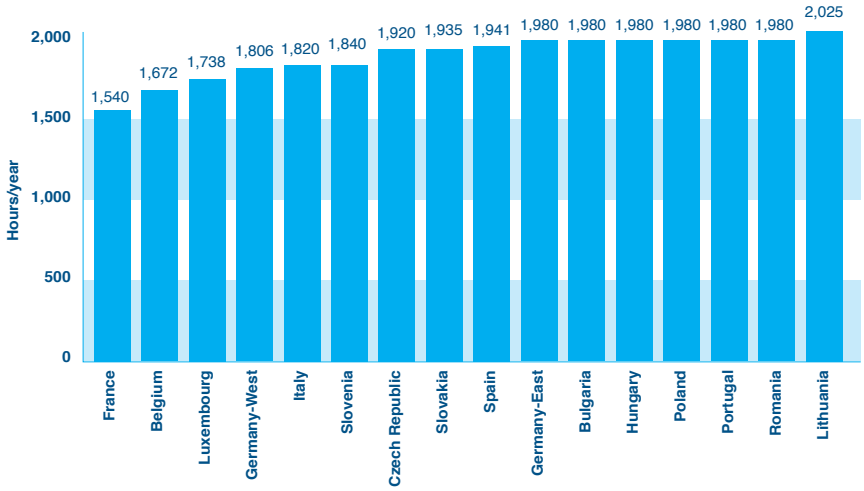
Because it is not customary in Eastern European countries for all loading and unloading hours and availability time outside driving hours to be paid in full, the difference in costs per driving hour is even greater than the difference in wage costs per year. In France, all hours worked are paid, as is the case in the Netherlands and Belgium as well (on the understanding that in Belgium, availability

28 Availability hours are hours during which the driver does not work, but is also unable to spend his time as he wishes because he must remain close to the vehicle. In Europe, definitions vary (e.g. boat or train hours), but in Belgium and France, as in the Netherlands, all availability hours are, in principle, remunerated at 100%. In Poland, for example, the remuneration for those hours is 20%.

hours are remunerated at 99% of the minimum hourly wage). In Poland, availability hours are remunerated at 20%. In other Eastern European countries, payment is based solely on the driving hours on the tachograph. These are limited to an average of 45 hours per week. There is no insight into the number of hours worked outside driving hours.

The CNR found in field research that in Eastern European countries, the maximum number of driving hours are often reached, while that number of hours is lower in Western Europe. Western European countries generally pay more types of hours (waiting hours, boat hours, train hours, etc.) than Eastern European countries. A smaller part of the working week consists of driving hours.

figure 19 Annual driving time of an international driver in hours

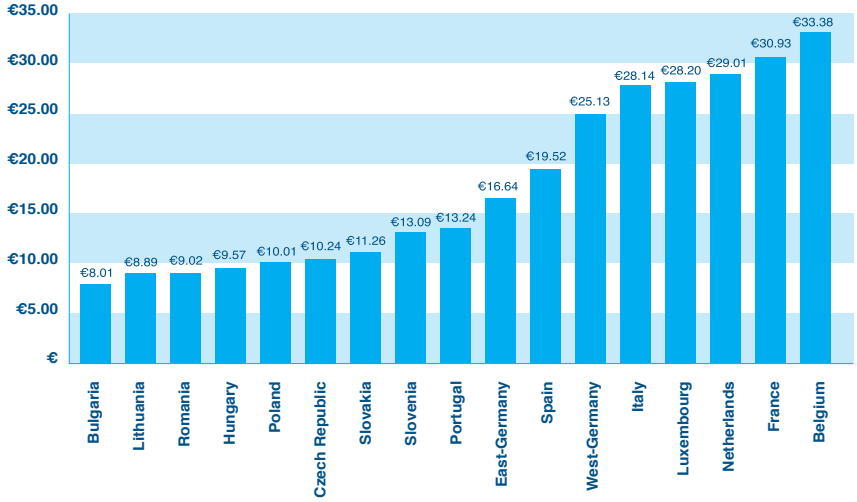


Source: CNR

The difference in wage costs per driving hour is even greater than the difference in wage costs per year, therefore. According to the CNR, a Belgian worker is more than 4 times more expensive than a Bulgarian driver per driving hour. A Polish driver costs one-third of a Belgian driver per hour[29]. The cost of the Dutch driver per driving hour is the highest after that of the Belgian and French drivers. Figure 20 reproduces the results of the CNR study, adding the wage costs for a Dutch driver.

29 CNR EUROPEAN STUDIES, Comparative study of employment and pay conditions of international truck drivers in Europe, 16 November 2016

figure 20 Total driver costs per driving hour, international driver (2016)



Source: CNR, processed by Panteia and Basis & Beleid

With such differences, the loss of Dutch flag share in international transport is not surprising. But not all loss of flag share is loss of work for Dutch companies.

A significant part of the increase **in the Eastern European flag share is attributable to Eastern European subsidiaries of Dutch and other Western European companies**. The clients did not go to a Polish competitor, therefore, but to a Polish subsidiary of the same business. Several large Dutch carriers moved their transport branch, or a large part of it, to countries such as Romania in order to carry out international transport according to the rules. The Netherlands is a major investor in transport and storage in Poland. Of the foreign investments in transport and storage (in over 1,100 businesses with a turnover of €11 billion and 92,000 employees), almost half (45%) has been invested by Dutch companies. This makes the Netherlands by far the largest (France and Luxembourg follow with 25% together).

In 2015, the total turnover of the Polish road transport sector was €25 billion and of the logistics sector in Poland €10 billion[30]. On the basis of the above estimate, more than 10% can be accounted for by companies with a Dutch interest.

30 Eurostat, and https://www.statista.com/statistics/448942/poland-turnover-volume-in-the-transport-sectorby-mode/

The share in number of subsidiaries, employment, turnover and share capital is not known exactly, but the following estimates can be made on the basis of the share in the invested capital:

- Investments in 210 businesses;
- Of which 190 subsidiaries;
- With 35,000 employees;
- €3.8 billion in turnover;
- €1.2 billion in share capital[31].

International road transport and the Posting of Workers Directive

Within the EU, the working conditions of the employee's 'usual country of employment' apply. In international road transport, it is not always easy to determine what the driver's usual country of employment is. That is why Regulation (EC) 593/2008 (Rome I) stipulates that in international road transport, the driver's usual country of employment is the country 'in or from which' the driver performs his work. In general, that is the country where the actual organisation of his work takes place and where the economic centre of gravity of his work lies. For example, an international driver employed by, for example, a Hungarian transport company is covered by the Dutch CLA if he usually works (more or less structurally) in and from the Netherlands on the instructions of a transport company established in the Netherlands.

But what if the Netherlands is not the usual country of employment but the temporary country of employment? Temporary work in another country within the EU is subject to the Posting of Workers Directive (Directive 96/71/EC (from 1996)). In principle, the Posting of Workers Directive also applies to international road transport. Within the framework of the Mobility Package, discussion has arisen within the EU on how the Posting of Workers Directive should be applied in international road transport. That discussion is still ongoing. Following proceedings by FNV against a Dutch transport company, the Supreme Court recently asked the EU Court of Justice for a preliminary ruling on questions relating to the applicability of the Posting of Workers Directive. The results are expected in the course of next year.

Consequences

For Dutch employment, it is significant not only that the flag share in international transport is declining, but also that many Eastern European workers are

31 Based on GUS, 2017, Economic activity of entities with foreign capital in 2016

employed on cross-border transport that is still carried out under the Dutch flag. The development in the flag share does not show a good picture, for several reasons: workers see that even more Dutch jobs are being squeezed out by Eastern Europeans and the influence of Dutch businesses in international transport has remained greater than the development in the flag share suggests (because part of the Eastern European flag share is 'Dutch').

The possibility of operating under different regimes means that businesses in Western Europe are unable to hold their own in international road transport. The rules for international road transport lay down requirements for the application of working conditions, but in a survey among car transporters, FNV found that a number of large carriers incorrectly apply Eastern European working conditions. In Eastern Europe, large transport companies are emerging which are disrupting the market throughout Europe with cheap drivers. This will lead to the disappearance of Dutch jobs.

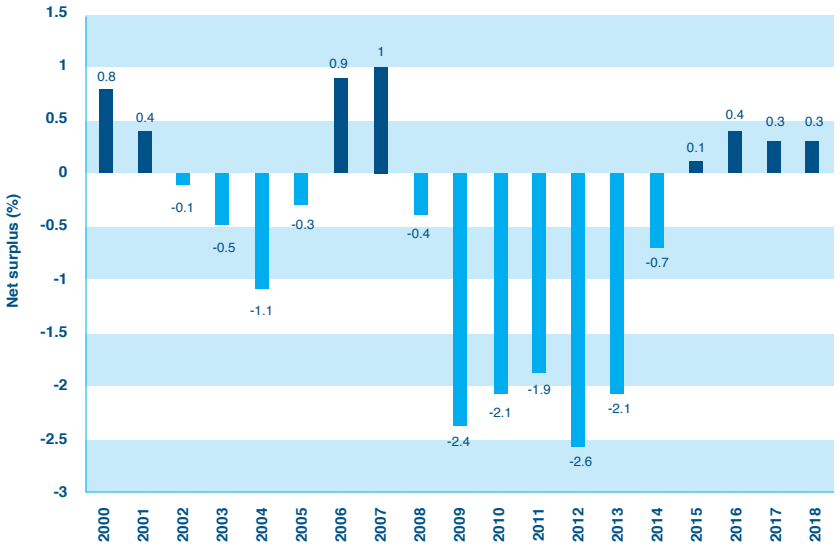
Conclusion: Dutch transport companies in international transport are still able to compete in short-distance transport (because the bilateral transport between the Netherlands and Western European countries is largely performed by Dutch registration plates), but in terms of long-distance transport, they are increasingly losing ground to foreign registration plates. Bilateral transport between the Netherlands and Eastern European countries is entirely in the hands of Eastern European registration plates. Furthermore, the declining 'flag share' in international transport is partly carried out by Eastern European drivers working for Dutch companies.

4.3 DOMESTIC TRANSPORT

Profitability and cost shares

Domestic transport decreased between 2007 and 2012, but has increased since then. After the low point in 2012, returns also improved, but this did not continue after 2016. According to the Panteia calculations, the net surplus decreased from 0.4% to 0.3% in 2017 and 2018. Here, too, the base variant (with lower remuneration for directors and no notional interest on equity) results in a higher return (4% in 2017).

figure 21 Development in profitability in domestic professional goods transport by road



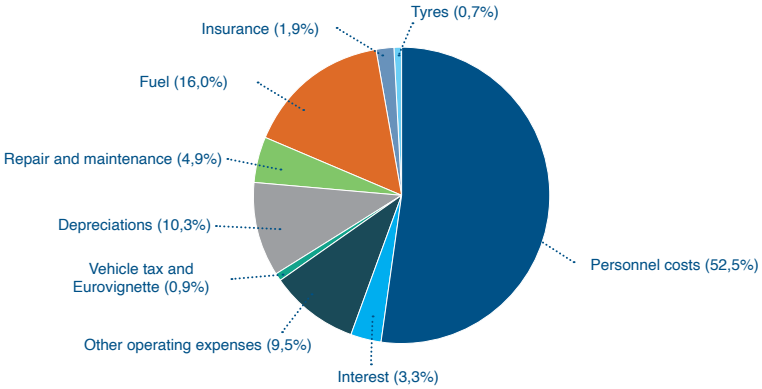
Source: Panteia and Basis & Beleid

Competition in the sector makes it difficult for companies to pass on cost increases to their clients. The result is pressure on rates and low margins.

Conclusion: Sector with low margins and strong competition for many companies. The sector is struggling to pass on cost increases to clients, which is putting pressure on rates.

Figure 22 shows the composition of cost shares in domestic transport. The share of personnel costs is more than half, at 52.5 percentage points. As such, wages are by far the most important cost item in domestic transport.

figure 22 Percentage share of cost types, with revenue share of domestic transport of 50% and more



Source: Panteia, 2018, Short-term Development 3rd quarter 2018

Size of the business

The low returns in the traditional transport sector are largely the result of fierce competition. The difference between the net surplus and the base variant shows that capacity is being maintained in the sector while this is not economically justified. Companies are showing profits on paper because business owners accept remuneration that is not in line with the market and because they are satisfied with a return on equity that is lower than the market rate. This is particularly the case for small businesses: in domestic transport, the difference between the base variant[32] and the net surplus is 3.7%, but for small businesses (2-10 tractor units) this is 5.8%. That difference is even greater in international transport. In total, the profitability in the base variant is 3% better, but for small traditional transport businesses it is 9.2%! With self-employed drivers, the difference between the base variant and the net surplus is even more than 20%.

32 In the base variant, no interest is calculated on equity and no standardised owner's salary is attributed.

table 10 Comparison of net surplus with base variant of traditional transport companies

2017		National transport		Cross-border transport	
Number of tractor units	Number of businesses	Net surplus	Base variant	Net surplus	Base variant
2-10	5,950	-2.2%	+3.6%	-8.1%	-1.1%
10-25	1,300	-0.3%	+3.6%	-5.5%	-2.4%
25-50	450	2.5%	+4.2%	-1.6%	+0.0%
>50	340	4.8%	+5.3%	3.9%	+4.7%
Average		0.3%	+4.0%	-2.7%	+0.3%

Source: Panteia, Profitability of transport and logistics companies active in professional goods transport by road 2017 and expectations for 2018 and NIWO

The differences in profitability between small and large businesses are substantial. Businesses with more than 50 tractor units have a net surplus that in 2017 is approximately 7% better than that of small businesses in domestic transport[33] and almost 11% better in cross-border transport[34]. Self-employed drivers, the freelancers (zzp) in traditional professional goods transport, score worst (net surplus in 2017: -11.5%); a slight improvement is not noticeable among self-employed drivers until 2018. In 2017, the net surplus deteriorated by a further one percentage point.

Conclusion: A large number of traditional transport companies do not make sufficient returns even in good times.

Specialisation

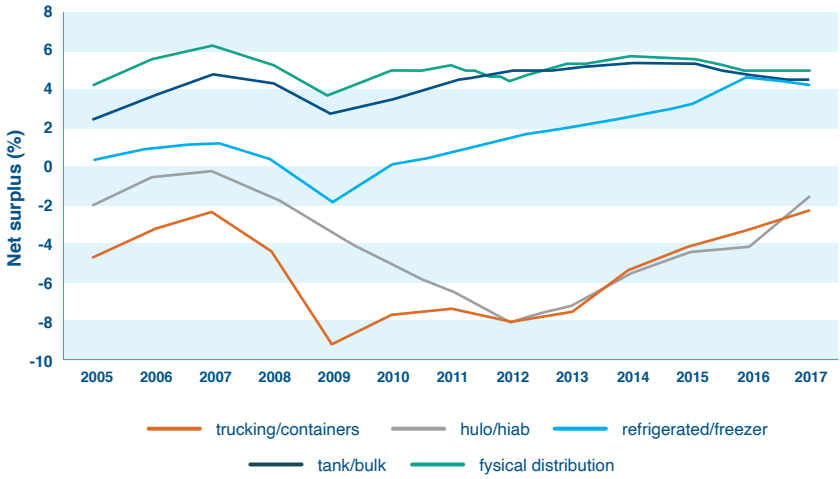
The return also varies as more requirements are placed on the transport of goods. In part, the explanation is the same: transport for which more requirements are stipulated is more often carried out by larger companies. On average, small businesses are more likely to operate in low-value transport (or as a charter for larger companies).

Figure 23 compares the average returns per subsector for the period 2005 - 2017. The following subsectors have been distinguished: containers, Hulo/Hiab (transport of building materials), tank/bulk, refrigerated/freezer and physical distribution. All segments show improvement, but the less demanding container

33 More than 50 tractor units, 4.8% net surplus, less than 10, -2.2%.
34 More than 50 tractor units, 3.9% net surplus, less than 10, -8.1%.

transport and Hulo/Hiab transport still realise a negative net surplus. It is precisely in these segments that the growth of professional goods transport has taken place in recent years. All segments are affected by the economic cycle, but this is much stronger for containers and the transport of building materials than for the other segments.

figure 23 Average return per subsector



Source: Panteia

The sector presents a diverse picture, therefore. Carriers for whom more requirements are stipulated (in terms of equipment, training or network) achieve a relatively good net surplus over all years. In segments where vehicles are 'only' driven from A to B (nationally in container/trucking, Hulo/Hiab and non-specialised international transport), a positive net surplus is not yet achieved even in the current favourable market conditions. Scarcity does result in a reduction in losses, but the carrier cannot adequately pass on the costs in its rates.

Conclusion: On average, small traditional transport companies and companies without a specialism do not achieve sufficient returns on an annual basis.

Cabotage rules: no competition from low-wage countries

The share of cabotage in national transport is low on paper (between 0.8% and 1.3%) but the ILT ascertained in 2013, in targeted checks of 163 lorries, that there

35 Brief van de minister van infrastructuur en milieu, Den Haag, 5 maart 2014.

was illegal cabotage journeys in 6.1% of cases. Because these are targeted controls, the picture may not be representative. In a letter to the House of Representatives in 2014, the Minister of Infrastructure and the Environment concluded "on the basis of the research carried out, that it is currently only possible to provide an estimate of the number of cabotage journeys", and that a more substantiated picture is needed.

Cabotage does not include domestic transport by companies from other countries using trucks with a total weight of less than 3,500 kg. In the border region, the ILT sees an increase of sometimes 3-axle delivery vans just below that limit. The current cabotage rules are therefore ineffective for the increasing use of lighter trucks. According to the statistics, Dutch carriers carry out considerably more cabotage abroad than vice versa.

Conclusion: Competition on working conditions is much less possible in national transport because of the restrictions on cabotage. These restrictions do not apply to the light-vehicle transport segment.

Illegal cabotage occurs, but setting up the business model to carry out a lot of cabotage is risky. Cabotage can still be carried out by vehicles not subject to the licence requirement. Thanks to the cabotage restriction, there is currently still reasonable protection of the domestic market against competition from low-wage countries, but here, too, improper competition takes place in domestic transport via the employment of Eastern European drivers. For example, the Council of State recently confirmed a fine of €160,000 for a domestic carrier employing 20 Romanians.

Despite the fact that the shortage of drivers has decreased because of the corona crisis, carriers expect the use of foreign drivers in domestic transport to increase in the long term if labour shortages return and persist for a long time (and as long as there is still supply). It will be necessary to attract foreign workers if transport companies want to continue to grow in the event of such a shortage on the Dutch labour market. Foreign workers employed by Dutch companies fall under the (universally binding) CLA for professional goods transport, but research by FNV and inspections by ILT and ISZW show that this obligation is not always complied with in respect of foreign drivers. Nevertheless, the cabotage restriction helps to significantly keep competition on working conditions from foreign companies out of the domestic transport market.

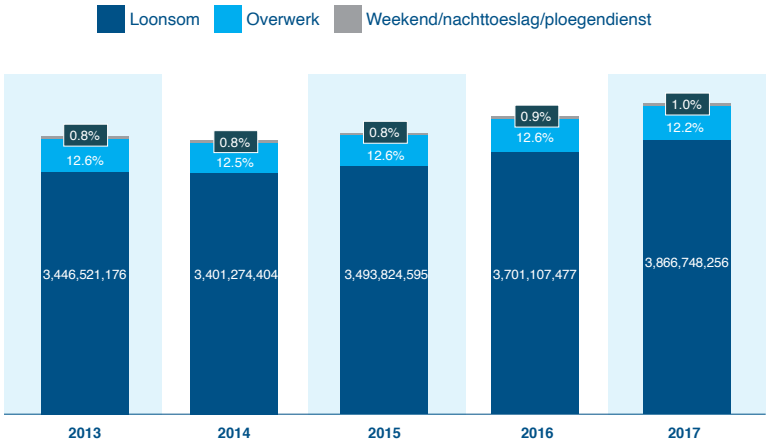
Cabotage rules create barriers to market entry for foreign carriers (including many cheaper Eastern European carriers). There are not many barriers to the entry of domestic carriers to the market. According to the Dutch Road Haulage Act, the entry barrier consists of four requirements. Those who meet the requirements are allowed to be active in the market for five years. The company is re-examined after this. The requirements are as follows:

- Genuine business presence requirement: a business must have a genuine business presence;
- Competency requirement: a business owner must have a professional qualification;
- Reliability requirement: he must be able to produce a certificate of good conduct;
- Creditworthiness requirement: he must demonstrate that his business has at its disposal at least €9,000 for the first truck and a further €5,000 for each subsequent truck.

Working Hours Act, driving and rest periods regulation, and road traffic act

Other regulations are also intended to prevent (the effects of) unfair competition in domestic transport. Companies compete on costs by increasing the productivity of drivers and cars. The limits that have been set for that are contained in

figure 24 Fixed and variable pay in the sector in 2013-2017[36]



Source: PFV (Transport Sector Pension Fund)

36 The graph shows the hours over which pension is accrued. There is a difference between the employer's statement of hours and the overtime in pension accrual because in the pension scheme of the Pension Fund for the Transport Industry, pension can be up to a maximum of 122.75% of the wage bill. In 2016 and 2017 this difference was approximately 18% of the hours in the accrual, in previous years approximately 17%.

the Driving Times and Rest Periods Act, the Working Hours Act and the Road Traffic Act. The first two set limits on the deployment of drivers and prevent unfair competition from arising. In domestic transport, the Working Hours Act is often even more restrictive than the Driving Hours Act, because domestic transport requires many non-driving working hours for loading and unloading. Both the Driving Times and Rest Periods Act and the Working Hours Act do not prevent long working weeks on average from being normal in the sector. The share of overtime in the pension fund's wage bill has remained constant over the past five years (2013-2017).

Road Traffic Act

The Road Traffic Act imposes restrictions on the loading of trucks. A truck that carries more cargo than permitted costs less per tonne of transported weight than a truck that remains within the standards. There is a fine line between maximum utilisation of cargo space and exceeding the loading standard. The onboard weigh-in-motion system (weight sensors) provides a 100% chance of being caught if the rules for overloading are violated. However, the Netherlands has not yet made a choice between weight sensors (for which current experiences do not yet give much hope for successful deployment) or the weigh-in-motion system.

Universally binding collective agreement

Because the collective agreement has been declared generally binding, companies operating in domestic and international transport are bound by the same working conditions regime.

Conclusion: The traditional transport market for domestic transport is protected by regulation against competition on working conditions. However, due to the relatively low requirements for access to the profession of transport operator and the road transport market (creditworthiness, reliability, professional competence), this does not limit capacity. This overcapacity means that even in years of growth, costs are difficult to pass on, or cannot be passed on enough, to the customer.

4.4 DELIVERY SERVICES

On the domestic market, the transport of small consignments using light vehicles is growing faster than traditional transport. For decades, the freight truck driver was the face of the sector, but more and more new positions are coming into the picture: the delivery van driver, the electric cargo bike driver, the bicycle courier and - following the deregulation of the postal market and the legal obligation to

ensure most post is delivered by salaried workers - the letterbox parcel and post deliverer.

A distinction is made between the following categories of delivery services: deliverers of letters, parcels and, as of recently, bicycle couriers (especially meals). Insofar as delivery services (must) work with a WWG licence, the same rules apply as for professional goods transport by road. A licence is required if vehicles with carrying capacity of more than 500 kg are used for transport. Light vehicles such as cargo bikes and bicycles do not fall under this category, therefore. According to the NIWO, many businesses ignored the licence requirement because the chances of being caught for not having a licence were low. This also emerged from checks carried out by the ILT at the beginning of 2018[37]. Since then, the parcels market has received more attention at NIWO, ILT and ISZW. Driving without a licence has decreased, because clients more often require a NIWO licence and because from the beginning of 2019, a link was established with the vehicle registration system (VRS) so that the NIWO can see whether the number of licence certificates corresponds to the number of vehicles. The number of parcel carriers with a licence has increased considerably following an agreement between PostNL and FNV in 2015, which obliged the self-employed to drive under a NIWO licence. However, due to developments in delivery services, work below the current licence limit is increasing.

Post

A specific segment in the sector is that of letterbox mail (up to 50 grams). This takes place within the frameworks of the Postal Act and the Postal Decree[38]. The Postal Act obliges the provider of the Universal Postal Service to collect and deliver letters (at single piece rate) anywhere in the Netherlands five days a week (mourning cards six days a week). The network that needs to be maintained for this purpose is being used less and less as a result of the decline in physical mail. The network is being thinned out (such as fewer deliverers and mailboxes) but the decrease in costs cannot keep up with the decrease in volume. The number of FTEs has been falling for years and every year there is discussion about the necessary price increase. PostNL is the operator of the Universal Postal Service. For single piece letter mail, the rates can only be increased with the approval of the Netherlands Authority for Consumers & Markets (ACM). In addition, there is the collection, sorting and delivery of bulk mail and letterbox parcels.

37 ILT, 01/02/2018, Ruim een derde gecontroleerde koeriers in de fout (Over a third of audited couriers in the wrong)

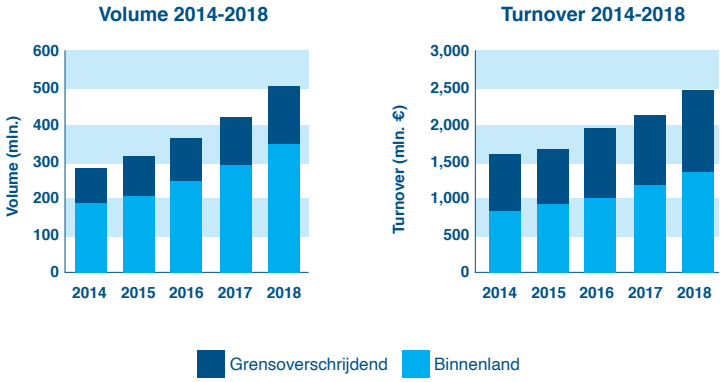
38 De Rechtspraak, 2015, Arbeidscontract pakketbezorgers PostNL (Employment contract PostNL parcel deliverers)

Parcels

The market for parcel delivery services varies by segment: international, business (B2B) and private (B2C). Three companies (UPS, Fedex/TNT and DHL) play a leading role in the market for international couriers. The share of labour costs is low; the cost of a network (including own aircraft) is high. Competition is limited. These companies are also dominant in the national B2B transport of parcels, but a large number of smaller companies also play a role in providing last-minute deliveries of B2B transport (the courier and express companies (VKE) sub-market has around 300 members with some 5,000 licences).

The delivery of parcels to the consumer (B2C) is relatively expensive and, according to research, accounts for 60% of the total logistics costs[39]. Compared to the on average low value of the contents of a parcel, delivery costs are high. Large online stores attract customers with 'free' delivery (sometimes for orders above a certain amount) but the carrier cannot provide its services for free. Online stores put a great deal of pressure on rates. However, although volume is growing faster than turnover in the sector (see figure 25), the market leader achieved an operational return of 7.5% in 2018. Other parties do not publish separate results for the Dutch parcels division.

figure 25 Volume (in millions of tonnes) and turnover (in millions of €) parcel carriers



Source: Autoriteit Consument en Markt, 2019, Post- en Pakkettenmonitor 2018 (Netherlands Authority for Consumers & Markets, 2019, Postal and Parcel Monitor 2018)

39 Roland Berger, 2017, The Last Mile: Wat gaat er veranderen in het logistieke landschap? (What is going to change in the logistics landscape?)

B2C parcel delivery is for the most part in the service of e-commerce. This segment of retail has been showing enormous growth figures for years, and has received an extra boost since March 2020 due to the corona crisis and the lockdown this brought. Most physical shops initially had to close their doors and could only reopen later under strict measures. As a result, online stores have seen their volume rise sharply, both among existing customers and among new customers. These are people who still went to the shops before the corona crisis, but were forced by corona to shop online. This applies to both consumer goods and foodstuffs. Online sales peaked in May 2020, but in June e-commerce still grew by 31% compared to the previous year. In Germany, total e-commerce sales grew by 16.5% year-on-year to more than €20 billion. During the lockdown, demand for everyday consumer goods grew by 51.2% and online shopping grew by more than 90%.

Although it is still difficult to predict at this point, the corona crisis seems to have a lasting impact on consumers. It is forecast that 25% of consumers who first ordered online because of the lockdown will continue to do so. For example, market researcher Nielsen conducted a survey among consumers in 30 European countries. 26% of Dutch respondents indicated that they expected to shop online more often. The market researcher asserts that in 2020, e-commerce supermarkets will for the first time hold more than 5% of the food market.

The impact of the corona crisis on consumers will accelerate the trend already under way: a shift from physical retail to e-commerce. This also has repercussions for transport: volumes and turnover in the delivery sector are growing significantly faster than those in truck transport. For example, some large companies recorded a serious increase in operating profit in the second quarter of 2020 compared to the second quarter of 2019.

In the parcels market, the subsidiaries of national postal operators play a particularly important role. PostNL, DHL (of DP) and to a lesser extent GLS (Royal Mail) and DPD (La Poste) have built up a nationwide delivery network.

While in transport using trucks of more than 3,500 kg, most of the work is carried out by people in permanent employment or ‘genuinely self-employed’, there is a high proportion of flexible arrangements in transport with lighter vehicles. In the parcel delivery sector, use is largely made of flexible work in sorting centres and outsourcing of physical delivery.

Delivery is largely outsourced to (small) businesses and the self-employed. Self-employed workers can be significantly cheaper than employees because they are only paid when there is work, often do not insure themselves against incapacity for work, do not accrue pension and can take advantage of tax incentives, including the self-employed deduction[40]. Employed workers face unequal competition from the self-employed, but this problem is much broader than the parcels sector. Not only do the usual arrangements that apply to employees not apply to the self-employed (working hours, insurance against sickness, pension accrual), the unequal competition also undermines support for social and sectoral provisions.

Despite the price difference, the number of self-employed people at PostNL is decreasing. Following agreements between FNV and PostNL, the self-employed in parcel delivery were given the option of becoming employed at the end of 2015. Although only a small percentage (10-15%) took up this offer, the share is decreasing, because growth is preferably filled in with people in employment. It is estimated that around 60% of deliveries are still made by small businesses (a small minority of whom are self-employed and have since been required to submit a NIWO licence).

Most outsourcing now takes place to self-employed workers with staff, who must comply with the CLA for the staff. Business owners with staff are required to have a PayChecked quality mark or an accountant's certificate with which they can demonstrate that they pay their staff in accordance with the CLA for the professional goods transport sector.

Other parcel delivery companies also make frequent use of outsourcing to the self-employed or small businesses in their business operations. Until the new CLA, which took effect on 1 January 2018, DHL still worked with many of its own employees who worked on a piecework basis. Following the conversion of the piecework collective labour agreement into an hourly wage agreement, DHL also opted for more outsourcing.

The CLA for the professional goods transport by road sector is rarely applied in parcel delivery, therefore. The large delivery services work with their own CLA,

40 In 2016, 40% of the self-employed in the Netherlands paid no income tax. (FD 31 January 2019) Between 2014 and 2016, the number of self-employed workers increased by 5% and the number of self-employed workers who did not pay tax increased by 12%. Employees will pay tax (and contribute to provisions such as AOW, ANW and WLZ) if earning as little as €6,000 a year.

for which a dispensation has been granted, and the subcontractors are either self-employed, or self-employed who in turn outsource to other self-employed workers, or small businesses (often a self-employed person with a partner working in the business and a few salaried employees ('self-employed person with staff'). Not only does this mean that the usual schemes that apply for employees are lacking for self-employed workers (working hours, insurance against sickness, pension accrual), support for social and sectoral provisions is also undermined.

According to FNV, subcontractors who do work with employees (including the 'self-employed with staff') often do not comply with the CLA for their employees[41]. Or use is made of temporary contracts (with minus steps) to prevent workers from becoming more expensive as they advance in their pay scale. 105 companies audited were found to be non-compliant with CLAs in all cases. At 61 companies, some €0.73 million has now been back paid, while the compliance procedure is still ongoing at 44 companies.

The delivery of parcels now takes place almost exclusively via professional goods transport. In cargo transport, the percentage of privately-owned vehicles continues to decrease with respect to professional goods transport, but privately-owned vehicles seem to be gaining ground in terms of parcel delivery:

- Coolblue opted for own transport and grew from 87 to 150 delivery trucks in 2017;
- Amazon started delivering itself in Germany and bought 20,000 delivery vans in the US which are leased to freelance drivers;
- Picnic delivers supermarket items to your home. Private transport is used in this respect, but when Picnic takes returns back for online stores (together with Sandd), Picnic also becomes a professional goods carrier. As long as this activity does not earn more than 20% of the turnover, Picnic's main activity remains outside the field of professional goods transport. It is expected that many online stores will follow Picnic's example, thus creating a hybrid form of private transport and professional goods transport.

Bicycle couriers

In addition to the activities of parcel delivery services, specialised home delivery services are also emerging: e.g. meal couriers. In the Netherlands, Takeaway (Fietskoeriers.nl) was the first to offer the possibility of home delivery, initially car-

41 NOS, 11/07/2017, Parcel deliverers still entitled to hundreds of thousands of euros, says FNV

ried out by bicycle couriers employed by the restaurants that prepared the meal ('private transport'). Later on, the company started delivering with bicycle couriers in their own employ and competitors emerged (Foodora, Deliveroo, UberEats), who worked with their own bicycle couriers. They are often not employees.

Within B2C delivery, the employment relationship is often not an employment contract, but regular use is made of self-employed people. For example, a large meal delivery company decided at the end of 2017 to terminate all employment contracts and only work with self-employed couriers who are paid per delivery. The self-employed person earns less than the minimum wage when delivering the usual number of meals. Thanks to the tax incentives, the courier is still left with more net income than an employee, due to opting out of pension accrual and disability insurance, for instance. The question of whether these kinds of low-paid jobs in parcel and meal delivery can still be considered self employment is addressed in chapter 5.

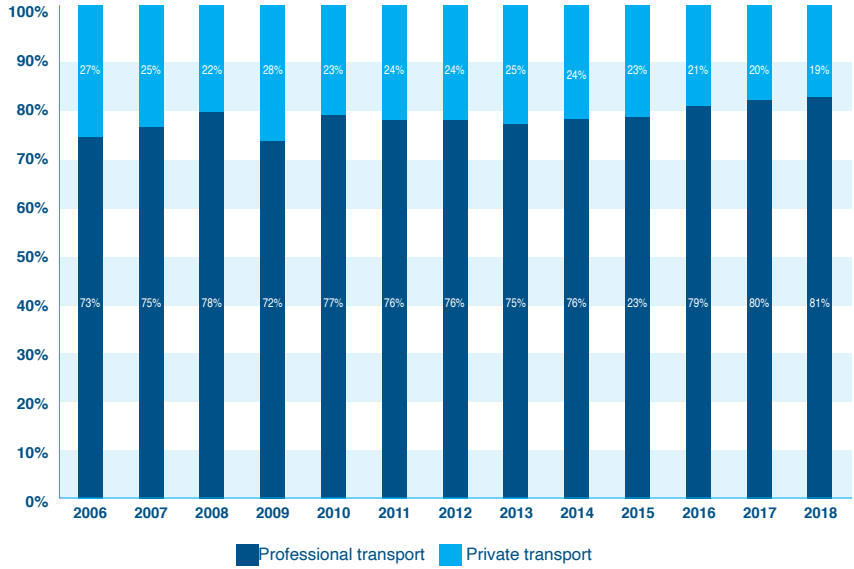
Conclusion: There is an uneven playing field in delivery services due to the use of self-employed individuals and non-compliance with the CLA. The growth in employment is mainly among the self-employed. It is only where politics sets limits that jobs are still being created for people in employment (Sandd).

4.5 THE ROLE OF CLIENTS

Forwarders

Larger companies receive their transport orders from the shipping industry. Evofenedex represents the interests of 30,000 companies in all sectors that transport goods. They provide the transport with their own vehicles or outsource it to transport companies. The proportion of private transport has continued to fall since 2006. In 2018, only 19% of the total tonnage transported was transported by private transport. The Evofenedex members, who employ 1.3 million people, together generate 70% of all cargo from, to and within the Netherlands[42].

figure 26 Development in the share of professional and private transport by Dutch road carriers.



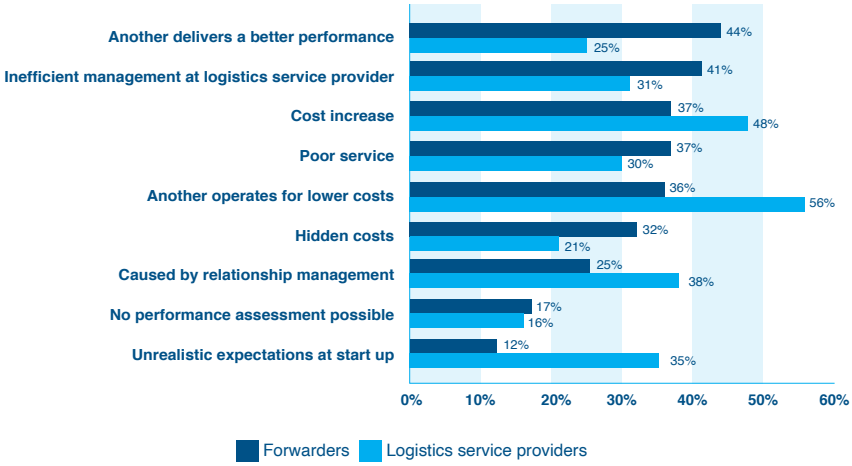
Source: Statistics Netherlands (CBS)

In the relationship between forwarders and carriers, carriers are the dependent party. Forwarders compete with each other for customer preference by responding to customer demands maximally: supplying custom products at competitive prices with short delivery times and delivery at the customer's convenience (asap or just-in-time). The more the forwarder needs to meet customer requirements, the tighter the supply chain frameworks become in terms of both service and cost.

42 Evofenedex, Partnership 'een inspirerende samenwerking met u en uw organisatie'.

Large forwarders are increasingly having logistics service providers tender for contracts. Logistics service providers receive their orders directly in 30% of cases, but in more than half of the cases in competition with others. The remainder comes from platforms or through the actively approach of clients. In a survey[43], the vast majority of carriers (74%) expressed the expectation that contracts would increasingly be awarded through tenders. Both carriers (60%) and forwarders (74%) see at the same time that the existing relationship is being continued. Price plays a dominant role in the award of the contract. Forwarders take a different view to logistics service providers as to why a contract goes to a different logistics service provider.

figure 27 Reasons why forwarders decide against renewing a contract



Source: Eye for Transport

Forwarders say that, above all, non-competitive performance, dissatisfaction with the management of the service provider and only after that costs and service, are reasons to switch. But logistics service providers think that this is mainly because someone else is cheaper.

Large forwarders put together their own transport planning. Transport is outsourced to capacity providers. The large forwarders work with multiple carriers. It enables them to monitor performance. They regularly work with an

43 Panteia, 2013, Logistieke waarde creëer je samen (Logistics value is something you create together).

open cost price calculation based on performance from the benchmark with a low mark-up for overhead. These companies run less of a risk, but respond to cost-increasing events at a delay. The price of diesel sometimes goes up (temporary disadvantage) but also down (temporary advantage) but wage costs only go up (temporary disadvantage).

Conclusion: Forwarders are dominant in their relationship with logistics service providers and seek carriers that can meet the forwarder's demand at the lowest price. In this process, the forwarder attaches greater importance to the logistics service provider's performance than the latter estimates.

Challenges in procurement

There are examples of forwarders seeking and exceeding the limits of what is possible to get the logistics service provider to bid at impossibly low prices. For example, if a company includes in the tender a requirement to tender for the transport of 50 tonnes per truck with a 5% margin, i.e. a maximum of 52.5 tonnes, where 50 tonnes is permitted by law. The CSR standard (Corporate Social Responsibility[44]) was set up to combat this type of problem. Even with carriers who have indicated that they attach great importance to CSR, fair competition is not always guaranteed. The problem starts with pressure on rates and is exacerbated by the fact that so many parties are now involved in supply chains. As a result, there is a possibility that orders will always go to the next party, because of the passing on of the entrepreneurial risk. As a result, transparency is lost and this is also at the expense of companies that do follow the rules.

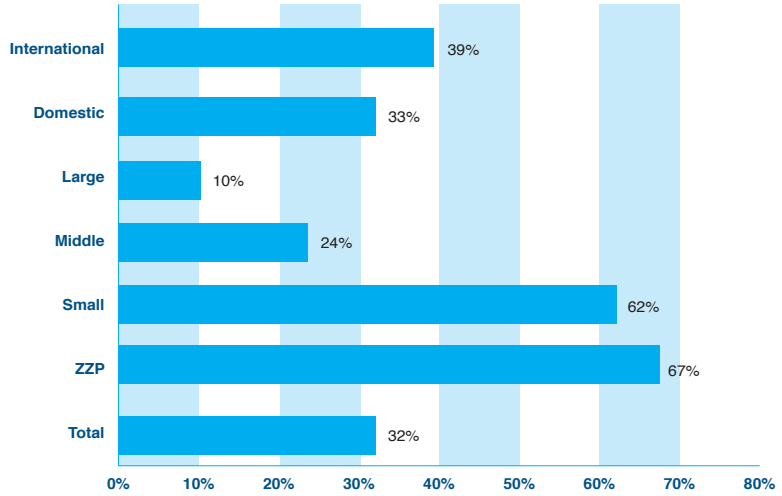
Conclusion: Forwarders regularly take insufficient social responsibility for performance of the transport of their products.

Logistics service providers

The sector distinguishes between carriers that contract directly with forwarders and carriers who operate as subcontractors to other carriers or logistics service providers. Most of the companies in the sector are small businesses. Their average return is low. They often receive their transport orders from logistics service providers rather than directly from forwarders. Figure 28 shows the share of turnover from subcontracting by business size in 2014.

44 In 2010, the International Organization for Standardization (ISO) published a set of voluntary standards to help companies take social responsibility. ISO 26000 provides guidelines, not requirements, because the nature of CSR is more qualitative than quantitative. There is no certification.

figure 28 Share of subcontracting turnover in total turnover by category of companies in professional goods transport by road



Source: TLN

Due to their size, small businesses are often unable to offer more than driving from A to B. For such companies, the strategy of 'moving up the chain' is not an option. They can only compete on price. The development in the net surplus shows that small businesses continue to drive at low rates, even if this means that they no longer receive a normal owner's salary. A shake-out of the sector hardly ever takes place because of the 'stretch' in owner's salary.

Low barriers to entry create a large supply of (small) carriers. Entry only requires that the business operator meet the professional competence and reliability requirements. In addition, a minimum amount of capital is required. For international transport, the supply is virtually unlimited and there is permanent overcapacity (as long as there are enough drivers, but they can also be recruited from outside the European Union). In domestic transport, there are more limitations on expanding capacity: there are cabotage restrictions (which limit the scope for foreign businesses to operate in addition to international transport). Language proficiency is also a requirement for a lot of transport (so foreign drivers cannot always be used). The availability of personnel is sooner a bottleneck in domestic transport than in international transport, therefore.

However, even in domestic transport, small businesses are not succeeding sufficiently in passing on cost increases in rates. These cost increases can hardly be influenced in domestic transport: the price of a truck or of the diesel is more or less a given. For small businesses, the cost of equipment and fuel accounts for about 44% of the company's costs. For large companies this is much less, partly due to the outsourcing of (part of) the transport (for companies with more than 50 trucks, the share of equipment and fuel is 34%). Most of the costs of businesses are labour costs. Because the collective labour agreement was declared generally binding, the cost of labour is also largely fixed, as long as the CLA is complied with. However, if rates cannot keep up with cost increases even in a favourable economic climate, the working conditions and/or the owner's salary is under pressure. In the case of subcontracting, these rates charged by small companies are negotiated with large carriers or logistics service providers. The Wages and Salaries Tax and National Insurance Contributions (Liability of Subcontractors) Act (Wet Ketenaansprakelijkheid) makes forwarders co-responsible for non-compliance with the CLA and has proven to have a preventive effect in other sectors. Not enough experience has been gained in road transport with how chain liability is worked out. That is why TLN and Evofenedex developed the PayChecked quality mark. If a forwarder or carrier outsources to subcontractors, the payroll administration is checked once every two years by an inspection agency.

Conclusion: The challenge of insufficient return is greatest for traditional transport companies that usually drive on the commission of fellow carriers.

Scaling up and internationalisation

In logistics services, cooperation with clients (vertical integration in the chain, upstream and downstream) is sought in order to reduce dependence on the forwarder and create a win-win situation by optimising the logistics chain. The logistics service provider takes on more coordination of the logistics, in this case. It is not only responsible for the logistics (storage and transport), but also determines the logistics concept.

Top 10 logistics service providers active in the Netherlands in 2005 and 2020 (based on number of employees)

No.	Top 10 of 2005	Rating in 2020	NR	Top 10 of 2020	Rating in 2005
1	Exel	1	1	DHL	Exel (1), DHL Solutions (5)
2	Vos Logistics	7	2	Kuehne + Nagel	Kuehne + Nagel (10)
3	Frans Maas Groep	5	3	XPO Logistics	TDG (16), Christ.S. (25), ND Log. (35)
4	TNT Logistics	4	4	Ceva Logistics	TNT Logistics (4)
5	DHL Solutions	1	5	DSV	Frans Maas Groep (3), ABX Logistics (45)
6	TMI Logistics	6	6	Rhenus Logistics	TMI Logistics (6)
7	UPS SCS		7	Vos Logistics	Vos Logistics (2)
8	Wim Bosman Groep	8	8	Mainfreight	Wim Bosman Groep (8)
9	Geodis Vitesse	67	9	Schenker Logis-tics	Schenker (13), Bax Glo-bal Networks (40)
10	Kuehne + Nagel	3	10	Bleckmann	TNT Fashion Group

Source: Panteia, 2015, Logistics service providers; the sustainability of the business model, update 2020

The upscaling and internationalisation of the business sector also calls for upscaling and internationalisation of logistics services. In recent years, many Dutch logistics service providers have become part of international companies. If you compare a top 10 from 2019 to that of 2005, you will see that there are hardly any independent Dutch logistics service providers left. These companies earn revenue from organising logistics solutions and not from carrying out transport. Often the CLA for the professional goods transport sector does not apply to employees.

In contrast to logistics service providers, international interest in Dutch transport companies is low. In domestic transport, Dutch companies still call the shots. It is still unusual for foreign groups to control Dutch transport companies. This only occurs in the case of specialist transport. Large Dutch transport companies in turn do invest abroad. They invest in Eastern Europe, sometimes in the wake of clients who relocate production activities to Eastern Europe. As a result of this relocation, the markets in Eastern Europe are also growing and the economic centre of gravity is shifting. Poland's growth as a transport country is also related to this. For example, Dutch companies are the largest investor in Poland, with €9 billion (22% of total capital invested), followed by Germany and France. This

is followed by countries such as Cyprus and Luxembourg, with the possibility that the stake of Dutch companies may be even higher (indirectly, via Cyprus and Luxembourg). Dutch business has an interest in almost 2,300 companies. Approximately 500 companies are direct subsidiaries. They have a turnover of €19 billion and employ 125,000 people.

However, international groups have traditionally been active in international courier services and as a spin-off of those activities in B2C domestic parcel shipping (e-commerce): DHL, Fedex/TNT and UPS. The platforms involved in home delivery are also strongly internationally oriented. The postal market, on the other hand, has remained a 'national market' in almost all countries as a result of the regulation of the postal markets.

Conclusion: The management of chains is increasingly in the hands of international companies. Domestic transport, on the other hand, remains predominantly a 'national market'. In the market for delivery services, international companies compete alongside national parties.

5. Regulations and enforcement

With regard to the challenges in the sector, we can distinguish three areas of special focus:

- Access to the profession: restrictions on becoming a road transport operator. The relevant legislation is: Regulation (EC) 1071/2009, the Dutch Road Haulage Act (Wet Wegvervoer Goederen; WWG), Dutch Public Administration (Probity Screening) Act (Bevordering Integriteit Besluitvorming Openbaar Bestuur; Bibob Act);
- Access to the market: restrictions to the free market to prevent social dumping. The relevant regulation is Regulation (EC) 1072/2009;
- Fair competition:
- Compliance with CLA;
- Compliance with driving times and rest periods;
- Compliance with transport legislation: load factor, transport of hazardous substances;
- Compliance with social legislation: The Dutch Work and Security Act (Wet Werk en Zekerheid), Sham Employment Arrangements Act (Wet Aanpak Schijnconstructies; WAS), Assessment of Employment Relationships (Deregulation) Act (Wet deregulering beoordeling arbeidsrelaties; DBA)

Regulations are only effective if infringements are adequately sanctioned and if the imposed regulations are clear and effective for the purpose for which they are intended. It is therefore important to investigate the causes of frequent infringements and to identify what is needed to improve compliance. An adequate sanctions policy, whereby the nature and level of sanctions are in proportion to the gravity of the infringement and notorious offenders who are unwilling to make changes are dealt with forcefully, is essential in this respect. There are a number of parties involved in monitoring compliance, who individually or collectively need to make sure that the objectives of the regulations are achieved. In terms of the aforementioned regulations, these are:

- Licences: NIWO, ILT;
- Transport legislation and driving times and rest periods: ILT (cabotage), trade unions;
- Social legislation: ISZW;
- Fair competition/bogus self-employment arrangements as a specific theme within the road transport sector: ILT, ISZW, police & judicial authorities and the Netherlands Public Prosecution Service;
- Compliance with CLA: Collective bargaining parties and ISZW/ILT.

5.1 ACCESS TO THE PROFESSION

The NIWO plays an important role in access to the profession. A Euro licence is the operator licence that is required for professional goods transport by road by vehicles with a load capacity of more than 500 kg. It is the NIWO that checks whether the requirements for obtaining this licence are met. A Euro licence is valid for five years. Every five years, the NIWO checks whether operators still comply with the requirements.

These requirements are:

- Operators must have a genuine business presence: an operator must be established at the business address from which transport activities are managed;
- The operator must have professional competence: the person in charge of managing the transport activities must have the required certificates of professional competence;
- The operator must be creditworthy: the operator must have business capital of at least €9,000 for the first vehicle, plus €5,000 for any additional vehicle that is used;
- The operator must be reliable: the operator must be able to produce a certificate of good conduct. A licence may also be refused if the applicant is not eligible under the BiBob Act as a result of having dubious/criminal contacts.

Euro licences in 2018 and 2019

NIWO's annual report shows that the vast majority of licence applications are granted. In 2019, the NIWO received 1,860 new applications for a Euro licence and 1,332 applications for renewal of the Euro licence. In that year, 968 licence holders were deleted and 512 new licence holders were added[45]. Situations in which the NIWO refused a licence were the exception (7 in 2019): in most cases, licences were withdrawn at the request of the operators themselves (>50%) or because a licence was converted into a new licence. In 2019, 10% of cases involved a licence being withdrawn due to bankruptcy of the operator. In 12% of the withdrawals, licence were withdrawn because the requirements were not met: lack of business capital is a reason for the NIWO to withdraw a licence (this happened twice in 2019), but this decision is not taken lightly. Operators that do not meet the capital requirement are seen as high-risk. Of the more than 1,400 high-risk operators, in 2019 only 47 were notified of the intention to withdraw a licence. In the end, 45 licences were actually withdrawn.

45 NIWO, 2018, Annual report 2017

Since 2015, the NIWO also has a system for reporting misdemeanours in the transport sector. When an operator is reported, this can lead to the ILT being called in, an on-the-spot investigation and the withdrawal of the Euro licence if the requirements are not met. In 2019, there were 177 reports of a misdemeanour. As far as is known, none of these reports have resulted in the withdrawal of a licence. In 2019, there were still 11 outstanding cases where advice was being requested from the national Bibob agency. "The NIWO found that the number of tips received nevertheless lags behind the number that could be expected on the basis of press publications on, for example, undercutting, manure fraud and drug transports." [46]

Analysis

We can conclude that under the licensing requirements, the thresholds are low and barely restrict access to the market. Despite this, the NIWO has noticed that especially in the B2C (e-commerce) growth segment, operators are 're-certifying' their vehicles to a load capacity of less than 500 kg in order to avoid the licensing requirements and costs. A licence is required if goods are transported using a vehicle with a load capacity of more than 500 kg. Operators who have their vehicles re-certified to a load capacity of less than 500 kg do not have to meet the requirements, although they do run a risk if they carry more than 500 kg (fine for being overloaded). The NIWO has identified that both occur: driving without a licence because the probability of being caught is low, and incorrect re-certification to avoid having to meet the requirements.

The Netherlands, with its 500 kg threshold is stricter than the EU. In most EU Member States, the threshold for licence is the same as the European threshold of 3,500 kg total weight. In May 2017, the European Commission presented the first version of the Mobility Package, which also calls for lowering the licence threshold to vehicles below 3,500 kg total weight. For transport using lighter vehicles, the requirements set by the EC relate to genuine business presence and creditworthiness. The Mobility Package was finally adopted in amended form by the European Parliament in July 2020. The licence threshold in the European Union is set at 2,500 kg total weight, but individual Member States are still allowed to set a lower threshold. In the Netherlands, the NIWO – in response to the social partners – has also called for the licence threshold to be lowered to 0 kg in order to prevent uncertainty and evasive behaviour.

46 NIWO, 2018, Annual report 2017

The genuine business presence requirement is an important part of licensing requirements, even though this does not play a major role in the Netherlands. It is crucial to know whether an operator is actually based in Eastern Europe or whether bogus-self employment arrangements are being used so that drivers from low-wage countries can be used. In view of the relatively high wage costs in the Netherlands, this is not the most obvious country for businesses with international operations to set up bogus self-employment arrangements. The NIWO considers the genuine business presence requirement to be less important at the moment. In the 1990s, certain tax advantages in the Netherlands led to a large increase in the number of British transport operators setting up letterbox businesses; however, the establishment of letterbox businesses in the Netherlands in order to obtain a Dutch transport licence, is currently less of an issue. The genuine business presence requirement is, however, of major importance for competition from Eastern European countries. This requirement has been tightened up in the Mobility Package with requirements regarding having a record-keeping system, accessibility for vehicles (some letterbox businesses are established at locations where vehicles are not permitted) and a 'proper balance' between the amount of transport activities, number of vehicles and drivers. Another important aspect is that it is now compulsory for a vehicle to return to its 'home country' once every eight weeks (the EC is still investigating whether this provision is in conflict with the Green Deal).

For a long time, Western European transport operators, including many Dutch transport operators, have used letterbox businesses in Eastern European countries. The NIWO does not know the percentage of Dutch transport operators that have East European subsidiaries (whether or not in the form of letterbox businesses). There is an insufficient exchange of information between the NIWO and similar licensing organisations in other EU countries. There is an Electronic Register of Road Transport Undertakings (ERRU), however, this only contains data on very serious infringements committed by carriers in Member States other than their own. This may alert organisations such as the NIWO and ILT, but this register is not exhaustive. In addition, the ERRU is not yet operational in a number of other Member States, which stops its large scale use. In 2016, the list of infringements that could lead to a loss of reliability was extended, but the NIWO does not expect the Regulation to be implemented until 2020. In a series of court cases, the case law on the conditions for a genuine business presence to exist, has been clarified: the new rules in the Mobility Package are in line with that case law.

The NIWO does not have all the information available from which it can gain an understanding of bogus self-employment arrangements and compliance. For example, although the NIWO has information about the number of operators and vehicles, it does not have information about the number of drivers, because it is KIWA that has responsibility for issuing driver cards. Whether the number of drivers reasonably corresponds with the number of vehicles of a Dutch operator can only be constructed by combining data from both authorities. This exchange of information is not yet taking place, but the ILT is working on this.

5.2 ACCESS TO THE MARKET AND FAIR COMPETITION

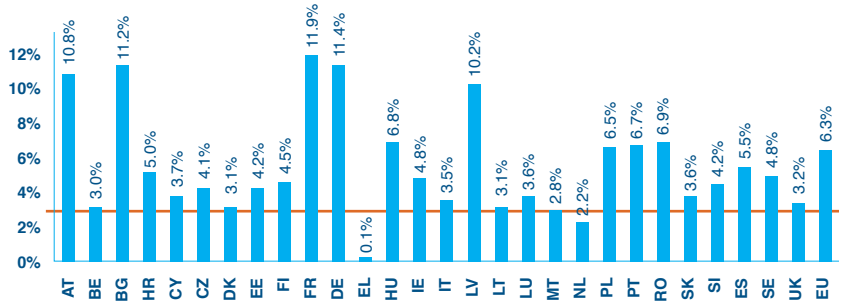
5.2.1 ILT

The regulations for transport and working in the transport sector that must be enforced by ILT (cabotage, driving times and rest periods and the registration of those driving times and rest periods) are largely embedded in European legislation. In Europe, Directive 2002/15/EC and Regulation (EC) 561/2006 apply to the enforcement and monitoring of driving times, rest periods and working hours. Driving times and rest periods are set out in the Dutch Working Hours (Transport Workers) Decree. The tachograph is subject to Regulation 165/2014/EU and the European requirements for enforcement are set out in Directive 2006/22/EC (later amended in Directive 2009/4/EC and Directive 2009/5/EC). This Directive sets the minimum requirement for monitoring that checks must cover at least 3% of the days worked by drivers. At least 30% of this must be roadside checks, and at least 50% at the premises of operators.

Physical supervision

The rules governing driving times, rest periods and tachographs are complex, which

Figure 30 Percentage of worked days checked by the enforcement authority



Source: EC, COM(2018) 698

makes compliance very difficult. Furthermore, the pressure on profit margins means that the rules on driving times and rest periods are being pushed to the limit and sometimes even exceeded. Monitoring driving times and rest periods is the responsibility of the Human Environment and Transport Inspectorate (ILT). As part of its responsibility for road safety and the road network, especially driving times and rest periods and overloading, the ILT carries out roadside checks and business inspections. By checking driving times and rest periods, the ILT also indirectly monitors compliance with the collective labour agreement. In the eyes of ILT, the probability of being caught is very small. The ILT needs to cover many areas and therefore has to make choices. These choices are made on the basis of an ILT-Wide Risk Analysis (in Dutch: IBRA). "Market balance in goods transport by road" was one of the programmes in 2019. With this programme, the ILT has prioritised tackling well-known road transport misdemeanours. One of the avenue it wants to explore is creating a system of desk enforcement. If all carriers regularly submit their driving times and rest periods for inspection, the ILT will be able to focus more of its capacity on risk-based enforcement. The Court of Auditors is positive about this approach in a letter to the Lower House of the States General[47], but also notes:

"We would like to note that risk-based monitoring does not automatically mean that less inspection capacity is required. The work will be different, but drawing up chain analyses together with other enforcement partners, accessing and analysing new data sources and deploying the most effective (behavioural) interventions on the basis of those data sources will in some cases require more, rather than less, capacity." (p. 41).

As part of this approach, six programmes have been launched, one of which is 'smart and safe goods transport by road' (launched in 2018). The need for these changes is evidenced by the results of enforcement up to 2017 (after 2017 these results have no longer been published separately for transport in the annual report). In 2017, the ambitions for road transport have not been met (see table 11).

table 11 Random checks and detected infringements

Activity	Planned	Achieved
Operation and management checks	952	549
Cooperation agreements	73	67
Object inspections	15,480	9,247

Source: ILT

47 16 May 2018: Resultaten Verantwoordingsonderzoek (Results Accountability Study) 2017 at Ministry of Infrastructure and Water Management

In 2017, there were 9,247 object inspections. The ILT also carries out unannounced and targeted inspections. The police also carry out regular checks in some parts of the country and issues fines for infringements regarding overloading and driving and rest periods.

In Europe, there are three countries that do not meet the agreed European inspection standards. Greece hardly carries out any inspections (it only achieves 5% of the inspection requirements), the Netherlands has the second worst score with 72% of the inspection requirement and Malta completes the trio with over 90%. So far, the Netherlands has not been fined for failing to meet the inspection requirements because of a system of cooperation agreements it has put in place. The rationale of the ILT was that it would be able to conclude cooperation agreements with compliant operators that have their record-keeping and systems in order. Monitoring could then be concentrated on operators without a cooperation agreement. The ILT ceased the cooperation agreement approach in 2018. Cooperation agreements have not proven to be a watertight guarantee for compliance with regulations, but that in itself has not been the reason for ILT ceasing its cooperation agreement approach. The ILT came to the conclusion that the efforts of drawing up and monitoring cooperation agreements meant that a great deal of capacity was focused on operators that were more inclined than average to comply with regulations. Too much time was spent on monitoring the systems of those operators that wanted to conclude a cooperation agreement. Instead of focusing on compliant operators, the ILT says it wants to focus on offenders. This new approach means that the Netherlands is unlikely to meet European requirements for the number of roadside checks and checks at the premises of operators, while the cooperation agreement approach no longer provides an alibi. The ILT does not have enough resources for this: it has twenty people available for roadside checks. There are 85 devices in the Netherlands for analysing tachographs, compared with, for instance, 240 in Poland, 2,321 in Germany and 3,500 in France. In 2020, the ILT will introduce a variant of the cooperation agreement approach under the name of System Supervision. In order to qualify for this new system, operators must meet seven criteria, including continuous monitoring, managing and auditing business processes to ensure compliance with legislation and regulations. If an operator meets all these criteria, they will be audited and if they pass this audit the operator will be monitored remotely only.

In general, monitoring efforts have not increased in Europe. In the Netherlands, it remained the same in the period between 2011 and 2016. In Europe, the number of investigators (trained in tachograph checking) increased in 2013-2014,

but then fell back to the 2011-2012 level. The number of devices used for these checks decreased from nearly 12,000 to more than 10,000. The decrease in the number of detected infringements may have led to not increasing the monitoring of goods transport by road[48]. The last EU reporting period (2015-2016) once again saw this number increase: roadside checks show an average of 2.17 infringements per 100 days and an average of 4.19 infringements during checks at the premises of operators. Per operator, the number of detected infringements increased from 12 to 37. In particular, the number of cases of tachograph fraud is growing rapidly. Roadside checks in the Netherlands show that almost 1 in 6 vehicles (16%) were found to have committed tachograph fraud. It is sometimes so difficult to detect the fraud, that the help of manufacturers needs to be enlisted to establish how the software or hardware has been tampered with. Not every manufacturer is equally cooperative. Tachographs sometimes give users the option to use parameters that do not comply with regulations. In a report to the government, the ILT writes: "as a result of the aforementioned practices, the ILT cannot adequately enforce driving times and rest periods"[49]. According to insiders in the Inspectorate, the Smart Tachograph, which was released in 2019, is not fraud-proof either, but does make some types of fraud more difficult. The next version is to be released in 2023.

Digital monitoring

The hope of reducing road traffic infringements by increasing the probability of being caught is now based on digital surveillance. Following the introduction of the Weigh-in-Motion system[50] (weight sensors), vehicles are already being checked at various locations in the Netherlands. The system was introduced in 2013, but was stopped in 2015 due to inaccuracies in registrations. The systems were found not to measure accurately enough and were only used as a selection tool for further inspections. It then appeared that due to technical failure, only 6 out of the 20 weight sensors were actually working. A few have since been repaired, which means that 9 sensors are now operational. Very soon, the Netherlands will have to decide on the basis of European legislation whether to continue using the weigh-in-motion system or whether to start monitoring with the use of on-board units/sensors.

Data analysis is another highly efficient way of detecting infringements. To date, however, non-public data has only been used in exceptional cases. According

48 EC, COM(2018) 698; EC COM (2014) 709; EC, COM(2017) 117.
49 Signaalrapportage ILT (Warning report ILT), December 2018
50 Monitoring overloading using weight sensors in the road surface.

to the ILT, its options would dramatically increase if non-public sources could be used more often (such as the ECT cameras). So far, the use of non-public sources has come up against a number of complications, such as privacy legislation.

Another promising development is the Smart Tachograph, which can be read remotely. Smart Tachograph remote checks may be targeted or random, but random checks of all vehicles or tachographs for infringements of driving time and rest periods are not permitted.

The intensity of monitoring in the UK (using technical capabilities such as number plate recognition) demonstrates that a greater probability of being caught does contribute to compliance with regulations and legislation. The ILT also sees many more technical possibilities for improving monitoring, such as in-vehicle systems for measuring heart rate and corneal reflection. In Germany, these measurements are also taken via external portals.

Digital monitoring is considered useful for monitoring operators who are established and registered in the Netherlands and who therefore do not work under the radar. The question is whether it will also be helpful in tracing operators who have not applied for a NIWO licence or whose work practices are not above board. Furthermore, in addition to digital monitoring, visible roadside checks remain important, particularly for checks on foreign vehicles and for the perceived probability of being caught.

International cooperation

The inspectorates in Europe communicate frequently with each other, but the sharing of data is complicated because of the diversity of systems that are used. The European Parliament has therefore proposed some improvements as part of the Mobility Package (IMI, ERRU, real time access). A number of countries manage to exchange data on notorious offenders, but the European Register (ERRU) has yet to be introduced in three countries (including the Netherlands). In addition, only irrevocable convictions are shared in this system and given the length of some proceedings, offences can only be shared a long time after they have been committed and cannot be shared by all countries yet.

Conclusion: The current form of monitoring by the ILT means that the effect on compliance is only limited. There are good opportunities to greatly improve monitoring and enforcement within both the Netherlands and Europe by making smart use of data sources and improved cooperation between different regu-

lators, both inside and outside the Netherlands. The Mobility Package offers a number of improvements for mutual coordination and cooperation between Dutch regulators and their foreign counterparts. Furthermore, the European Commission will ensure greater uniformity of data exchange and provide a fixed formula for determining the ERRU risk classification. The ILT's lack of capacity when it comes to carrying out checks on road transport remains a thorny issue. At the very least, the ILT will have to comply with the European minimum number of roadside checks to ensure that there is the same probability of being caught in the Netherlands as there is in other countries in Europe.

5.2.2 Inspectorate SZW

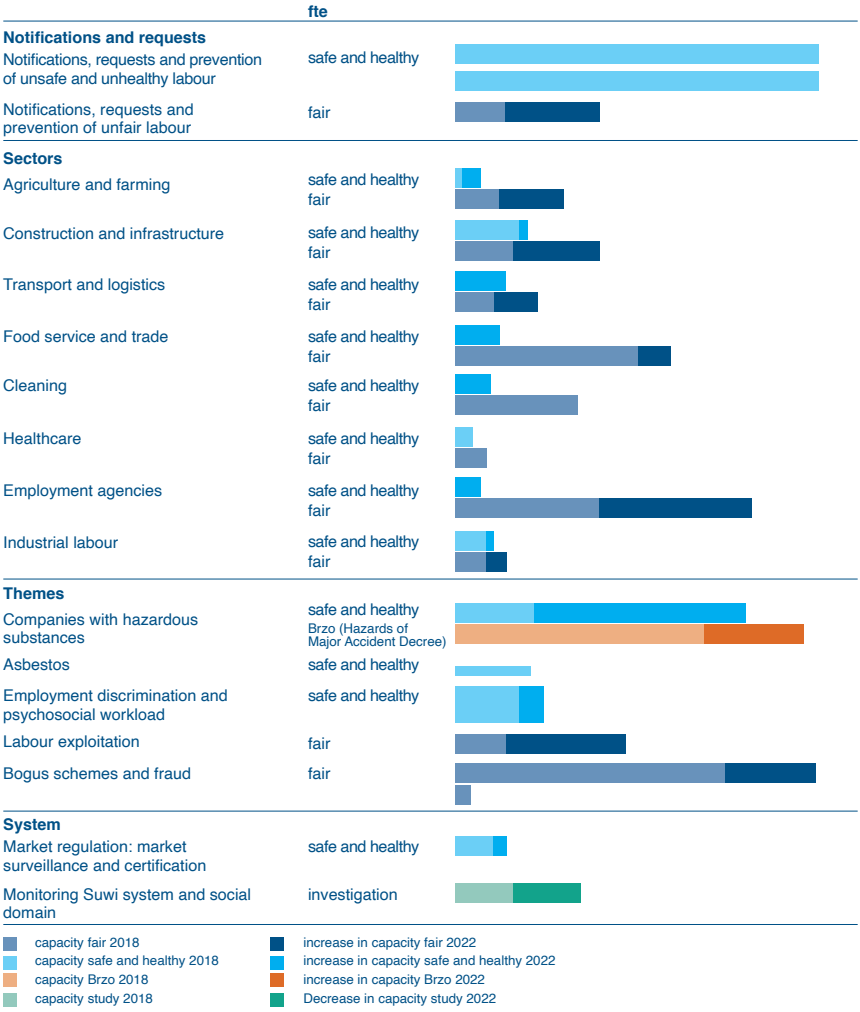
Government enforcement in road transport is not only the responsibility of the Environment and Transport Inspectorate (ILT), but also the Inspectorate of Social Affairs and Employment (ISZW). The ISZW monitors compliance with the Minimum Wage Act (Wet Minimumloon; WML), the Foreign Nationals (Employment) Act (Wet Arbeid Vreemdelingen; WAV), the Terms of Employment Posted Workers in the EU Act (Wet arbeidsvoorwaarden gedetacheerde werknemers; WagwEU), the Working Hours Act (Arbeidstijdenwet; ATW) and the Dutch Posting of Workers by Intermediaries Act (Wet Allocatie Arbeidskrachten door Intermediairs; WAADI). The ISZW started a programmatic approach in mid-2017: all its activities form part of a particular programme. Currently, the number of programmes has been cut from 25 to 17. Transport and Logistics is one of those 17. The topic of transport is also touched on in a number of other SZW programmes (such as the hazardous substances programme and the bogus self-employment programme), although the main focus of these programmes is on different sectors (construction, care).

The website of the ISZW states: "The Transport and Logistics sector is a high-risk sector. The Inspectorate SZW started a programmatic approach in 2017. The Transport and Logistics programme works towards a fair transport and logistics sector without unfair competition between employers and without displacement of workers through underpayment, illegal employment, labour exploitation and/or the use of bogus self-employment arrangements. In this programme, the Inspectorate SZW, together with other regulators (including the Human Environment and Transport Inspectorate and the Police), tackles transport operators that violate the regulations. The Inspectorate's activities include road transport, inland waterway transport and parcel and courier services"[51]. The programme is based on two pillars: 'social dumping' in international transport and in parcel and

51 Inspectorate SZW.

transport services. 2020 sees the introduction of another pillar for occupational accidents, because this sector sees a high number of accidents (physical strain and lifting, especially in logistics services). Extreme forms of labour exploitation are handled in collaboration with the Investigation Department of the Netherlands Public Prosecution Service. An international partnership (IMI) exists between labour and social inspectorates, but the number of joint projects is small.

figure 31 Personnel increase and programme size



Source: ISZW, 2018, 2019-2022 long-term plan

Recent developments

Unlike the ILT, the ISZW is gaining more ground: the number of staff will increase from approximately 1,050 to approximately 1,550 by 2022. Based on the Inspection Monitoring Framework, the ISZW was able to demonstrate the effectiveness of compliance activities and has received more money to deal with the increase in work. A large part of the expansion of the Inspectorate is allocated to the Hazardous Substances Programme, but road transport also sees a limited increase in capacity (see figure 31).

Challenges

The work of the Inspectorate will remain difficult as long as there is uncertainty about legislation:

- Bogus self-employment arrangements and the Assessment of Employment Relationships (Deregulation) Act (DBA) Since the suspension of the DBA Act, there has been no clarity as to what constitutes bogus self-employment. Before the introduction of the DBA Act (1 May 2016) self-employed workers had to be able to submit a Declaration of Employment Status (Verklaring Arbeidsrelatie; VAR), which – in theory – was only provided by the tax authorities if a number of criteria were met. One of those criteria was that someone had to work for several clients. However, the tax authorities nevertheless issued a Declaration of Employment Status to, for example, operators who were only delivering parcels for one carrier. The DBA Act – which is only enforced if there is a flagrant infringement – has done nothing to improve clarity. According to the DBA Act, self-employed workers are not regarded as employees if they work on the basis of an approved model agreement. At the start of 2020, the Borstlap committee, which was commissioned by SZW to study the labour market, called for a much more rigorous approach to the problem of bogus self-employment arrangements by aligning to the European principle: anyone working in a business or for a business must be considered an employee unless the employer can prove otherwise. The committee also called for compulsory occupational disability insurance for workers who are genuinely self-employed (as already agreed in the pension agreement), in order to reduce the gap between permanent work and flexible work.
- Bogus self-employment arrangements in international transport (Mobility Package and Posting of Workers Directive). For a long time, it has been difficult for inspectors to establish a worker's place of residence, their place of work, who their employer is and where their home country is. For example, if inspectors check a Polish driver, they need to establish where they live and whether they are working too many hours in the Netherlands in contravention of the legislation. Enforcement proceedings take a long time: at the end of 2018, a fine of

€160,000 was imposed on a domestic carrier for allowing Romanians to work without a work licence in 2013[52]. The Mobility Package, which was agreed in July 2020, provides clarification on a number of points;
- There has been a long period of confusion for the ISZW regarding the entitlements of posted workers. Checks are made to see whether the requirements of the Dutch Minimum Wage Act are met, but court rulings are based on the assumption that workers are entitled to the basic working conditions of the 'usual country of employment'[53]. The collective labour agreement for the sector sets out the basic working conditions, including remuneration. The Mobility Package also provides clarity in this area (see paragraph 5.4).

Of the ISZW's limited focus on road transport, a large part of this is taken up by bogus self-employment arrangements, both in international transport and in the growing area of courier and parcel delivery services. When inspecting these e-commerce activities, this attention is not so much focused on the large parcel delivery services and their subcontractors, but on the subcontractors of the subcontractors and on the courier operators that carry out occasional work. Inspections show that two-thirds of these operators have committed a misdemeanour. The Inspectorate SZW urges clients to take measures, "but this appears to be insufficient to limit the number of misdemeanours."[54]

One of the problems often encountered by the Inspectorate is that sub-subcontractors claim that they are working on the basis of doing a mate a favour ('standing in for a friend') and therefore do not fall under the regulations. The nature of the relationship can only be determined through long-term monitoring in cooperation with the tax authorities. It is not clear whether the main contractor and subcontractor have no knowledge or do not want to have knowledge of the infringements committed by the sub-subcontractors. Pay below the minimum wage by offering piecework pay has no longer been possible since 2018. Inspections can now establish whether employees who work 5 hours are being paid in compliance with the Minimum Wage Act (WML).

In 2019, the fight against unfair employment and labour exploitation was stepped up. Together with the tax authorities, bogus self-employment arrangements are tackled, the reporting obligation in accordance with the WagwEU Directive

52 ISZW, 08-11-2018, Limburg transport company has to pay fine of €160,000
53 "Usual country of employment" is understood to be the country in which or from which the worker habitually carries out his work (Koelzsch judgment, Rome I).
54 Annual report ISZW 2019, page 15.

– which provides insight into foreign operators and employees working in the Netherlands – has been introduced and a Monitor for Fair Employment (Monitor Eerlijk Werken) has been set up. In a pilot project involving 100 operators across all sectors, a quarter of the cases were found to be infringements "because the employer was not sufficiently familiar with the regulations"[55].

Alongside the focus of the ISZW to the transport sector within the Transport and Logistics programme, the sector also appears in thematic programmes such as the programme for bogus self-employment and temporary employment agencies (mainly distribution centres).

5.3 SCOPE AND COMPLIANCE WITH THE CLA

The social partners in the sector see it as a joint responsibility for operators to comply with the CLA with regard to any activities they carry out that fall within the scope. The generally binding declaration means that the CLA is also compulsory for non-members of the employers' association. "This obligation covers both motorised and non-motorised transport of goods. After all, the clause regarding scope is not limited to motorised transport and emphasises the transport of the goods themselves, not how they are transported," according to the court ruling in the case of FNV v. Deliveroo[56].
It is not in the interests of employees or employers to face competition on an uneven playing field. In practice, it is the trade unions that regularly start proceedings in cases where collective agreements are undermined, such as operators who use bogus self-employed workers, abuse other flex-constructions and – if employees are employed – stipulate deviating employment conditions (such as in the FNV proceedings against Sandd and Deliveroo in 2019, as well as against operators that have 'Dutch' work carried out by foreign drivers under deviating working conditions).

Compliance with the CLA is a task that the social partners each carry out in their own way. The FNV has organised information and compliance activities in the Stichting VNB; at CNV Vakmensen, compliance activities have been integrated as part of its own work organisation. TLN and VVT promote compliance by informing employers about the content and interpretation of their CLA. The Stichting VNB receives thousands of telephone calls every year about the content and interpretation of the CLA (see table 12).

55 Annual report ISZW 2019, page 15.
56 https://uitspraken.rechtspraak.nl/inziendocument?id=ECLI:NL:RBAMS:2019:6292&showbutton=true&keyword=deliveroo

Table 12 Number of telephone calls with questions about the CLA at the VNB

VNB	2015	2016	2017	2018	2019
Number of telephone calls	5,583	3,500	3,963	3,516	3,263
Number of email requests	465	510	676	685	756
Requests received via a report form	40	51	70	59	59
Questions via the Wagecheck Ap	--	135	350	219	302

Source: VNB.

After a decrease in 2016, the number of telephone calls increased again from 2017 onwards. The number of questions by email also increased from 2017 onwards. The new CLA was agreed in the middle of 2017.
Article 78 of the CLA sets out the reverse burden of proof. This put the obligation on employers, at the request of trade unions, to demonstrate that the CLA has been correctly complied with in respect of important articles. Trade unions may only make such a request if they have reasonable grounds to do so, on penalty of a fine. Promoting compliance with the CLA is not limited to trade union members. These activities are financed from the SOOB fund. The employers' organisations also receive SOOB funding to promote compliance. Reverse burden of proof cases are lengthy procedures. The required due diligence in building up a file, raising the issue with the employer and, if necessary, taking legal action limits the number of compliance cases that can be dealt with at any one time. At the end of June 2018, 328 compliance files were being processed. There are few, if any, foreign drivers who make a report.

The reversed burden of proof replaced a joint supervisory body (Supervisory Board) that carried out checks in the sector – whether or not as a result of having received a report – at the turn of the century. Following criticism on the Supervisory Board, TLN tried to promote compliance in the early years of this century by arranging for accounting audits carried out by the Stichting Naleving Cao Goederenvervoer (NCG). Each year, the NCG contacted about one-third of the operators with employees in the sector for a compliance audit. These compliance audits detected infringements at a large number of operators. However, these did not only relate to deliberate and major infringements, but also to minor infringements or infringements due to ignorance. The fact that the NCG was only able to check TLN members in the periods when there was no universally applicable CLA was mainly responsible for the dissolution of the NCG.

Following the introduction of the Bogus Self-Employment Arrangements Act (Wet Aanpak Schijnconstructies; WAS), TLN and Evofenedex developed the

PayChecked quality mark. If a forwarder or carrier outsources to subcontractors, the payroll records are checked once every two years by an inspection agency. Where an operator subcontracts, the payroll records of subcontractors are also checked. When everything is found to be in order, the operator receives the Pay-Checked quality mark. TLN also offers operators support in obtaining the quality mark. The trade unions are not involved in Paychecked.

Other sectors where joint supervision of the CLA is organised are, for example, the taxi sector and the temporary employment sector (Stichting Naleving Cao Uitzendbranche).

Conclusion: Achieving compliance with the CLA is a labour-intensive activity which can take a long time and there is also a low probability of being caught.

5.4 MOBILITY PACKAGE

In May 2017, the European Commission launched a large number of measures to adapt existing directives under the name Mobility Package (MP). With this MP, the European Commission wanted to make the European transport sector fairer, more transparent and more social: in other words, to achieve a level playing field in Europe. An evaluation had shown that social legislation was still very relevant to the road haulage sector:

*"Road social legislation is found to remain a relevant and proportionate tool to address the three **risks** of the sector – 1) an unlevelled playing in the transport market, 2) deterioration in social and working conditions of drivers and 3) deterioration in road safety levels – especially since market competition in the road transport sector has become increasingly intense and this exacerbates the risk of non-compliance by undertakings or drivers who are under greater pressure to remain competitive"*[57].

One conclusion was that the lack of clarity/complexity of the rules - and the different interpretations of those rules by different Member States – and the lack of effectiveness of enforcement are responsible for non-compliance. There was considerably less enthusiasm for the measures that the EC wanted to introduce into the MP to achieve these goals. In Europe, Western European countries (The Road Alliance) have challenged the cabotage liberalisation component in particular[58].

57 EC, 2016, Ex-post evaluation of social legislation in road transport and its enforcement (Final report; study contract no. MOVE/D3/2014-56).
58 Nieuwsblad Transport, 24-05-2018, West-Europa vormt front tegen vrijlating cabotage (Western Europe takes a stand against liberalisation of cabotage).

The Netherlands is the only Western European power that is not (yet) part of the Road Alliance. The countries oppose liberalisation because the differences in working conditions between Western and Eastern European countries remain invariably large.

The original proposal on cabotage significantly broadened the possibilities. Currently, a foreign carrier (or a foreign subsidiary of a Dutch carrier) may carry out a maximum of three cabotage journeys in seven days, following on from an international journey. The maximisation of cabotage journeys does not make it attractive to build a business model that includes cabotage as an essential part. In the EC's original proposal, this would be unlimited for a period of five days, after which the border of the country has to be crossed again. This does, however, make it possible to develop a business model. A study commissioned by the Dutch Ministry of Infrastructure and the Environment into the effects of the Mobility Package showed that cabotage in the Netherlands was expected to increase from 1% to 5-10%[59]. As a result of the discussions in the Council of Ministers and Parliament, the Mobility Package eventually resulted in a tighter regulation of cabotage: the existing regulation (max. 3 journeys in 7 days) was expanded by the requirement that the vehicle had to be out of the country for 4 days afterwards.

The Mobility Package established that the current limit for licensing in the European Directive (3,500 kg load capacity) is increasingly out of step with reality. An increasing proportion of transport in the sector is carried out by lighter vehicles. This relates not only to the fulfilment of e-commerce orders, but also three-axle delivery vans in domestic and cross-border transport to circumvent licensing requirements. The EC therefore proposes that vehicles between 2,500 kg and 3,500 kg total weight should also be subject to licensing, but for lighter vehicles only the requirements of genuine business presence and creditworthiness apply. Nationally, the limit may be set even lower, as is already the case in the Netherlands where the requirements of reliability and professional competence already apply to lighter vehicles (from 500 kg load capacity).

In order to enhance compliance, the EC wishes to move as far as possible towards a single, uniform set of rules. However, until such time as the proposed measures can adequately resolve the problems, the social partners obviously do not want to relinquish the current option offered by national legislation of deviating. This applies to licensing requirements as well as employment require-

59 Ecorys, Effecten Europees Mobiliteitspakket (Effects of the European Mobility Package), 7 December 2017.
60 Statistics Netherlands (CBS).

ments: the driver must be employed by the operator (or a recognised temporary employment agency). This requirement prevents self-employed drivers without a vehicle from being employed. In a sector such as construction, the number of salaried employees has fallen drastically due to the arrival of self-employed workers (around 300,000 people in 2017).

The Mobility Package attempts to clarify application of the Posting of Workers Directive: posted workers are entitled to the basic working conditions applicable in the country where the work is generally carried out. International transport is still excluded from the Posting of Workers Directive, as in the case of cross-border transport it is unclear which country is the 'usual country of employment'. The EC proposals (right to basic working conditions if a person stays in a country for more than three days) make enforcement of the Directive virtually impossible (e.g. if a person stays in several countries for more than three days). The social partners in the Netherlands have joined forces to influence decision-making in Europe and to propose alternatives in order to achieve a level playing field and prevent social dumping.

Decision of July 2020

In July 2020, Parliament approved the new rules on postings: these rules stipulates that, in the case of temporary work in another country, at least the basic working conditions of that country must be applied. Transport had been excluded, but that has now been clarified. In the case of cabotage, the Posting of Workers Directive applies from day one. Member States may also include pre- and post transport of multi-modal transport in cabotage (e.g. goods arriving in and departing from ports). From then on, working conditions in the country of cabotage must be respected.

In the case of cross-trade transport (transport between two Member States performed by a carrier not registered in either Member State), it is permitted to carry out a maximum of 2 cross-trade journeys (1 outward and 1 return, 2 outward and 0 return or 0 outward and 2 return) without applying the Posting of Workers Directive.

Additional requirements have been formulated for the requirement of genuine business presence: the operator must have a record-keeping system, the operator must be accessible to vehicles, the operator must have a VAT number and must be a taxpayer in the country where it is established and where transport activities are carried out, there must be an even balance between number of dri-

vers and number of vehicles. Vehicles must return to their country of residence once every eight weeks.

The Mobility Package also stipulates the ban on drivers taking their regular weekly rest in the vehicle cab. Employees are not allowed to take the weekly rest of 45 hours or more in the vehicle cab and will have to spend the weekend in a hotel or guesthouse at the employer's expense. They must be able to go home every three (if the fortnightly long weekend rest is postponed) or four weeks. The new smart tachograph makes it possible to monitor these rules.

The Mobility Package complicates the systematic use (and underpayment) of drivers from low-wage countries. However, the restrictions also affect carriers from countries with relatively high labour costs. Dutch carriers are also subject to the same regulations: after three cabotage journeys in a third country, the vehicle must in any case return to the Netherlands once every eight weeks, the driver is no longer allowed to spend his long weekend rest in the vehicle cab and he must return to the Netherlands once every three or four weeks.

Dutch transport operators operating internationally will also have to apply the new rules in the Mobility Package. They will be less affected by the measures: Dutch drivers generally are not away from home for more than three weeks. However, Dutch carriers will still have to accommodate the new constraints, which may increase the complexity of planning (and therefore the importance of automation). Because of the extra rules, planning becomes a bit more complex with potentially negative consequences for efficiency. However, it also becomes more difficult to base a business model on social dumping (the lowest labour costs), which can improve efficiency. If delivery vans from Germany are currently carrying out domestic transport in the Netherlands because they can do so without a licence and with cheap Eastern European drivers, they will soon have to start optimising the use of their vehicles, because the licensing threshold has been lowered and cabotage or posting regulations are applicable.

Conclusion: The Mobility Package creates clarity on a number of points and increases the chances of achieving a level playing field, better international cooperation in the field of monitoring and enforcement and greater protection for workers in the sector. It will still take some time before all the provisions are in force, as the Directives have yet to be transposed into legislation (with the exception of rules on driving times and rest periods).

6 Labour market

6.1 SCOPE OF EMPLOYMENT

The transport and logistics sector, as described in the chapter on demarcation, is just one part of the total transport and logistics activities in the Netherlands. In 2015, an estimated 890,000 people were employed in a logistics function (logistics sector house). Approximately 305,000 people in a higher logistics profession (senior secondary vocational education level 3/4, higher professional education or university). Some 150,000 people work in the transport and logistics sector.

As a result of developments in the volume of transport, the sector workforce (covered by the CLA) increased again from 2014 onwards. In the fourth quarter more than 150,000 people were working in transport. Following on the Vision 2015 report, the quality of labour market data has improved. Because data are collected in a different way, data from after 2010 are not comparable with data from before that time on a one-to-one basis[61]. The following conclusions can be drawn, however:

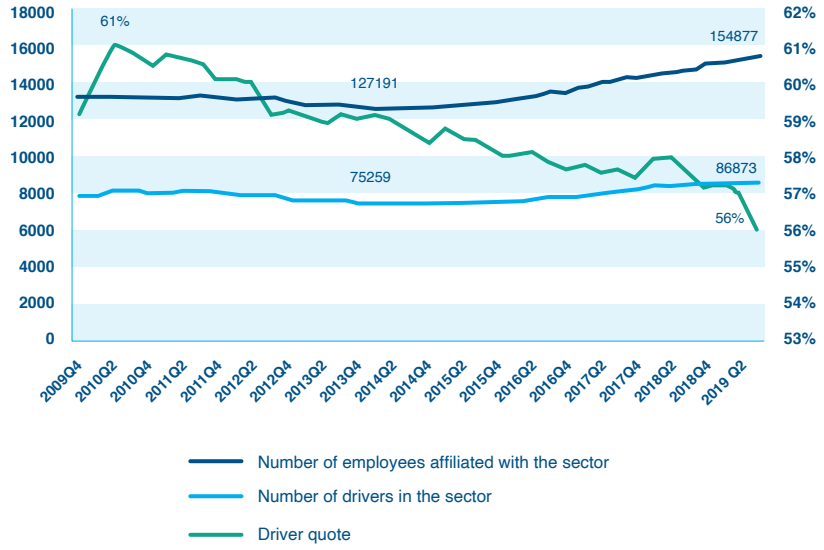
- It is only since 2016 that employment in the sector has been above the level of 2010. An additional 10% will be added in 2017 and 2018.
- The job vacancy rate in the sector has been increasing rapidly in recent years: at the end of 2017, the job vacancy rate reached the level of 3.1%, thus returning to the 2007 level. At its lowest point (end of 2013), the job vacancy rate was lower than 0.5%[62].
- In the first quarter of 2020, no impact of the coronavirus crisis could yet be seen in the figures of the Sector Institute[63]. TLN's fourth corona monitor[64] shows that 85% of those surveyed did not expect the crisis to result in a wave of redundancies. There are considerable differences between market segments, however. A decrease in the number of employees can be expected, therefore, the extent of which is not yet clear. Now that there has been a second round of support from the government, the impact may also be delayed.
- An employee's position is not discernible in the information provided by the Pension Fund. A number of criteria are used to determine whether a person is a driver. These criteria relate to, among other things, the participant's job

61 For 2010, based on a sample of companies and estimates and now on the administration of the Transport Sector Pension Fund.
62 TLN, 2017, Business cycle survey 2017.
63 Sector monitor Q1 2020, STL
64 https://www.tln.nl/nieuws/vierde-coronamonitor-beeld-stabiliseert/

category. The assumption is that drivers are categorised in the C, D or E scales of the CLA, are not promoted from lower categories and do not advance to higher job categories. It is also assumed that they work more than 80% and that female employees who do not receive variable remuneration work in the office. After a dip in 2013/14/15, the number of drivers is again higher than in 2010/11. The share of drivers in total employment has slowly decreased from more than 60% in 2011-12 to 56% in 2019 (3rd quarter) (see Driver Quota in Figure 32). Delivery van drivers may fall outside the definition of driver in the data from the Transport Sector Pension Fund (because they are categorised lower than scale C).

The increase in the number of delivery van drivers is therefore not reflected in the Pension Fund's employment figures in the category of drivers, but in the category of other personnel. And then only insofar as delivery services employ employees under the CLA. Another explanation for a lower proportion of drivers is the increase in the number of drivers working via employment agencies. Agency workers (and self-employed drivers) are generally not participants in the Pension Fund. Of the flexible shell, only on-call workers are represented in the Pension Fund's data.

figure 32 Number of employees in the sector, broken down by driver



Source: STL and Transport Sector Pension Fund, 2019, Labour Market Monitor 2019 3rd quarter

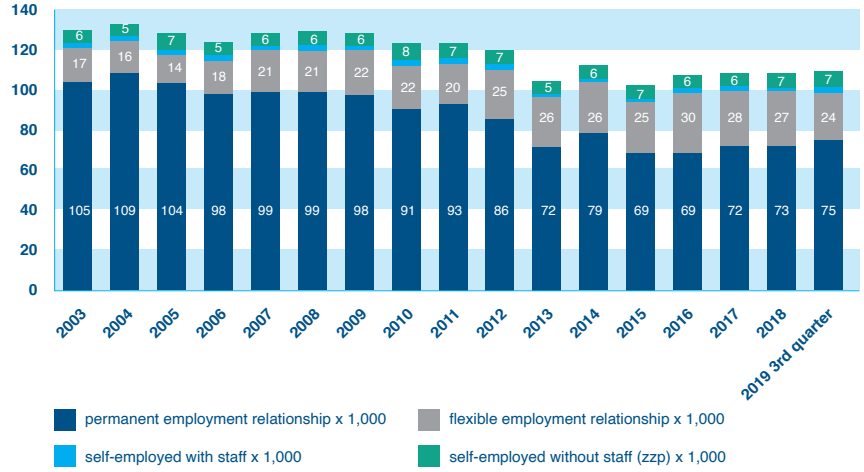
Proportion of flex workers among drivers

Statistics Netherlands provides data on the proportion of flex workers among road transport drivers, but:

- Statistics Netherlands' definition of road transport is broader (and includes own transport).
- Statistics Netherlands counts people with a temporary contract among the flexible employment relationships (while they reappear as participants in the Pension Fund's data).

The figures from Statistics Netherlands therefore cover all transport, but because professional goods transport accounts for 80% of this, the data are also relevant for the sector. From 2011 onwards, the number of flexible employment relationships among drivers has been rising, from 20,000 to 30,000 in 2016; this figure was at 24,000 in 2019. The business survey by the Sector Institute for Transport and Logistics in 2019 showed the proportion of flex workers to be about 18%, of which 8% is on-call workers, 6% agency workers and 4% freelancers. For logistics employees the percentages are 7%, 18% and 0%, respectively. These percentages are also higher for removal service companies and couriers: for removal service companies the percentage of on-call workers is 15%, the percentage of agency workers 12% and the percentage of self-employed 8%, for couriers these percentages are on-call workers 10%, agency workers 11% and freelancers 26%.

figure 33 Development in the number of road transport drivers, broken down into permanent, flexible and freelancers (x 1,000)



Source: Statistics Netherlands (CBS)

Conclusion: Employment in the sector fell after 2008, but the number of jobs exceeded 150,000 in 2018. The growth in the number of truck drivers lags behind the growth in other personnel. The shift to delivery van transport and logistics is causing the lagging growth in the number of truck drivers. In the first quarter of 2020, that number was 154,894.

6.2 Shift of roles

The shifts in transport have consequences for the profession of driver: long-distance transport is disappearing and transport is becoming increasingly short distance. The share of the international driver is decreasing. The international journeys still occurring are often journeys of less than 300 km. Only one third of the transport performance (measured in tonne-kilometres) is international transport over a distance of more than 300 km (see chapter 3). An increasing number of drivers are therefore driving relatively short journeys. Because trucks in international transport are on average better loaded[65] and because they achieve a higher average speed over long distances (longer journeys, less loading and unloading)[66], fewer drivers are needed for international transport to deliver the same transport performance. While the ratio in transport performance between short-distance and long-distance transport is 2/3rd-1/3rd, the ratio between drivers driving short distances - often single-day journeys - and drivers driving over 300 km is around 80%-20%. The position of driver has changed over the years. Short-distance drivers are subject to different demands than drivers who cross Europe. Since traditionally, drivers engaged in international transport often ended up[67] in pay scale E, this shift may lead to lower pay for drivers on average. Drivers on long international journeys are usually categorised in scale E. Short-distance drivers are more often categorised in D.

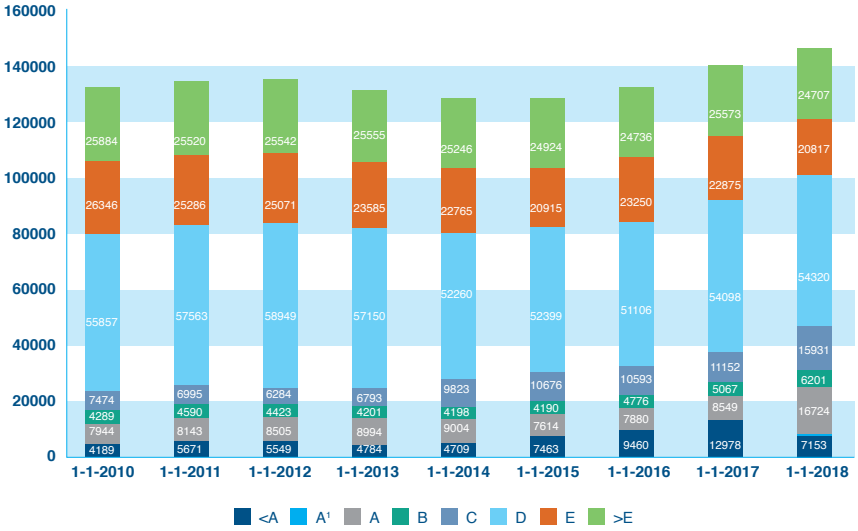
Conclusion: The number of truck drivers is not growing as fast as employment in the sector. Within that category, transport over distances of less than 300 km is increasing (less than 300 km) and the proportion of transport over longer distances is decreasing.

65 In 2017, an average of 11.7 tonnes internationally versus an average of 8.4 tonnes domestically (Source: Statistics Netherlands, processed by Panteia and Basic & Beleid).

66 Panteia assumes a vehicle 'rate of march' (kilometres divided by active duty period) of 55 km/h in domestic and international transport.

67 The distance a driver has to travel says nothing about the weight of his job. Jobs in domestic transport may impose requirements that are comparable to, or more onerous than, those for jobs in cross-border transport. On average, however, international drivers will be more likely to be assigned to scale E and national drivers.to D. When it comes to assigning workers to scales, not only objective job rating criteria but also labour market considerations are taken into account.

figure 34 Distribution across job categories of active participants in the Transport Sector Pension Fund



Source: Transport Sector Pension Fund, processed by Panteia and Basis & Beleid[68]

The development in employment in the sector according to job level was also examined, using data from the Transport Sector Pension Fund. The Pension Fund has information on the hourly wages of all active participants, drivers and non-drivers. This method is not watertight: the hourly wages can belong to different pay scales[69] In that case, the lowest pay scale that could apply has been chosen. These data show that the number of people with an hourly wage from scale E decreased from 26,346 in 2010 to 20,817 in 2018. The size of the group of workers with an hourly wage from scale D remained more or less the same, but the number of people with a lower hourly wage increased significantly. One explanation for the increase in the number of employees with an hourly wage from scale B is the shift from heavy transport to light transport (e-commerce). The increase in activities in logistics could explain the increase in A and B, but it is expected that the largest growth in the logistics sector is outside the CLA for the professional goods transport sector (and therefore outside this pool of employees). Another explanation is that lateral entrants who do not yet have a CE driving licence enter in scale C0, but enter in scale D0 if they have the driving licence. Some 2,000 lateral entrants joined the pool in the period 2015-2017.

68 The assumption has been made that a person is in the lowest job group in which that salary occurs. In reality, some will be assigned to the lowest steps of higher job groups.

69 That does not happen very often: the salaries for D1 and C2 were the same until 2018 (those people were always allocated to C). In 2018, B6 was equal to D3 (those people were allocated to B6 in 2018) and A4 was equal to 0 (allocated to A).

From 2014 onwards, the number of people with an hourly wage lower than A0 (€9.37 per hour in 2018) increased strongly. In 2018 the number of people with pay lower than A0 declined from almost 17,000 to about 7,500 (a small part of this was due to the introduction of a new scale A' (483 people)). Reasons for the large number of people with hourly wages lower than A0 could be: youth wages (art. 20) or minus steps (art. 22):

- Youth wages: of the group of approximately 7,000 people, more than 2,600 people receive an hourly wage that corresponds to a youth wage percentage of the regular wages in the wage tables for Goods Transport Netherlands and TLN. Table 13 shows the numbers of people receiving an hourly wage equivalent to a youth wage percentage[70] of the wages for adult workers.
- Minus steps: In 2018, 296 people received the hourly wage corresponding to the minus steps in article 22 of the CLA.

table 13 Hourly wages Transport PF

Scale	Art. 20.1a	Art. 20.2a	Total
Scale A'	9	62	71
Scale A	158	310	468
Scale B	95	97	192
Scale C	486	1077	1563
Scale D	24	153	177
Scale E	173	0	173
Total	945	1699	2644

Source: PFV (Transport Sector Pension Fund)

For about 4,400 people, it is not clear why they receive an hourly wage that is lower than A0.

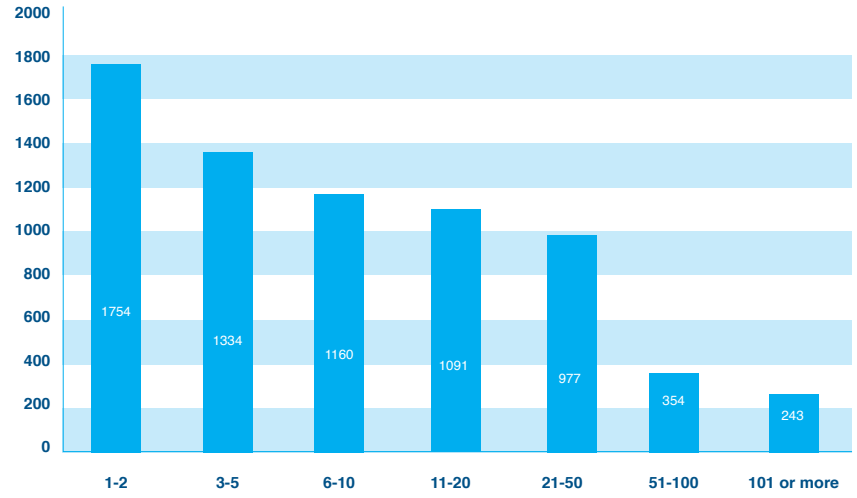
Conclusion: Employment in the sector is only increasing in the lower pay scales. The number of people in scale E decreased by more than 20% in 8 years and has remained constant from the moment the sector resumed growing. The growth is in the lower pay scales. In 2018, scale A in particular grew strongly, particularly at the expense of people with a lower hourly wage than A. The number of people with an hourly wage lower than A' is greater than can be explained by minus steps or youth wages.

70 The youth wage rate ranges from 45% for 15-year-olds to 95% for 21-year-olds.

6.3 DISTRIBUTION ACROSS BUSINESS SIZE

According to the licensing body NIWO, there were 13,364 licence holders in 2018. 5,571 of these have one licence (self-employed drivers). Only companies with employees must be members of the Pension Fund. In the third quarter of 2019, 6,912 companies were affiliated with the Pension Fund. Small businesses make up a large part of the sector. Data from the Transport Sector Pension Fund show that 61% of companies have fewer than 10 employees. A further 1,091 companies have fewer than 20 employees and fewer than 600 companies have more than 50 employees.

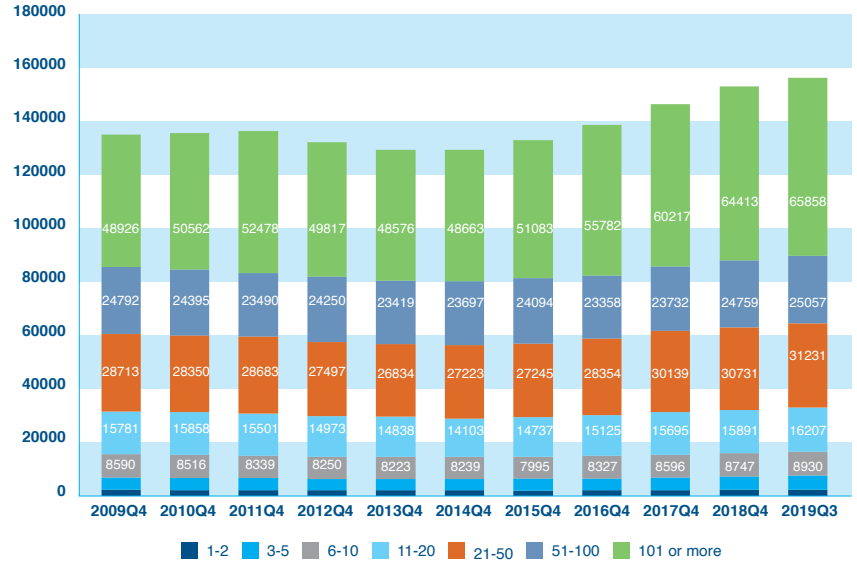
figure 35 Business size by employer (number of businesses), 2019 Q3



Source: STL and Transport Sector Pension Fund, 2019

While small businesses constitute the lion's share of the sector, their share in employment is small (almost 60% of employees work at companies with more than 50 employees).

figure 36 Employment by business size, 2019 Q3



Source: STL and Transport Sector Pension Fund

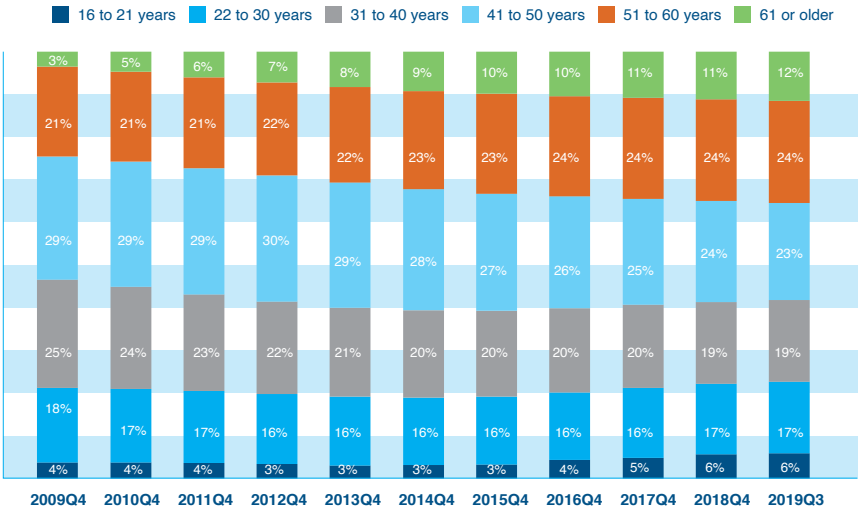
Employment has been growing since 2014, particularly in the largest companies (101 or more), partly as a result of acquisitions. The middle segment is disappearing very slowly: the share in employment of the categories of companies with more than 10 and fewer than 50 employees slowly decreased from 32% to 30% over this period.

Conclusion: The share of large companies in employment is increasing. Almost 60% of the employees work at companies with more than 50 employees.

6.4 AGE STRUCTURE

The age structure is also changing. Vision 2015 referred to the greening and ageing of the sector. The ageing of the sector is continuing. The development in the workforce after 2008 mainly impacted the share of employees between the ages of 30 and 50 (from 54% in 2009 Q4 to 42% in the third quarter of 2019). Until 2014, the share of the youngest employees also fell. But because the number of employees started growing again from 2013 onwards, the number of employees in the under 30s category is increasing again, with the share of employees aged 15+ (mainly young people) growing in particular. 36% of employees are older than 50.

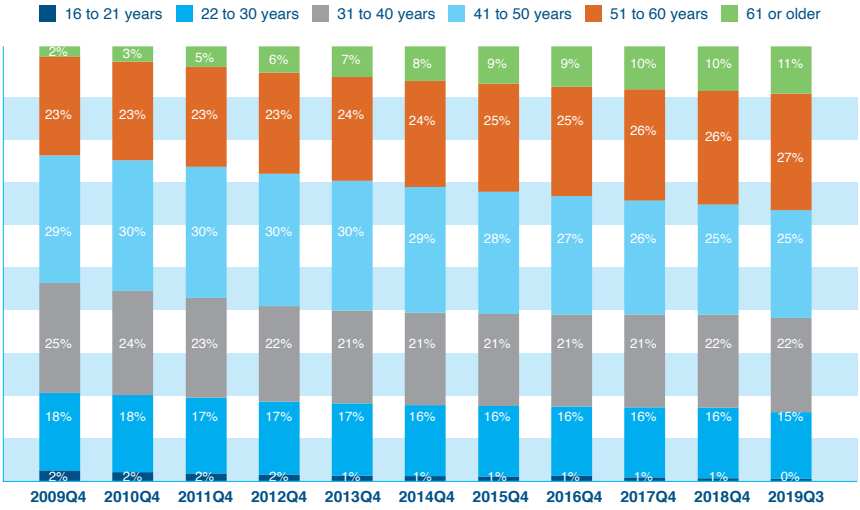
figure 37 Age structure all employees in the sector



Source: STL and Transport Sector Pension Fund

38% of drivers are older than 50. Only 15% of drivers are under 30, this figure is 23% for all workers.

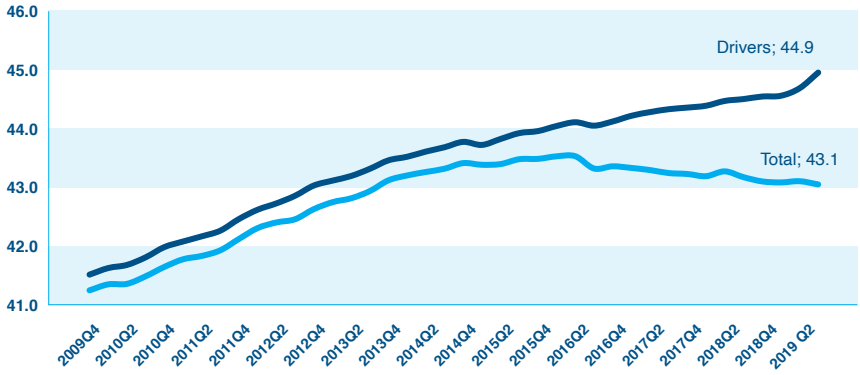
figure 38 Age structure drivers in the sector



Source: STL and Transport Sector Pension Fund

The average age of drivers continues to rise while that of other workers is falling.

figure 39 The average age of drivers and other workers in the sector

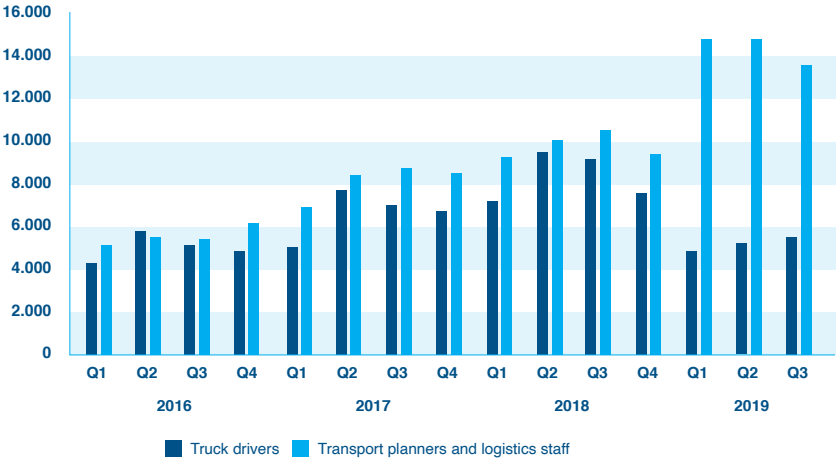


Source: STL and Transport Sector Pension Fund

6.5 ENTRY AND OUTFLOW

The growth in employment is causing personnel shortages. The number of job vacancies has been increasing rapidly in recent years.

figure 40 Development in job vacancies for drivers and transport planners and logistics staff

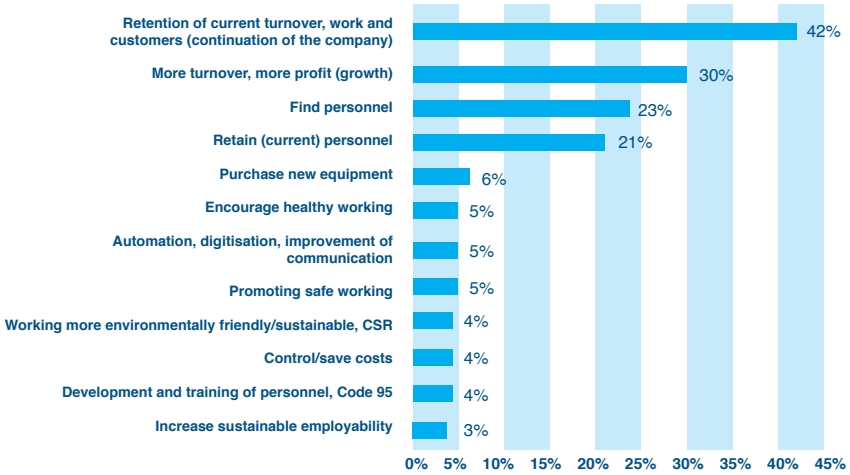


Source: STL (based on UWV)

The scarcity of personnel is a bottleneck for many companies. When asked about the key issues as part of STL's survey of businesses, employers mentioned many issues related to the availability of personnel.

In the first quarter of 2020, the number of job vacancies was lower than in the first quarter of 2019, both for drivers (10,600 in the first quarter of 2020, 14,800 in the first quarter of 2019) and for transport planners and logistics personnel (4,700 in the first quarter of 2020 and 4,900 in the first quarter of 2019).[71]

figure 41 Expected key issues for the next two years (multiple answers possible)



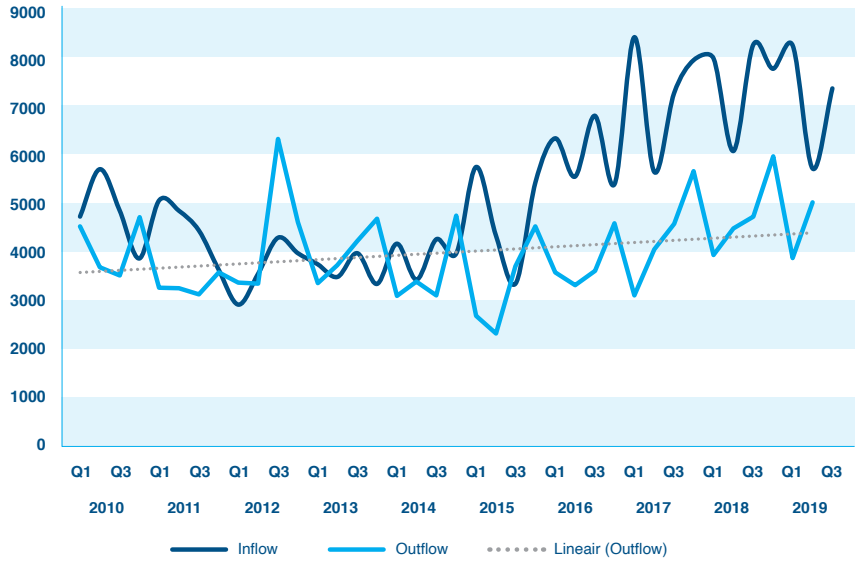
Source: STL and Panteia, 2019, Business survey 2018

Not only must the growth in the number of jobs be filled, there has also been a large outflow of employees from the Pension Fund's database every year. Many new people are needed because of the growing demand for transport, but also because a large number of personnel are leaving. The sector therefore has a great interest in maintaining a positive image and in new entrants on the labour market, young people and lateral entrants (motivating), but the sector has an interest in retaining people (binding) as well - certainly in a tightening labour market.

The growth in employment (number of participants in the Transport Sector Pension Fund) is the result, on the one hand, of growing inflow which reached a peak, of 8,410 people, in the 1st quarter of 2017 (there were similar peaks in Q3 2018 and Q1 2019) and, on the other hand, of slightly increasing outflow of approximately 4,000 people per quarter.

71 STL, quarterly monitor Q1 2020

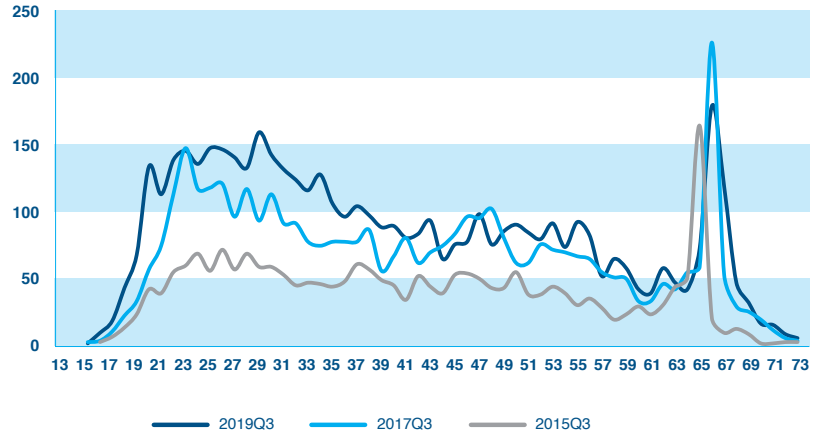
figure 42 Development in inflow and outflow per quarter from 2010 onwards



Source: STL and Transport Sector Pension Fund, 2019, Labour Market Monitor 2019 3rd quarter

The slight increase in outflow is also the result of an ageing population in the sector. The percentage of employees over 55 will increase from 15% to 25% from 2010 to 2017. Outflow takes place at all ages, but with a (growing) peak around the date of retirement, which moves with the state pension age until 2017. The outflow is much higher than would be due to retirement alone. The outflow in the age category up to 30 years is also increasing. In 2019, the outflow in almost all categories was greater than in 2015 and 2017. For a long time there has been larger net inflow than outflow. Some of the inflow and outflow can be explained by economic growth, which causes the labour market to become more dynamic and prompts more job changes, therefore.

figure 43 Outflow from the sector by age, in three different years

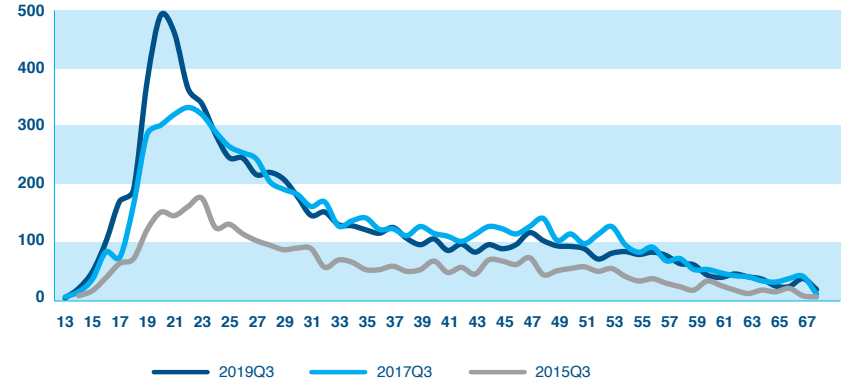


Source: STL and Transport Sector Pension Fund

6.6 MOTIVATING (POTENTIAL) EMPLOYEES

The vast majority of the inflow is under 30 years of age. Motivating young people remains a major challenge for the sector in the light of the future decline in the number of young people finishing education.

figure 44 inflow in the sector by age, in three different years

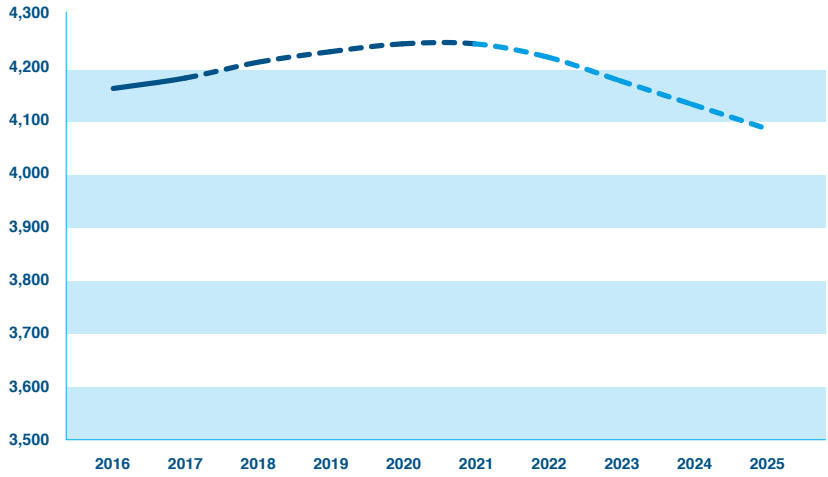


Source: STL and Transport Sector Pension Fund.

Inflow of young people from education

Many - almost half - of the new employees joining the sector from education come from senior secondary vocational education (47%). A fifth of the inflow comes from secondary education, a quarter from higher professional education and just under 10% from a university programme. It is expected that until 2020 there will be an increase in the number of registrations for the Goods Transport and Logistics course in senior secondary vocational (MBO) training, and that this will decrease by about 1% on average per year. .

figure 45 Forecast number of participants in MBO in Goods transport by road



Source: CBS and ABF Research, processed by STL

In senior secondary vocational training (MBO), students more often opt for the MBO in Logistics course instead of the MBO in Goods transport by road[72]. The sector usually recruits senior secondary vocational students via a BBL training course. 27% of companies in the professional transport of goods and 36% of companies in logistics are training companies. Less than half of them actually employ a BBL student (STL company survey).

During the 2017/2018 school year, there were 486,421 MBO students, 11,016 of whom enrolled in transport and logistics courses (2% of MBO students). Table 14 shows the number of students and graduates per job.

72 Statistics Netherlands (CBS).

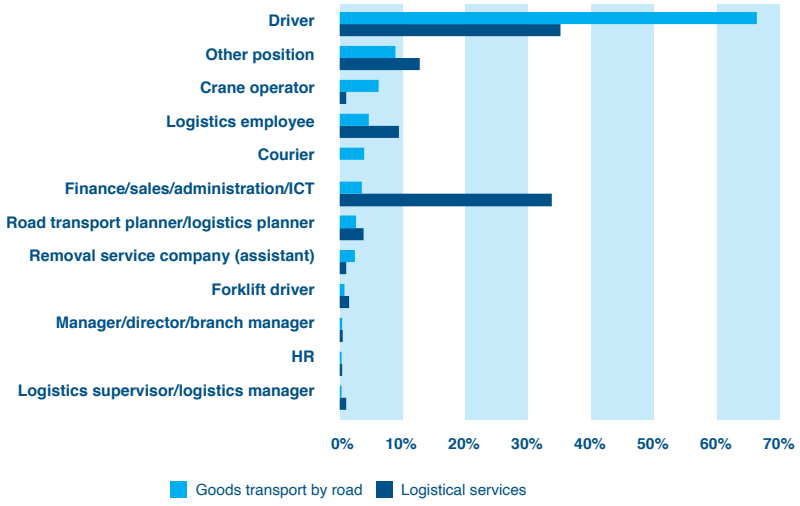
table 14 Number of students and graduates by job, 2018/2019 school year

Specialisation	Students 2018/2019	Graduates 2017/2018
Logistics employee	2,731	1,406
Logistics team leader	2,686	997
Road transport driver	1,881	575
Logistics supervisor	1,881	375
Manager T & L	1,535	345

Source: SBB Dashboard

Graduates not only flow out to the transport and logistics sector, but enter various sectors (especially logistics graduates). This inflow is relatively small compared to the number of job vacancies. In the first six months of 2018 there was a total of 278,141 vacancies for MBO graduates (SBB Dashboard) and 19,217 vacancies for positions in transport and logistics (broadly defined).

figure 46 Job vacancies in Transport and Logistics

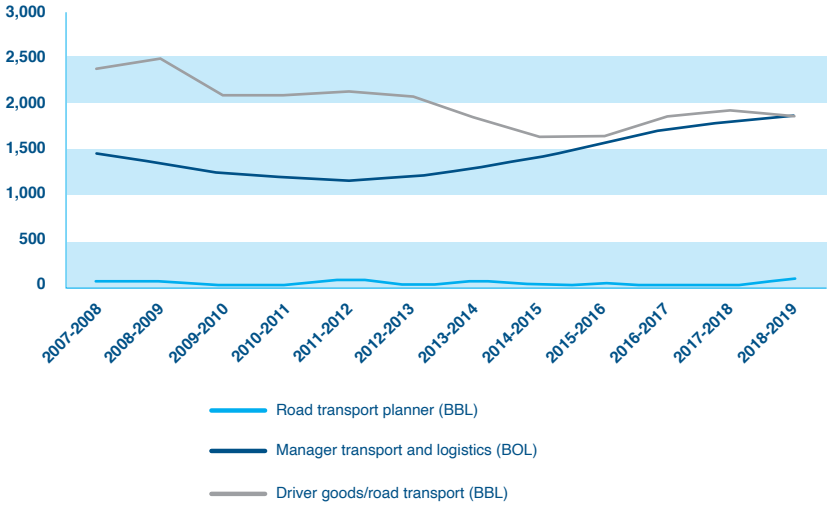


Source: STL, 2019, Labour Market Report 2018

The inflow percentage of young people (school-leavers) in jobs in transport and logistics (broadly defined) is about 15% of the total job vacancies for logistics employees and about 10% for road transport drivers. The number of participants

in an MBO course has been rising again in recent years. Due to demographic factors, this increase will decline after 2020, with fewer young people attending school. See figure 47 for the number of participants in the MBO course Goods transport by road, school years 2007/2008 to 2018/2019.

figure 47 Number of participants in goods transport courses 2007-2008 to 2018-2019

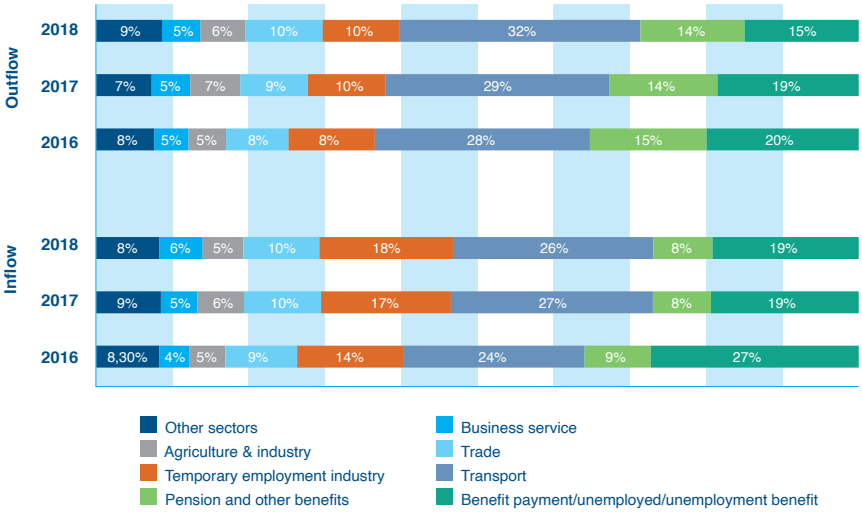


Source: CBS/ABF Research/DUO, processed by STL

If the number of job vacancies remains the same from 2020 onwards, the share of inflow from education courses will decrease. If the job vacancies increase even more, the share from education courses will be even smaller. In the interviews the companies working with BBL students indicate that the number of students has decreased. While there used to be more entrants per year previously, now there are one or two.

Origin of lateral entrants

figure 48 Inflow and outflow by sector, 2016, 2017 and 2018



Source: CBS/ABF Research/DUO, processed by STL

It is becoming increasingly less common for lateral entrants to come from a benefits/unemployment position. The largest part comes from the transport and logistics sector broadly defined (transport and logistics also includes sectors such as passenger transport, transport by water and by air) and the temporary employment sector. The sector has to compete in the labour market with a large number of other sectors suffering from shortages. Other sectors fishing in the same pond (MBO technical) such as construction, metal, public transport all expect increasing personnel shortages. Both objective and subjective criteria play a role in this competition for personnel.

Objective criterion: market conformity of CLA

An objective criterion is whether working conditions in the sector are in line with the market. A distinction can be made here between pay and working times on the one hand and modernisation agreements on the other. The arrangements for pay and working times can be compared with those in other CLAs for positions of comparable weight. In 2007, it was determined in the future vision that the remuneration of workers in the professional transport of goods sector lags behind that of a number of other sectors fishing in the same pond::

table 15 Abbreviations by sector

Sector	CLA abbreviation
Metal and Electrical	Metal
Public transport	Public Transport
Wholesale of food	FSGIL
Concrete products industry	BFBN
Dairy industry	Dairy

Source: Panteia and Basis & Beleid

In 2008, the (maximum) wage per hour lagged on average 19% behind the wage under the CLAs with which it was compared. For people in job categories C, D and E the difference was less: 15% for C, 14% for D and 16% for E, respectively. The salary level of the CLA did not make the sector attractive to job-seekers.

Working hours have traditionally been very long in the sector; especially drivers and logistics employees can compensate for a relatively low hourly income by working a lot of hours. In Europe, an average working time of 48 hours is permitted, but the averaging over a longer period of time and the latitude in the definition of availability time still allow for long working days and weeks. That structural overtime is still commonplace in the sector is demonstrated by the fact that professional goods transport is one of the few sectors that includes structural overtime in pension accrual.

In 2018, the level of the CLAs[74] as of 1 January 2018 was re-examined. This time, the construction industry was also included in the comparison[75], because ORBA is now also used in the CLA for the construction industry.

The comparison of the CLA by the AWVN shows that in the lower job categories, the difference with the other CLAs (excluding the CLA for the construction industry) has narrowed. Nevertheless, a difference of at least 9% remains (see figure 49). That is not offset by other working conditions: the allowance for working in shifts or at irregular times is usually lower. The employer does contribute more to pension (12-13%[76] of the annual income in scales C, D and E, compared to 7-10% in bulk metals, wholesale trade, the concrete products industry and dairy; employers in the public sector (and construction) contribute even more to

74 The comparison may be less relevant for the parcels market, which changed significantly between 2007 and 2018.

75 In 2007, it was not yet possible to convert positions in the Construction CLA to ORBA. At that time, the Construction CLA was not compared generally, but only for specific positions.

76 As income increases, the employer's contribution to the pension scheme increases, because the franchise becomes less important in relation to income.

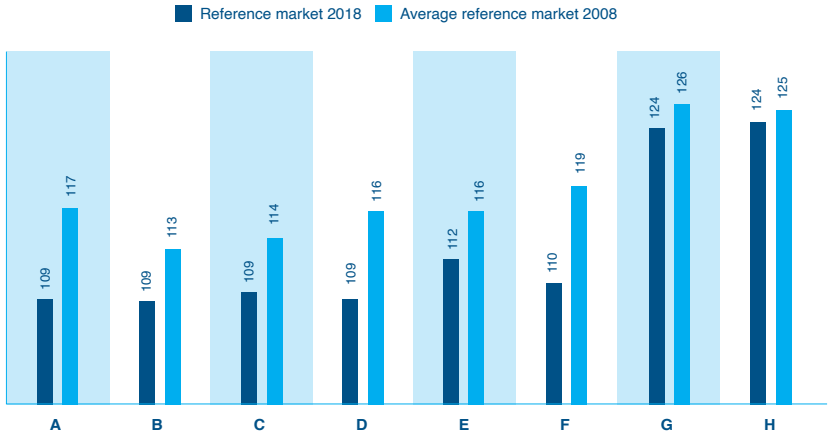
pension). The pension is therefore relatively good, but also expensive for the employee and less important when a person is choosing a career. Table 16 shows that the CLA is lagging behind in most areas.

table 16 Summary comparison of working conditions in the professional goods transport sector compared to other sectors

Annual income		Hourly income		Overtime	ORT	Pension	Gross/ net
Start	End	Start	End				
-	-	-	-	-	-/+	+	-

Source: AWVN

figure 49 Level of reference CLAs as a percentage of level of the Professional Goods Transport CLA



Source: AWVN, processed by Panteia and Basis & Beleid

Conclusion: The CLA still offers substantially less than other CLAs in sectors that are competitors in the labour market. However, the difference has decreased considerably compared to 2008 at the lower end of the CLA. Remuneration for employees in the lowest scales is 9% lower, but employers' contributions to pension are 3-5% higher than the benchmark.

Construction and logistics

The CLA for the construction industry has now been compared with the Professional Goods Transport CLA in the same way. In 2008, jobs in the construction industry were not yet rated according to the AWVN's ORBA methodology. At that time, the remuneration level of a number of specific jobs was looked at in the CLA for Construc-

tion. For 'C drivers', the CLA for Construction was 25% better in 2008, for 'D drivers' 26% and for 'E drivers' 21%. The AWVN 2019 survey shows that the difference for jobs in job categories C and D is still comparable to 2008 (in C 25% and in D 27%).

In 2008, the level of remuneration for specific logistics jobs was also examined at a number of larger logistics companies, which are traditionally transport companies and have developed into logistics service providers (without wheels or with separate companies for transport and logistics). In the labour market, these companies are even more in direct competition with the professional goods transport by road sector. In 2008, the CLAs of three logistics companies were compared with the CLA for the Professional Goods Transport. The - unweighted[77] - average remuneration level for five of the most common jobs surveyed was 13% higher at the logistics service providers in 2008 than in the Professional Goods Transport CLA.

In 2019, the AWVN compared the working conditions of logistics service providers with the Professional Goods Transport CLA in the same way as the CLAs of other sectors. Logistics companies now also use ORBA or comparable job rating systems. In the comparison, seven large companies in the logistics sector were compared to the Professional Goods Transport CLA. Because a number of these CLAs (three) have been exempted from the mandatory application of the Professional Goods Transport CLA, it is logical that they provide for a higher level of remuneration, since a requirement for exemption is that the CLA is at least equivalent. Other companies (four companies) are not subject to this requirement because they do not transport by road. However, only one of the companies surveyed had an average remuneration level per hour that lags behind. In the lower job categories, the remuneration level was higher at all the companies.

figure 50 Maximum salary per job category as a percentage of the level of professional goods transport at 8 large logistics service providers.

Group	BGV	A	B	C	D	E	F	G	Avg
A	**100%**	106%	109%	-	99%	88%	94%	84%	**97%**
B	**100%**	111%	114%	118%	102%	91%	93%	84%	**102%**
C	**100%**	114%	116%	121%	106%	97%	95%	89%	**105%**
D	**100%**	114%	117%	121%	107%	101%	102%	93%	**108%**
E	**100%**	116%	118%	120%	107%	102%	106%	94%	**109%**
F	**100%**	119%	121%	124%	106%	104%	111%	96%	**111%**
G	**100%**	121%	124%	127%	106%	106%	114%	98%	**114%**
H	**100%**	126%	128%	130%	-	110%	116%	102%	**119%**

Source: AWVN

77 Unweighted average means that no account has been taken of the fact that some jobs are more common than others and that companies are not of the same size. Every position is weighed equally as is every company.

The following summary of the comparison of working conditions in professional goods transport compared to seven large logistics service providers shows that the Professional Goods Transport CLA scores average on three of the seven topics and below average on the other parts.

figure 51 Summary comparison of working conditions in the professional goods transport sector compared to seven large logistics service providers

Valuations:

Below average =	-	Average =	0
Above average =	+	Far above average =	++

Annual income		Hourly income		Overtime	ORT	Pension
start	eid	start	end			
0	-	0	-	-	-	0

Source: AWVN

Because the system of comparison is different than in 2008, and because more companies have been included in the study, comparison with the results in 2008 is not possible. But the conclusion of 2008 also applies now: the remuneration level in logistics services is usually higher, certainly in the lower job categories. The level of the Professional Goods Transport CLA is therefore not a reason for logistics companies not to want to apply the Professional Goods Transport CLA.

Qualitative criterion, arrangements in the CLA

In addition to material arrangements, immaterial provisions in the CLA can also make working in the sector attractive. Certainly in a tight labour market, other schemes can be important in addition to wages, such as:

- Job security
- Career policy/career pathways
- Working conditions
- Sustainable employability within and outside the sector
- Input on working times
- Types of contract
- Work-life balance
- Measures to make the profession more attractive on the labour market.

It is difficult to draw a strict dividing line between the different areas, which brings us to the following observations on the arrangements in the CLA in 2018[78]:

78 Various projects are ongoing in the sector to make working in the sector interesting and to increase sustainable employability via the Sector Institute rather than the CLA.

- Two of the seven CLAs contain measures on **job security**: for existing employees (BFBN and Public Transport) and the intention to hire 1,000 agency workers and apprentices (block or day release, BBL) (Public Transport).
- **Career policy/career pathways**: where there are training and development funds (Professional Goods Transport, Metal and Construction), there is also attention for the training of current and future employees. One CLA has the intention of putting lifelong learning into practice (Public Transport), also aimed at future work. Possibilities for advancement are also part of the topic of sustainable employability (see also there). There are no specific regulations on career policy in the sector CLAs, this takes place at company level (if at all).
- **Working conditions** are an important task for two of the three O+O (training and development)/A+O (labour market and development) funds (Construction and Professional Goods Transport). Two CLAs mention the possibility of an examination (entrance examination for Construction, medical examination for Professional Goods Transport). Two CLAs (Metal, Dairy) refer to policy that the employer must pursue, or give a brief summary of articles from the Working Conditions Act. In Construction, the Arbouw foundation was dissolved as of 01/01/2016; its successor is called Volandis. This foundation is more focused on sustainable employability. Working conditions receive less attention in the CLAs than sustainable employability. For SOOB, STL carries out the implementation when it comes to working conditions, in 2016 this involved dynamic Risk Assessment, toolboxes, and the safe and healthy working campaign. The number of companies using the sector Risk Assessment grew in 2017 and now amounts to 563. DRIVE is an awareness-raising campaign about the importance of healthy and safe working. Approximately 720 people took part in 48 workshops. That is a fourfold increase from 2016. For the first time, the DRIVE offering also included a specific workshop for managers in 2017. A total of 30 managers participated[79].
- One CLA (FSGIL) mentions training in the context of **sustainable employability**, which can also be for work outside the sector. In addition, all CLAs provide for more annual leave days as employees age, with one CLA (FSGIL) providing for more sustainable employability days with increasing age. In almost all CLAs (except for Construction), there is no obligation to work overtime and/or night shifts or extra late shifts after a certain age (between 50 and 10 years prior to the state pension age applicable at that point). CLAs that have a O+O (training and development)/A+O (labour market and development) fund mention vitality programmes (Professional Goods Transport, Metal, Construction). A four-day working week is mentioned in five CLAs. In this context (sustainable employa-

79 STL, 2017, Jaarverslag 2017.

bility), the shorter working weeks are mainly intended for older workers, with or without full pension accrual. In two CLAs (Metal and Construction), the four-day working week is financed from annual leave days, age days and in part by surrendering salary. Three CLAs contain a generation pact scheme with the following working hours percentage/salary percentage/pension accrual percentage: Public Transport 90/94,44/100, BFBN 80/90/100 and Dairy 85/85/100. The agreement in principle in the new Dairy CLA contains a new scheme in relation to working less during the 5 years prior to the state pension date. In part, the old scheme remains in force

- The Professional Goods Transport CLA has **no scheme for a four-day working week** for older employees: older people who want to work shorter hours can only make use of part-time retirement at their own expense.
- In the agreement in principle in the Dairy CLA, 1% of the annual salary is available each year to increase employability (education, training, leave or a health or vitality programme).
- **Input on individual working times**: The extent of what has to be taken into account in timetables varies from very extensive (FSGIL), to a few points (Public Transport, Construction), to standard sentences (in consultation, Professional Goods Transport and Metal) to nothing at all (BFBN). The Professional Goods Transport CLA includes an experiment with a maximum number of hours, starting from 40 hours or more. There is also a PCB (personal choice budget) which allows the employee to buy time off or have a maximum of 4 days off paid out. In Public Transport CLA includes an experiment with more balanced and regular shifts and more custom rotations, for better work-life balance and more efficient deployment of personnel (from 01/01/2018: work as desired). The Construction CLA explicitly states that a working week of 4x8 hours is possible.
- **Input on collective working times**: at the company level, powers for works councils: in the Public Transport CLA, the employee participation body is explicitly involved in agreeing on timetabling conditions at branch level and in the implementation of Work as You Wish. The GIL CLA prescribes timetables from which departures may only be made under certain conditions after approval by the Works Council, just as in Construction, departures from the base times may only be made after approval by the employee participation body. In the Metal CLA, the consent of the Works Council is required for a different period for announcing work times. The BFBN, Dairy and Professional Goods Transport CLAs do not regulate anything above or beyond the law on this point.
- **Types of contract**: If agency workers are mentioned, they must be from certified agencies and pay according to the host company CLA. The BFBN CLA

strives to have as few agency workers as possible and gives the employee participation body a role if agency workers are used. The CLAs for Concrete and Construction are looking into banning payroll companies that do not apply the host company's CLA.

- **Work-life balance** (In addition to input on work times): All CLAs have options for paid short-term absence/leave, which is described in detail in all of them; most of this is regulated by law. Two CLAs explicitly mention the Flexible Working Act (Concrete, GIL). Only under the Metalektro CLA is it possible to save time and buy extra days off. The Dairy CLA provides that customised agreements on work times and leave can be made in a meeting between employee and manager.
- Furthermore, four CLAs contain intentions to promote the participation of specific groups in the **labour market** and the retention of workers. Such as:
  - Improving the labour market position of women, young people and immigrants (Metal).
  - Equal pay for equal work for men and women (Metal).
  - Promoting the inflow of women: priority in case of equal suitability or setting of targets (Metal, Public Transport, GIL, Construction);
  - The Construction CLA, under the heading 'image and inflow', contains protocol agreements on: lateral inflow, recruitment of former employees, teaching materials and examination, small professions and Human Capital agenda. All of this in the context of the impending shortage of 55,000 workers that the sector is facing.

The things that employees find important (as mentioned in interviews and exit survey[80]) are the balance between work and personal life, influence on work times and the length of the working day, prevention of incapacity for work, training and permanent employment.

Conclusion: The Professional Goods Transport CLA contains fewer schemes in the areas examined than the other CLAs. What is striking is the lack of a scheme for working less when approaching retirement. The Professional Goods Transport CLA is the only CLA without a scheme in this area.

The coronavirus crisis has caused many CLA negotiations to be postponed in 2020. Far fewer CLAs are being concluded than in comparable periods in previous years[81]. The Professional Goods Transport CLA was renewed unamended

80 See part 1.8 of the exit survey for the sources.
81 AWVN, monthly report on CLA (https://www.awvn.nl/nieuws/persbericht/cao-ontwikkelingen-loonafsprakenlager-mei-2020/)

for one year. Wage increases of 3.5% have still been agreed in vital sectors (health care, education). In other sectors the increases are around 1.8%. Substantive agreements are more difficult to verify.

Subjective criteria for the attractiveness of the sector: Image

Subjective criteria also play an important role in the choice of sector. Subjective criteria are difficult to measure. With regard to the image of the sector, the following can be noted, however.

Image: Simply Good Work Monitor FNV (GGWM)

The GGWM is a questionnaire on working conditions that has been put out by the FNV for several years. This survey is filled in on a voluntary basis by workers in sectors, often on their own initiative, but sometimes also at the request of a trade union leader. Employees can indicate whether they work in transport or logistics. The sector classification does not automatically correspond to the CLA domain, respondents in logistics in particular will often not be covered by the Professional Goods Transport CLA. Nevertheless, the data give an indication of the image workers have of the attractiveness of working in the sector. Table 17 compares the characteristics of respondents from transport and logistics with the characteristics of all respondents.

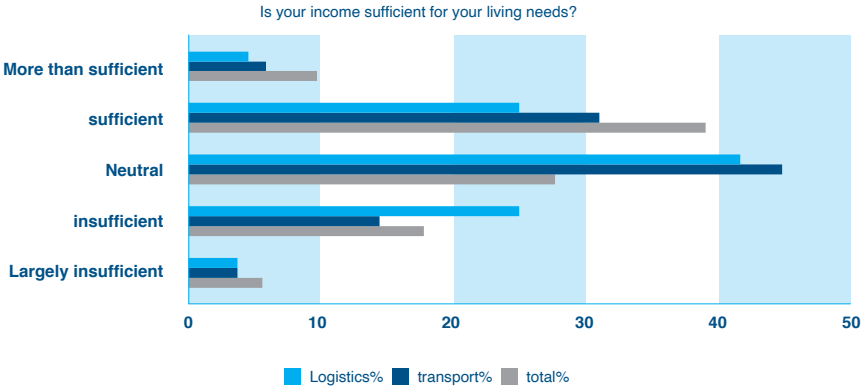
table 17 Respondent characteristics

	Total	Transport	Logistics
Number of respondents	55.031	311	383
% men	59	69	56
% women	31	17	23
% gender unknown	10	14	21
Average age when responding	52	62	51

Source: GGWM

The table shows that the group of respondents is not representative in terms of age: on average older than in the sector (members of the Transport Sector Pension Fund are on average 45 years old). The respondents from the logistics sector are also older than average (51 years compared to just over 43 in the CBS Transport and Storage sector). Young people are under-represented. It is less clear, but men in the transport sector are also under-represented. In the following figures a number of important or striking results from the GGWM are discussed in more detail:

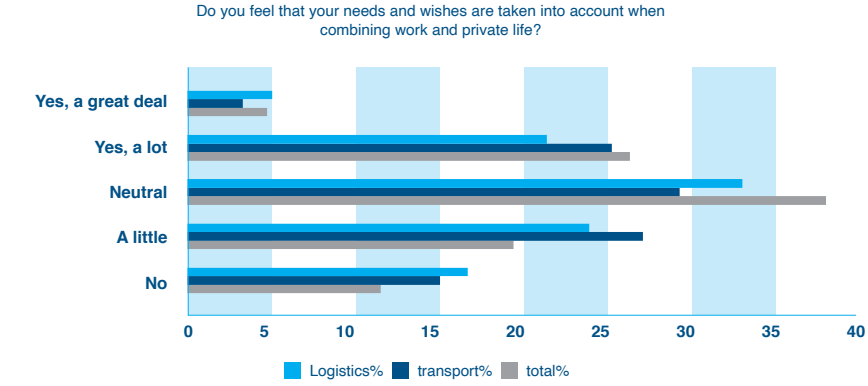
figure 52 Answer as to whether income is sufficient for the living needs of logistics and transport personnel



Source: GGWM

Transport workers rate their income as 'neutral' or 'adequate'. They are less likely than average to rate their income as 'more than adequate', but also less likely than average to rate it as 'well below adequate'. Employees in logistics in particular are on average more dissatisfied with their income. In the exit survey (see appendix), logistics employees are in fact more satisfied with the salary than other groups, the difference with respect to the group in the Simply Good Work Meter is that this group answering the exit survey falls under the Transport Sector Pension Fund and therefore had a permanent or temporary appointment. The group in the Simply Good Work Meter is broader, also including agency workers.

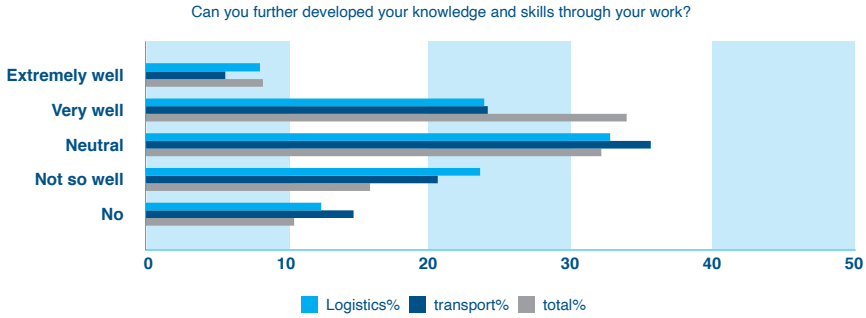
figure 53 Answer as to whether needs and wishes are taken into account when combining work and private life



Source: GGWM

Workers in transport and logistics are more likely than average to find that needs and wishes are not taken into account, or only to a limited extent, when combining work and private life. The employability check from STL (labour market monitor 2018) indicates that 4% of the participants experience poor work-life balance, 27% are neutral on this point and 69% experience good work-life balance.

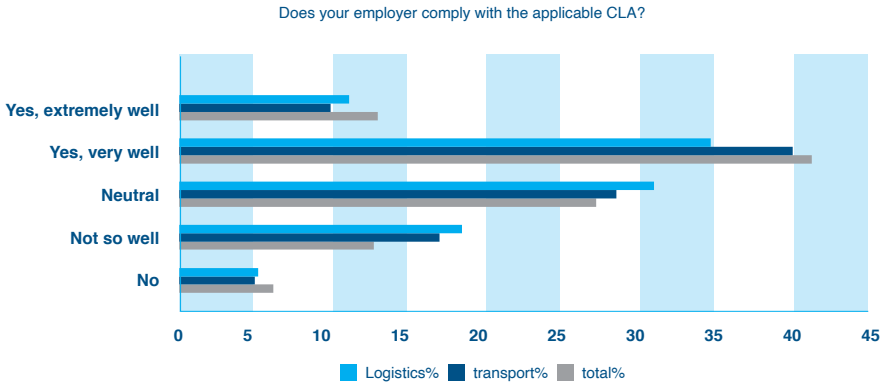
figure 54 Answer as to whether knowledge and skills can be further developed through work



Source: GGWM.

Workers in transport and logistics - more so than workers in general - rate their opportunities to develop at their employer as poor. Fewer than average workers also rate the opportunities as good. This is also evident from the employee survey and the STL employability check[82].

figure 55 Answer as to whether the employer complies with the applicable CLA



Source: GGWM.

82 STL, 2018, Labour Market Report 2018.

In transport and logistics, a larger percentage responds that the employer does not comply with the CLA as well as it should.

Conclusion: The results of the GGWM indicate that workers in transport are on average satisfied with their income, workers in logistics are more often neutral about their income, but are on average less positive about compliance, work-life balance and development opportunities.

Image of the sector: professional prestige index

The image of truck drivers is measured in the professional prestige index[83]. It shows that, in absolute terms, the image of the profession of truck driver has not decreased since the 1980s, but also that the professional prestige of other professions has increased. The relative position on the index has fallen: there are more professions with higher appeal than that of truck driver. The attractiveness of the profession of truck driver is diminishing in this sense, which makes it more difficult to find suitable personnel.

Indirectly, more can be said about it if we ask the workers in the sector about it. The following issues play a role.

- The standing of the sector is changing due to the deployment of (among others) Poles, predictions about self-driving vehicles and robotisation in the future (TON Panel);
- Main points in terms of image: responsible, varied, meaningful profession, but also demanding, not very well paid and difficult to maintain a good work-life balance (interviews with executives, companies);
- The drivers mainly see the lack of understanding and lack of respect of other road users, customers and other passers-by (no space on the road, complaints during unloading, etc.) (interviews with executives and companies);
- Through the Sector Institute, the main focus is on strengthening the profession and thus making it attractive, not so much on the image of the sector or the professions within it (STL Annual Report 2017);

Recruitment experiences

Employers who have a good reputation experience little or no difficulty in recruiting new employees. Interviews at companies show that this good reputation is built on factors such as: work-life balance, better pay, manners, nice work and variation in work. As far as the work-life balance is concerned, this usually concerns the number of days worked (40 hours in 4 days, for example), which is usually 4 days.

83 ROA, 2017, Status and image of the teacher in the 21st century.

The inflow is a greater challenge for larger companies, where the numbers of employees to be recruited are higher. It is noticeable here that the quality of lateral inflow is declining. The interviewed companies that use STL for recruiting lateral entrants are satisfied with the cooperation with STL, but less satisfied with the current quality of the candidates coming to lateral entry events. The format of the events is based on large numbers of interested people, who are selected as quickly as possible for possible suitability, while fewer people are now attending. Recruitment among different target groups than before is not yet done on any scale in the sector. Often the HR department is working on this, but the management does not see much point in it. Interviews with mainly larger companies raised this issue. The Sector Institute indicates that it is now looking into the target group of women.

6.7 RETAINING PEOPLE IN GENERAL

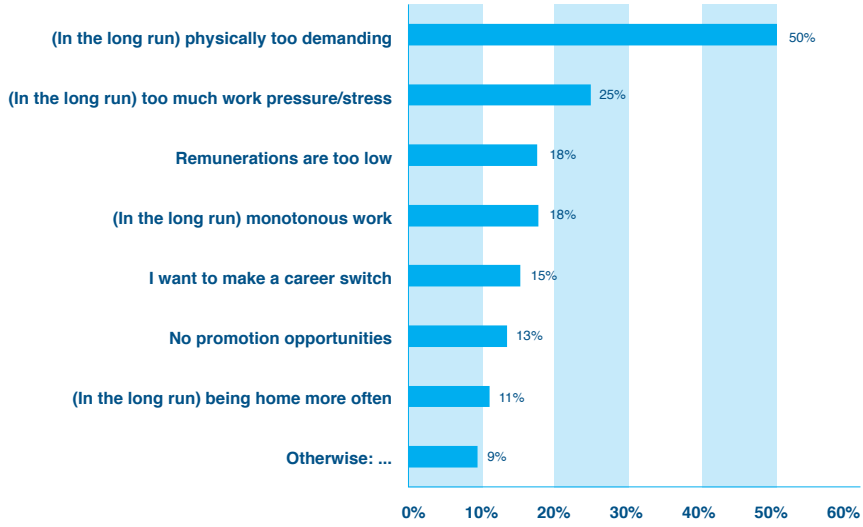
With the growing shortage on the labour market, it is important for companies in the sector to retain employees at the companies and in the sector. The interviews show that work-life balance is becoming increasingly important. Employees want the possibility of having more input in work times, being able to work four days (or fewer) and being home at night. Companies with a lot of personal attention have less staff turnover. For example, the relatively new position of driver coach/coordinator meets the need to reduce the increasing pressure exerted on the driver from all sides. The experiences of the employees and companies interviewed who use driver coaches/coordinators are positive. Another example of paying attention to employees is discussing unpleasant experiences (from being sworn at and near-physical confrontations during unloading to annoying posts on Facebook) relating to work and how to deal with them. Attention to what employees would like to learn is a way of retaining people, and the training offerings within the framework of Code 95 could be more in line with this. Especially in smaller companies with diverse activities, it appears that finding work that suits them is motivating for employees and important for their sustainable employability. In addition, for drivers it is still appealing to have their 'own' truck, or share it with a particular colleague. Interviews show that companies with more specialist work find it easier to recruit people. Employees have more choice due to the shortage on the labour market. It is easier to find personnel for specialist work that is better paid.

What are the reasons why employees leave? The exit survey indicates that 65% of participants in the survey left the sector voluntarily. The aspects of the job that people are least satisfied with are:

- the working hours
- the length of working days (drivers)
- allowances and working hours (logistics staff and planners)
- allowances and salary (other employees).

Most participants are satisfied with the length of the working week if it is between 21-30 hours and 31 to 40 hours. An average of two-thirds of the participants in the survey who did not start working elsewhere in transport and logistics after their departure do not want to return to the sector. Those who left the sector were experiencing less stress in their new job than when they were still working in the sector. In the employee survey 2019, similar matters were mentioned by workers when they said they were unable or unwilling to continue working in the sector until retirement. This included things like the work being demanding and creating stress.

figure 56 Reasons why employees are unable or unwilling to continuing performing the work until retirement



Source: STL, 2019, Employee Survey 2019

Sustainable employability

Retaining people in companies and the sector presupposes that workers in the sector can remain sustainably employable. Sustainable employability consists of various components: on the one hand on the side of the employee (health & vitality, competencies & professionalism and motivation & job satisfaction) and on the other hand on the side of the companies: job content, labour conditions, working conditions and labour relations. All of the above sources provide the elements classified below in the sustainable employability of the employee and sustainable employability in the companies.

Sustainable employability of employees

- Sustainable employability means, among other things, that employees are healthy and vital, competent and skilled throughout their careers (during all phases of life) and can continue to enjoy working. Sustainable employability has a number of main facets:
- **Health and vitality:**

  The Employability Check shows that 60% of workers rate their health as good and 30% rate their health as very good or excellent. This is comparable to the Dutch working population. The analysis by TON Panels and interviews with executives show:

  - Employees rate their health as 7 on average. In addition, 41% rate their health as 8 or higher, 13% of employees rate their own health as insufficient. 80% of employees consider their own health more important than work, but: 47% regularly works more than is good for their health and 54% finds it difficult to combine work with a healthy lifestyle.;
  - In the labour market report, over 40% sometimes deals with work-related absence: accidents during work (24%) and physical work (22%) are the main causes; causes mentioned in the labour market report include work pressure/ stress (32%) and overly strenuous physical work (27%);
  - More than two-thirds are worried about whether he/she can continue working until retirement. Concerns about physical and mental strain are more or less equal;
  - Employer-provided facilities in relation to health include a health check for 25% of the employees surveyed (10% does not avail of this, however) and 16% of the employees have sports facilities at work, 3% actually use them;
  - Not many opportunities are offered to keep employees healthy and facilities offered are not utilised by employees on a large scale;
  - The greatest risks to health are:
    - Physically: obesity is an important issue. Nutrition and predominantly sedentary activities are the 'knobs' that can be adjusted; Drivers seem to be more

aware of the importance of a healthy diet. The 'meatball sandwich' really seems to be on the decline;
  - Mentally: delays and aggression on the roads are the most frequently mentioned. Work pressure is a challenge on the rise, especially in parcel services and pallet transport;
  - Irregular shifts and insufficient opportunities for recovery.
- **Competencies and professionalism:**
  Drivers, in particular, already experience considerable training pressure due to the compulsory refresher training and Code 95. Employees do not always recognise the importance of the proposed Code 95 training. They would also like more choice and variety in training, including non-compulsory training in the context of career and professional development. And possibly see subjects such as dealing with aggression, reducing work pressure, ergonomics (chair and mirror adjustment) added;
- **Motivation and job satisfaction:**
  This seems to be decreasing mainly because of the outside world (behaviour of motorists on the road, aggression, treatment by customers).

Sustainable employability at the companies

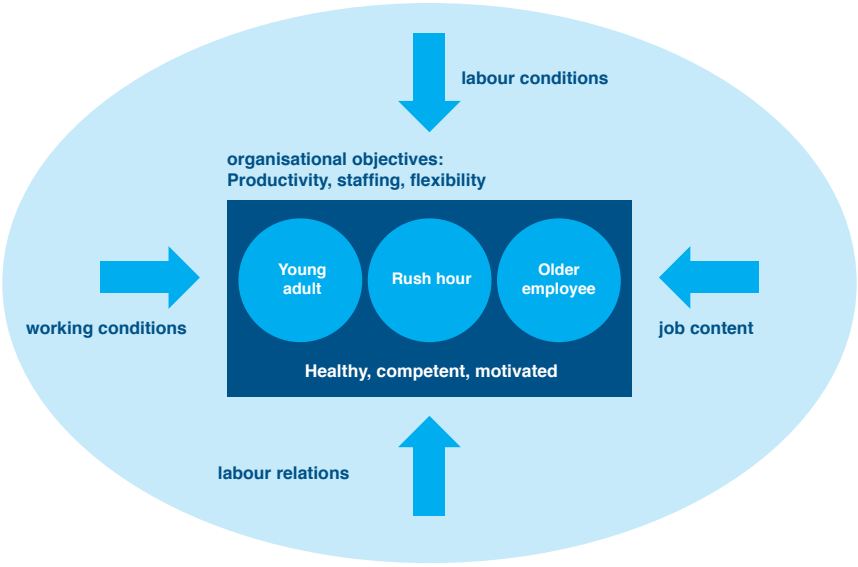
The Sector Institute for Transport and Logistics (STL) plays a role in sustainable employability. The annual report for 2017 states: 'The sense of urgency among employers and employees to invest in employability is growing. Employees still do not always show the corresponding behaviour'. And: 'Employers are still to a limited extent accustomed to developing a vision and strategy for employability and taking measures based on that. There is also often a lack of clear insight into the long-term (financial) consequences of reduced employability and long-term absence'. In the labour market report 2018 we see that 3% of companies consider boosting employability to be an important topic, while 21% consider retaining personnel to be an important topic (see 6.3 for the entire graph).

There are four aspects that have an impact on sustainable employability (working healthily, competently and with motivation) at the companies. They are:

- **Job content:** the type of tasks that employees have to perform, the opportunities that the work offers to learn, the latitude they are given to decide their own working methods or to make more essential decisions about the work;
- **Working conditions:** environmental factors during work, the physical strain involved in carrying out the work, the degree of safety and protection against accidents;

- **Working conditions:** agreed arrangements under which work is to be performed. This not only involves the remuneration in exchange for work, but also the working hours, the form of contract, training or promotion opportunities;
- **Labour relations:** social climate in the company, the opportunities for input and participation, the topics covered in that respect and the way in which these relationships take shape.

figure 57 Schematic representation of organisational objectives in combination with working conditions, job content, employment terms and labour relations.



Source: Panteia and Basis & Beleid

From interviews at companies with executives and discussions at STL, the following emerged:

Job content:

- Work is changing: driver work is also becoming more complex, there are more laws and regulations, and drivers have more responsibility. See also the study on the review of professional competency profiles[84];
- The vision of the future is that the work will change dramatically: for planners - more business intelligence, for drivers - platooning and self-driving vehicles, for the warehouse - far-reaching automation, etc. This is not really top of mind yet with employees and organisations;
- According to the Simply Good Work Meter, there are fewer opportunities for learning than in other sectors and STL's employability check gives similar results;
- The labour market report 2018 (STL) shows that 32% of the employees in the professional goods transport sector believe that there are sufficient opportunities for advancement.

Working conditions:

- Physically demanding conditions, especially in warehouses and for drivers: roller containers, truck tarps, lifting, reaching, climbing (cabin);
- Psychologically demanding conditions: work pressure is increasing, especially among planners (increasing complexity to complete planning) and drivers (traffic tailbacks, less respect among other road users and customers);
- In the exit survey we saw that people had experienced higher stress in their transport and logistics job than in their current job. The difference was greatest among the planners;
- In the labour market report, we see that 'lifting, pushing, pulling or carrying heavy loads' is identified by workers as by far the most important occupational risk, followed by high work pressure.

84 Social Economic Research Rotterdam, 2018, Research for revision of professional competency profiles for transport and logistics: For the professions Driver, Planner and Logistics Employee.

Labour relations

- An increase in the number of flex workers and foreign professionals sometimes leads to a lack of understanding and (therefore) less respectful manners;
- The planner is traditionally the manager of the driver: the balance between care and control is sometimes tense[85];
- Job of driver coordinator or driver coach: care function for driver, becomes manager; is positively valued in all cases;
- Companies that pay more attention to the human dimension seem to have fewer problems recruiting and retaining employees;
- Distance between the shop floor and the management causes decreasing employee involvement.

Working conditions

- Attention to work-life balance is important for older people: more recovery time helps to keep up the work;
- From the Simply Good Work Meter we see that the transport and logistics sector scores lower than average on taking the private situation into account;
- Part-time work for younger drivers (to allow for family care tasks) makes the profession more appealing;
- Salaries are lower than in competing sectors (AWVN).

85 Social Economic Research Rotterdam, 2018, Research for revision of professional competency profiles for transport and logistics: For the professions Driver, Planner and Logistics Employee.

7 Trends and developments

This chapter presents the main trends and developments, sometimes in the form of projections. The trends and developments are categorised in accordance with the STEEP classification: Social, Technological, Economical, Environmental and Political. However, the order is different: economic trends are discussed first of all, as other categories depend on them.

7.1 ECONOMIC TRENDS

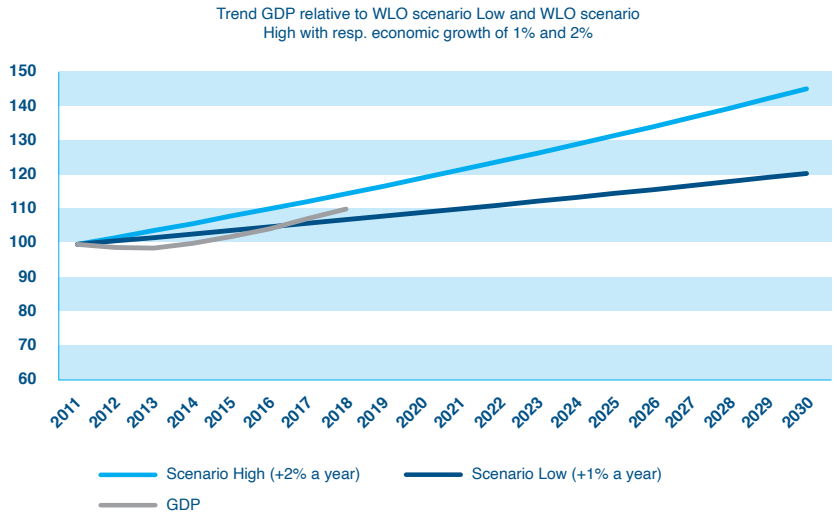
Macro-economic development and the demand for transport

Macro-economic development is the most determinative trend up to 2025 – **the growth of the GDP**. Given the uncertainties surrounding a large number of issues that will have a significant effect on this (Brexit, trade wars, policy changes, etc.), economic development can only be predicted along with a proviso. It is clear that recent years have seen prosperous development, but after the growth percentages of 2.9% in 2017 and 2.6% in 2018, we have already seen the peak of the growth. **The rate of growth will slow down in the years ahead**.

Forecasts about the macro-economy are made in the Future Exploration of Welfare, Prosperity and the Human Environment (WLO scenarios)[86] by the Netherlands Bureau for Economic Policy Analysis (CPB) and the Netherlands Environmental Assessment Agency (PBL). This document, published in 2015, contains projections for (the periods up to) 2030 and 2050 and forms the basis for the policy decisions of governments in terms of the physical environment. In this document, a distinction is made between a 'high scenario' (significant economic and demographic growth) and a 'low scenario' (moderate economic and demographic growth). The WLO scenarios assume a rate of growth of the economy of 2% a year (high WLO scenario) or 1% (low WLO scenario). In figure 58, these forecasts are compared against the growth in value of the Gross Domestic Product since 2011, the base year in the WLO scenarios. In 2017, the actual economic development is again between the high and low WLO scenarios, after having been under the low WLO scenario until 2016.

86 CPB and PBL, 2015, Future Exploration of Welfare, Prosperity and the Human Environment: Nederland in 2030 en 2050: Twee referentiescenario's (The Netherlands in 2030 and 2050: Two baseline scenarios)

figure 58 Trend of GDP relative to WLO scenarios



Source: CPB, PBL[87] and CBS, processing Panteia and Basis & Beleid

Based on the macro-economic projections and taking account of changes in the spending pattern and efficiency improvements in transport, the CPB and the PBL have forecast the demand for transport trend, The growth in weight transported by road is slower than that of the domestic product, In the high WLO scenario, the tonnage transported by road grows by 1,1% annually, whilst in the low WLO scenario, the tonnage transported by road grows by 0,2% annually, Table 18 shows the WLO projections for the growth in transport,

table 18 Volume of road transport trend according to the WLO scenarios

Trend in cargo transport	High WLO scenario			Low WLO scenario	
	2011	2030	2050	2030	2050
Total tonnage transported	1,075	1,305	1,637	1,134	1,226
Tonnage transported by road	697	855	1,099	728	792
Index (2011 = 100)	100	123	158	104	114

Source: CPB and PBL[88].

87 CPB and PBL, 2015, Future Exploration of Welfare, Prosperity and the Human Environment: Nederland in 2030 en 2050: Twee referentiescenario's (The Netherlands in 2030 and 2050: Two baseline scenarios).
88 As above.

Annual growth volumes in road transport are expected to be 0.9% in the high WLO scenario and 0.2% in the low WLO scenario during the period up to 2030. That projection has been compared with the actual volume in transport trend for the years 2011 (base year), 2018 and 2025. This results in the trend in key figures of the volume of road transport shown in table 19.

table 19 Key figures volume in road transport trend over time up to 2025

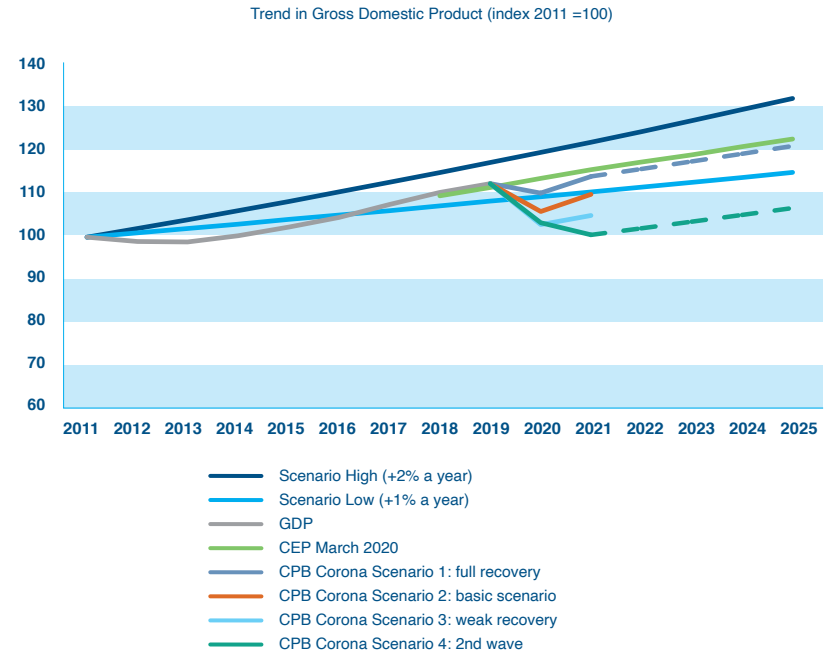
	2011 (index)	2011 (mln tonnes)	2018 (index)	2018 (mln tonnes)	2025 (index)	2025 (mln tonnes)
High	100	705	108	751	116	810
Low	100	705	102	708	103	720
Actual	100	705[89]	109	770		

Source: Panteia and Basis & Beleid based on CBS, CPB and PBL[90]

Transport and logistics are very **sensitive to the economic climate**; therefore the possibility that, in 2025, the reality will differ significantly from the above projection cannot be ruled out. In the event of a(n) (unexpected) recession, the demand for transport and the transported volume will, for example, be considerably lower. But sensitivity to the economic climate is a two-way process: with an above-average economic recovery, the demand for transport will be higher than predicted. This was also the case in 2017-2018: as shown in table 19, the actual volume in 2018 was higher even than the prediction in the high WLO scenario. WLO scenarios do not take into account fluctuations in the economic climate, only structural growth.
In the Central Economic Plan (CEP), the Netherlands Bureau for Economic Policy Analysis (CPB) makes medium-term forecasts. The CEP of March 2020 assumed a growth of 1.5% of the GDP for the years 2022-2025, lower than in the 2018-2021 period (1.8%), but still growth.[91] But in that projection the CPB includes a proviso in relation to the unpredictability at that time of the impact of coronavirus.
In mid-2020, that uncertainty is still present, but the effect on the gross domestic product is, in any event, significant in 2020. In June 2020, the CPB published four scenarios concerning the trend of the gross domestic product (see figure 59), where even the most optimistic scenario (CPB 1) doesn't come close to the estimate in the CEP until the end of 2021.

89 Source: Statistics Netherlands; this figure differs slightly from the figure used by CPB and PBL in the WLO scenarios.
90 CPB and PBL, 2015, Future Exploration of Welfare, Prosperity and the Human Environment: Nederland in 2030 en 2050: Twee referentiescenario's (The Netherlands in 2030 and 2050: Two baseline scenarios).
91 CPB Policy Brief Central Economic Plan 2020, page 14.

figure 59 Trend in Gross Domestic Product



Source: Panteia and Basis & Beleid based on CBS, CPB and PBL

In the Central Economic Plan (CEP) published in March 2020 it was anticipated that the growth of the domestic product would be 1.5% a year until 2025. But the corona crisis undermined all expectations in the short term. Following the outbreak of the corona crisis, the CPB calculated a number of scenarios for the growth in gross domestic product up to 2022.

table 20 Key figures trend in volume of road transport over time to 2025

CPB scenarios growth in GDP	2020	2021
Scenario 1: full recovery	-1.2%	+3.5%
Scenario 2: basic scenario	-5.0%	+3.8%
Scenario 3: weak recovery	-7.7%	+2.0%
Scenario 4: 2nd wave	-7.3%	-2.7%

Source: Panteia and Basis & Beleid based on CBS, CPB and PBL[92]

92 CPB and PBL, 2015, Future Exploration of Welfare, Prosperity and the Human Environment: Nederland in 2030 en 2050: Twee referentiescenario's (The Netherlands in 2030 and 2050: Two baseline scenarios).

In figuur 59 zijn al die scenario's afgebeeld. Met een stippellijn is voor het meest gunstige en meest ongunstige scenario van het CPB (1 en 4) aangegeven waar het BBP op uit zou komen als vanaf 2022 de groei uit het CEP (1,5% per jaar) weer werkelijkheid zou worden.

Economic trends in road transport and logistics

In recent years, the percentage of international transport under the Dutch flag within the EU has already declined sharply and it is anticipated that this will decline further in the run-up to 2025, as the labour cost discrepancies between the Netherlands and the East European countries remain. In particular, multi-day transport (international transport over longer distances) will decline further. On the other hand, **there will be an increase in one-day transport over a distance of less than 300 km**, both in relative and in absolute terms.

In terms of domestic transport, **large companies** will continue to expand through mergers and acquisitions, in order to integrate networks and achieve sufficient economies of scale. Flexibility in the sector continues to be provided by small companies working as subcontractors, or as charters for the larger companies. The nature of the sector, with a large number of medium and small businesses, has remained unchanged for years, but employment will mainly continue to rise in large companies.

As a result of economic growth, **activity will increase**. A **significant growth** is expected in the number of square metres of **distribution centres**: by 2025 the number of logistics units will have increased by approximately 15% relative to 2017. B2B transport will benefit less from this than **B2C transport**. As a result, transport by delivery van will continue to rise: growth of 10% per year is expected. In addition, the further focus on limiting empty kilometres and increasing the load factor, from an efficiency and sustainability point of view, inhibits a growth in the number of truck journeys.

Given the limited share of 1% of foreign registration plates in the domestic transport sector and the strict cabotage rules, it is anticipated that the transport market will not be threatened by this, provided that the cabotage rules are not relaxed. It is not inconceivable that **new entrants from outside the sector will enter and threaten the existing transport market**. This prediction is in line with the developments in other sectors, where companies from outside the sector change the market, such as thuisbezorgd.nl in the meal delivery sector and Uber in the taxi market. In Amsterdam, Uber quickly attracted a large share of

consumer transport (street taxi), at the expense of many established players in this market. In 2019 Uber also announced the introduction of Uber Freight in the Netherlands. It is anticipated that the power within the chain will lie with these new, large companies and the transport operator will have to adapt accordingly. The impact on logistics service providers will be considerably greater, because different activities will be taken over by these types of players.

With damages of approximately €1.3 billion caused by traffic jams and delays, **congestion** is already a huge **challenge** and the Netherlands Institute for Transport Policy Analysis (KiM) anticipates that, in five years' time, the **travel time** of road users will increase by an **average of 35%**. In the short term, no infrastructure projects will take place that significantly improve road capacity. In fact, due to the level of maintenance of infrastructure projects, such as bridges, capacity will temporarily decrease due to maintenance work. This is a huge challenge, particularly in the Randstad conurbation. Not only because congestion is already high in this highly urbanised area, but also because municipalities here are designating new construction sites in this area at a rapid pace, in order to meet the growing housing shortage. The impending truck levy, which will take effect from 2023 at the earliest, will do little to reduce the congestion, as this pricing measure does not apply to other road traffic. Partly on account of this measure, but also because consumers are increasingly less prepared to pay for transport, the already **significant pressure on transport costs** will only increase over the next few years.

Changing needs of the consumer

In the professional goods transport sector, the forwarder determines transport demand. But the amount of transport needed (quantitative: volume) and how this should be achieved (qualitative: method of transport), is in many cases ultimately determined by the private or commercial end user. The main trends for the four largest shipping sectors are listed below. These are then translated into the quantitative and qualitative implications of the trends for the Transport and logistics sector. The shipping sectors are: retail, fresh produce and food, construction and industry.

In recent years, we have seen a number of **customer needs becoming more prominent and we anticipate that these will increase in importance**. These customer needs can be summarised as follows:

- **Convenience.** People are increasingly opting for home delivery, instead of visiting a store, and they expect to be able to return goods free of charge;

- **Level of service.** The consumer does not want to have to adapt to the services – that should be the other way around. People want freedom of choice and personal and, as far as possible, personalised service;
- **Flexibility.** Consumers want to be able to make last-minute decisions;
- **Transparency.** There is a growing need to be passively and actively informed about the status of orders. Track-and-trace is therefore also commonplace;
- **Image.** The Internet allows every consumer to research the goods and services he or she purchases - and the company behind those services. And consumers do actually do this. Profiling the company is therefore becoming ever more important;
- **All-in-one.** Especially in the commercial market, customers are looking for service providers who offer a total package of solutions.

Developments in retail

Total retail sales will increase only slightly up to 2025. Conversely, e-commerce sales will double in the run-up to 2025 compared to 2018. A doubling in e-commerce volume means an increase of approximately 15,000 delivery staff (largely delivery vans), possibly even more if jobs are filled by part-time staff. In recent years, e-commerce volumes and sales grew by 20-30% a year. The online market share in the non-food sector will rise from 25% in 2018, to 35% in 2025[93]. It is expected that approximately 40% of non-food online sales will be sold through platforms such as Bol.com, Wehkamp, Amazon and Alibaba by 2025.

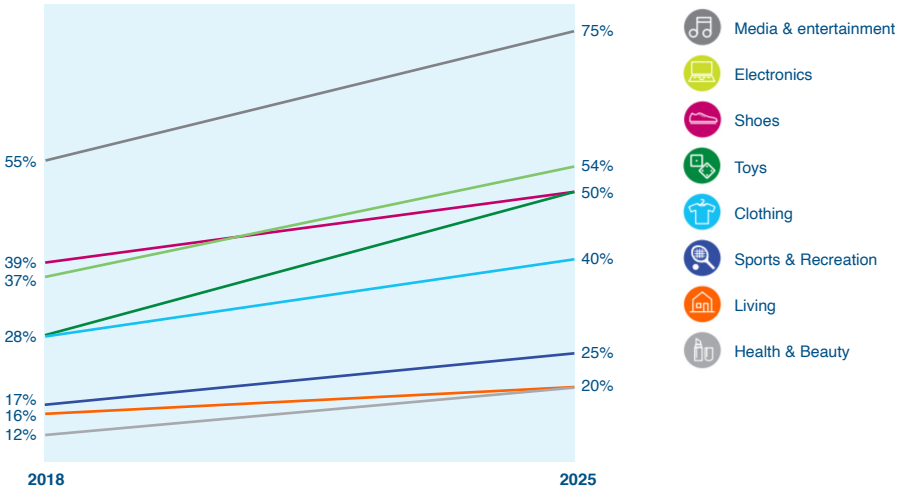
This market shift, in combination with limited total revenue growth, means that by 2025, physical stores will increasingly have a different role. These will focus more on luxury and experience than on bulk sales. The number of physical stores will also decrease. The reason for this is that consumers also have the option to shop online, therefore a visit to a store must also offer additional added value. An important observation is that there are significant differences for each product group. The diagram below provides an overview of this:

93 ING Economic Bureau, 2019, Nieuwe strijd staat voor de deur in online retail (Online retail faces a new fight).

figure 60 Market share in total turnover of e-commerce per product group

The online share in the non-food sector in 2025 varies from 20% in Living, to 75% in Media & Entertainment

The market share in total turnover of the online channel per product group



Source: ING Economic Bureau, 2019, Nieuwe strijd staat voor de deur in online retail (Online retail faces a new fight) based on Thuiswinkel.org

The further growth in e-commerce has profound consequences for transport: **the volumes in retail distribution by truck will fall**. In contrast, volumes in **last-mile using delivery vans will see excessive growth**. Forwarders' needs will also change in logistics, because e-commerce requires considerably more warehousing capacity than is required for (the same volume of) retail distribution. The demand for e-fulfilment capacity will therefore increase.

Trends in fresh produce and food

Over the next few years **there will be a slight increase in demand for fresh produce**, mainly due to exports[94]. The increase in the consumption of fresh produce in the Netherlands is virtually on par with the small growth in population anticipated over the next few years. Grower associations are increasingly supplying the retail sector directly. As a result of this, t**he current wholesale trade is changing** into a logistics service provider, or a buyer of products from abroad.

94 Rabobank, 2017, Groothandels in AGF (Fresh Produce Wholesalers).

Wholesalers with limited added value are at risk of disappearing from the chain. The purchasing power of supermarkets remains high.

The food sector is generally performing reasonably well, as this sector is relatively resistant to a downturn in the economy. This sector must, however, adapt to the changing consumer needs. For example, consumers increasingly want to know more about the origin and quality of food products and are imposing more and more demands. For example, Fairtrade, organic or vegan. In the (non-food) retail sector too, the need for convenience is rising sharply. Consumers are increasingly eating outside of the home, both in traditional catering establishments and through 'on-the-go consumption'. Catering establishments, restaurants, hotels and 'on the move' sales outlets account for around 35% of total expenditure, whilst the food retail percentage is 65%. More than 50% of all expenditure on food takes place in supermarkets. The food retail sector is therefore dominated by the supermarket, **but a shift to online sales and on-the-go consumption gets the food chain moving**. The development of the online segment in the food market is still uncertain. It is anticipated that the percentage of online sales will grow substantially. The percentage of online food sales is expected to rise from 4% in 2017 to 10% by 2025[95].

As is the case with non-food stores, the number of supermarkets will decrease steadily in the run-up to 2025. According to some projections, the number of supermarkets could fall by a third![96] In urban areas, where consumers have significant freedom of choice, supermarkets will reinvent themselves to still attract customers. To this end, they will offer 'an experience' and will also take on the role of a catering establishment. In rural municipalities, the supermarket is expected to retain its current function and functionality.

In terms of transport and logistics, in 2025 supermarkets will continue to be the main forwarders. It is anticipated that the fresh produce percentage will grow. But there will be greater **growth in the home delivery segment**, both of meals and grocery shopping, as intermediates (e.g. meal packages). The results of home delivery companies are currently still in the red; instead of focusing on results, they focus on increasing market share, in part because their main source of income is from the data that they collect. This is fine-mesh distribution using delivery vans. The number of convenience stores will also increase and trucks

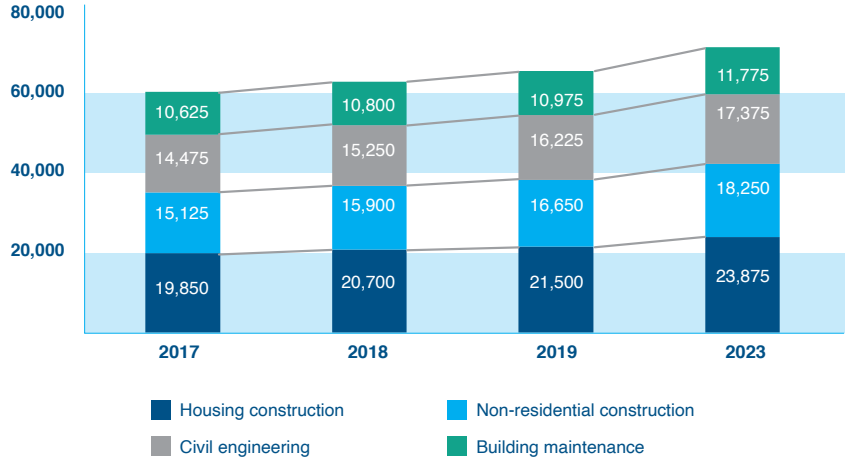
95 ING Economic Bureau, 2019, Nieuwe strijd staat voor de deur in online retail (Online retail faces a new fight).
96 FoodService Instituut Nederland, 2018, Supermarkt wordt 'superant' (Supermarket becomes 'grocerant').

are generally not used to supply these stores. There are also new players in the food sector, which could eventually lead to other transport and logistics clients.

Trends in the construction sector

In 2019, total construction volume will have returned to the pre-economic crisis level. There has been strong growth in recent years, especially in non-residential construction. It is anticipated that growth will come to a standstill in 2020 and 2021. During the first months of 2019, the issue of permits for new residential construction fell significantly and this fall continued in the second half of the year as a result of the nitrogen crisis. Some of the infrastructure projects suffered delays caused by the issues with nitrogen and PFAS (per- and polyfluoroalkyl substances). It is expected that the measures taken by the cabinet to resolve the nitrogen and PFAS issues will have an effect as from 2022. According to the EIB (Economic Institute for Construction and Housing), further growth is anticipated during the period 2022-2024.

figure 61 Trend and projection of construction volume by sector



Source: Economic Institute for Construction and Housing (EIB), 2018, Forecasts construction volume and employment 2018

During the forthcoming years, **prefab** will increasingly be used in the construction sector. Urbanisation, in combination with the housing shortage, will change transport flows. Due to increasingly denser construction, the small construction sites in the inner cities, and congestion, it is becoming more and more challenging for all parties in the transport chain to get goods to construction sites on

time and in the correct quantities. **There will be an increase in storage on the outskirts of the city and just-in-time supply from those sites.**

It is anticipated that 3D printing will turn the construction sector on its head, but this is mainly in the long term. That is because, eventually, there will be a cost benefit, particularly with custom work and construction with rounded corners or walls. Predictive maintenance, which is made possible through the Internet of Things (IoT) and the 5G network, also has an impact on construction and transport. In predictive maintenance, parts are not replaced until measurements (provided by all sensors connected to the internet) show that this is really necessary.

Robots are hardly used in the construction sector, but in the future will produce, for example, simple construction parts, which contributes to the **modular construction** trend. Robots do function better in a factory environment as opposed to on a construction site, which means the transport of larger construction parts will take place more frequently. On the other hand, more modular construction leads to less construction waste, which adversely affects waste carriers.

Trends in the industry

After two strong years, the industry will continue to grow in 2019, but this is anticipated to be at a slower rate (2%)[97]. The two main industries - chemicals and metals - will grow by 1.5% and 2.0% respectively in 2019. Due to the slowdown in growth in the Eurozone and particularly Germany, there will be **slower growth in export orders.** The growth of domestic demand will also decrease somewhat. Growth is expected in the run-up to 2030, if the industry responds well to the major challenges of finding suitable personnel and to the energy transition.

Consumer demands are becoming more and more stringent. Consumers are increasingly unwilling to wait a long time for their orders, and they prefer to be able to change their orders right up to the last minute. To meet these demands chains have to be shorter. This is underpinned by digitisation in the form of the Internet of Things, combined with all-round machines. This gives 'hobbyists' the capabilities of high-tech industries. Over time, there will be stores in the city where consumers can print personalised products in no-time. The future of the industry is flexible and regional. This development is, of course, much more important in the manufacturing industry than in the metal or petrochemical industries. No customer will demand tonnes of steel within an hour.

97 ING Economic Bureau, 2018, Groei industrie zet gewoon door (Growth in industry continues as normal); ING Economic Bureau, 2019, Groei industrie zwakt af (Growth in industry slows down).

In all industries, **the number of product variations are increasing, whilst the average batch size is decreasing**. Not only companies in the industry, but also carriers must respond to these changes. Transport operators who know how to anticipate this development are making themselves more indispensable to their customers.

Waste transportation

Waste transportation is also gathering momentum. Due to the pressure on the environment, use is increasingly made of recycling and circularity. Waste is increasingly seen and used as a raw material, meaning a restructuring of waste transportation chains will be needed. In the past, a large portion of waste materials in the Netherlands (and other Western countries) were exported, mainly to China. These were then shipped as return cargo for container ships transporting consumer goods made in China to Rotterdam. In 2010, approximately half of all recyclable plastic waste was exported to China, but since 2017, China has a new environmental policy and waste imports are being phased out. In 2018, three quarters of exports of recyclable waste were destined for Europe. That year, the Netherlands processed 58% of waste itself. Now that the exceptionally cheap exports to China are coming to an end, Dutch waste processors have new opportunities. It is therefore anticipated that local (circular or otherwise) waste processing will become increasingly important up to and including 2025. Waste flows therefore continue to evolve, as these are determinative factors for the environment. Due to the increased supply, the Dutch waste materials industry will be able to develop at an accelerated pace into a high-quality high-tech sector.[98]

98 Statistics Netherlands; RTL Z, 29-01-2019, Chinese plasticban is goudmijn voor recyclers (Chinese plastic ban is a goldmine for recyclers).

7.2 SOCIAL TRENDS

Demographic changes and urbanisation

The population will increase in the short term, but its composition will change (see table 21).

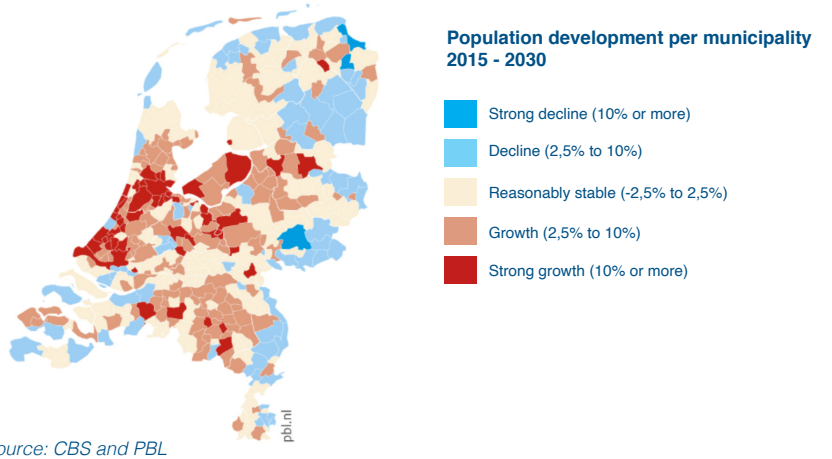
table 21 Population growth in the Netherlands (mln)

Year	Total	Adults (20-65 years)	Aged 65+	Aged 80+
2019	17.3	10.1 (58%)	3.3 (19%)	0.8 (5%)
2030	18	10 (55%)	4.2 (23%)	1.2 (7%)

Source: Statistics Netherlands (CBS)

Continuing ageing of the population will therefore put pressure on the labour market. It is also important that two thirds of the population growth will come from migration and one third from natural growth. In line with the previous period, the geographic distribution of the population of the Netherlands will change over time up to 2025. The population will increase most in the Randstad conurbation, both in the major cities (Amsterdam, Rotterdam, The Hague and Utrecht) and in the surrounding municipalities (e.g. Haarlemmermeer, Zandvoort and Bunnik). Major cities outside the Randstad conurbation also show considerable growth (e.g. Tilburg, Nijmegen and Zwolle). On the other hand, a decline in population will occur in approximately a third of rural municipalities (see figure 62).

figure 62 Population growth projection



Source: CBS and PBL

The **percentage of inner-city transport will therefore increase**, but in view of the increasing lack of space, this is a problematic possibility. Environmental zones will also increase the pressure on carriers.

In addition to the demographic structure, work patterns are also changing. **The number of single breadwinner families (single earner) has been decreasing for years.** In 2006 more than a quarter of families had just one breadwinner; in 2016 that was approximately 20%. Young couples in particular are often dual-earner families: in almost 90% of couples in which the main breadwinner is younger than 35 years of age, both work. In couples where the main breadwinner is older than 60 years, approximately 60% are dual-earner families. Single-earner families saw a decline in their income between 2011 and 2016 (-1% disposable income), whilst dual-earner families saw an improvement of approximately 5%. Two thirds of single earners work full-time. But in dual-earner families, less than 20% of couples both work full-time. This explains the **growing need for part-time jobs** – including for men and people without children. The woman is then increasingly earning more money on average. In 2006 the woman contributed on average approximately 33% of the total income. In 2016, that increased to 36%. The projection is that this trend will continue as, because of the ageing population, increasing numbers of employees are retiring[99].

Trends in the labour market

In 2019, the labour market is 'strained' in almost all sectors as a result of the boom in economy. All sectors therefore compete for new employees and entrants. There is predominantly a **considerable shortage of people with technical training** and that shortage will rise in the future. Not only because of the ageing society, but also because of the decline in popularity of technical professions. All sectors that draw on the pool of employees in senior secondary vocational education ('MBO') are facing shortages. **After 2020, the inflow from senior secondary vocational education (MBO) will decrease slightly** which will negatively affect the shortages. The inflow of people with a technical educational background, from Higher Professional Education (HBO) and academic university education (WO) was highly unsatisfactory back in 2019.

Shifts in employment relationships and CLAs

In all sectors in which new entrants (from outside the sector) and disruptors are active, employment relationships appear to change. In some cases, the CLA is even under pressure. New entrants to the logistics sector are currently still

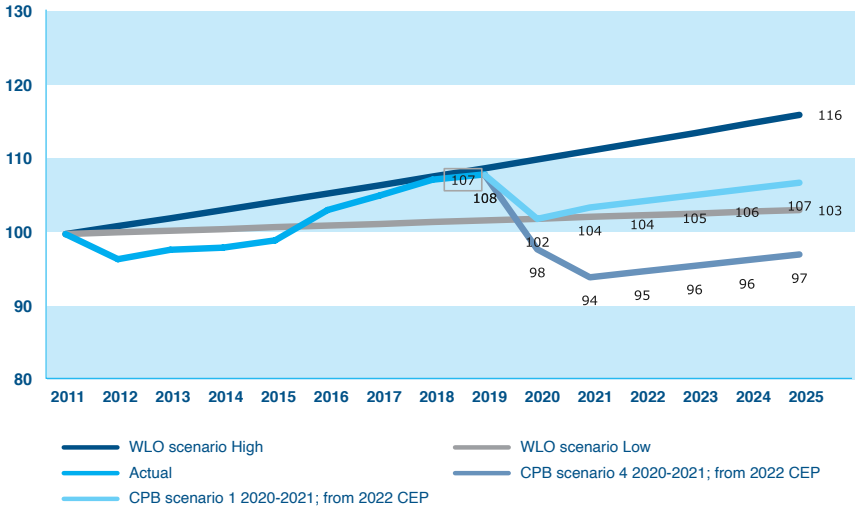
99 Statistics Netherlands (CBS).

predominantly active in fine-mesh distribution and home delivery; they use **other groups of (potential) employees**, who previously did not enter this labour market. For example, students and part-timers. According to these new entrants, this new type of employee has less of a need for a CLA; they are looking for flexibility and an employment contract that fits in with their lifestyle.

The demand for labour in the transport and logistics sector

Based on the demand for transport (volume) in the previous paragraph, a calculation has been made of the demand for labour. Figure 62 shows the trend in volume and employment up to 2025.

figure 63 Trend in volume in road transport, index: 2011 (697 mln tonnes =100)



Source: CPB, PBL[100] CBS and PFV processing Panteia and Basis & Beleid

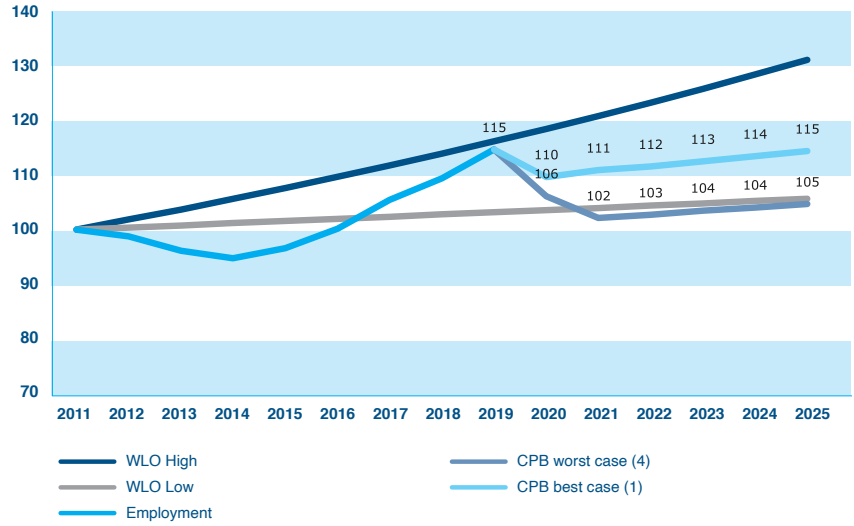
Figure 63 shows that the traffic volume of road traffic in 2019 (with an index of 108) is almost at the level of the high WLO scenario, whilst during the initial years after 2011, this traffic volume was below the low WLO scenario. In recent years there has been a significant increase in the transported volume. **The volume in 2019 is 8% more than in 2011**. Employment in the sector rose in that period by 15% and the number of truck drivers by 6%.

100 CPB and PBL, 2015, Future Exploration of Welfare, Prosperity and the Human Environment: The Netherlands in 2030 and 2050: Two baseline scenarios

Up to 2019, the number of employees (participants in the Pension Fund) rose faster than the traffic volume, but the number of truck drivers[101] a little slower than the volume. Delivery van drivers were not included in these numbers. With the decrease in international transport and the shift to B2C transport with delivery vans, the number of truck drivers isn't increasing as fast as the volume. This is expected to continue to be the case during the forthcoming years, by continuing these trends and improving the efficiency.

By extrapolating the growth in employment between 2011 and 2019, employee demand would increase by 11% between 2019 and 2025 (for truck drivers, by 4%). That demand for labour would be close to the demand that would result from the high WLO scenario. In the low WLO scenario, the number of people in the sector in 2025 would be approximately 2% higher than in 2019 and, the number of truck drivers, approximately 1%. Figure 64 shows the expansion needed in the sector relative to the 2018 level, third quarter.

figure 64 Trend in road transport employment (Index 2011 (134,930 employees) =100



Source: Panteia and Basis & Beleid based on PFV and the WLO scenarios

101 According to the drivers' filter PFV.

However, following the outbreak of the corona crisis, the question is whether the economy and transport will recover sufficiently by 2025 for there to be even be any growth in employment between 2019 and 2025. In all scenarios, the economy and, therefore the volume in transport, will go through a dip. The graph shows the effects of the best and worst case scenarios of the CPB for employment in the transport sector. Those calculations are based on research by Panteia on behalf of the Ministry of Infrastructure and Water Management.

The forecasts of the CPB and Panteia do not go past 2022. In figure 64, CPB's scenarios in relation to the consequences of corona for the subsequent years are supplemented by CEP's forecast of March 2020 for the gross domestic product (1.5% per year), translated into transport volume and employment.

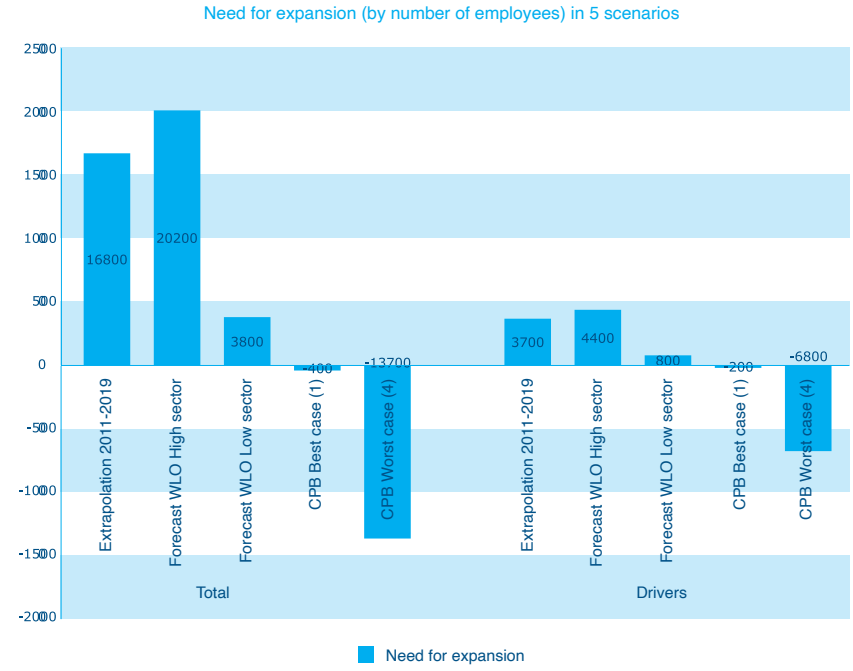
In 2020, the rising demand for labour over the past years will be abruptly interrupted by an economic crisis resulting from coronavirus. As shown in paragraph 7.1, in all scenarios the CPB expects a sharp fall in the domestic product in 2020 and 2021. As a result, the transport volume in road transport in 2020 will fall by 5.5% in the best case scenario and by 9.3% in the worst case scenario. This is expected to lead to a significant decrease in employment in the years 2020 and 2021. During the years of growth, employment grew faster than the road transport volume. Employment amongst drivers did not grow as fast as the road transport volume, due to the structural changes in the sector, from international to national and national to smaller scale transport (parcel transport).

The decrease in volume in 2020 and 2021 is not expected to translate to a proportional decrease in employment. To a degree, less work will translate into less overtime, the structural change to fine-mesh distribution transport will continue to intensify and companies will attempt to maintain capacity (which may or may not be helped by labour cost subsidies). In our projection we have therefore assumed a slight fall in employment (75% of the decline in volume as a result of the CPB's economic scenarios) in 2020 and 2021 and, in 2022, a delayed recovery because, in the first instance, existing capacity will once again be used. As from 2022, the increase in volume due to the economic growth expected in the CEP will translate one to one in growth in employment of both drivers and other personnel.

102 Verwachting goederenvervoervolume 2020-2021 met de mogelijke gevolgen van de coronacrisis, Panteia 2020
103 Panteia, Verwachting goederenvervoervolume 2020-2021 met de mogelijke gevolgen van de coronacrisis, 2020.

The corona crisis means it is unlikely that there will be a significant need for expansion up to 2025 and there is a real possibility that, by 2025, employment will not have returned to the level of 2020. Depending on which scenario materialises, employment will increase between 2020 and 2025, as shown in figure 65.

figure 65 Projections of the need for expansion to total employment, broken down into drivers



Source: Panteia and Basis & Beleid based on PFV and the WLO scenarios

The sector mustn't only meet the need for expansion, but it also needs inflow to compensate for the annual outflow. In absolute terms, this appears to be quite high in the sector. In relative terms, the outflow is at approximately the same level as the average in other sectors. The outflow has increased in recent years. As shown in table 22, during the period 2011 – 2018 an average of around 15,000 people left the sector.

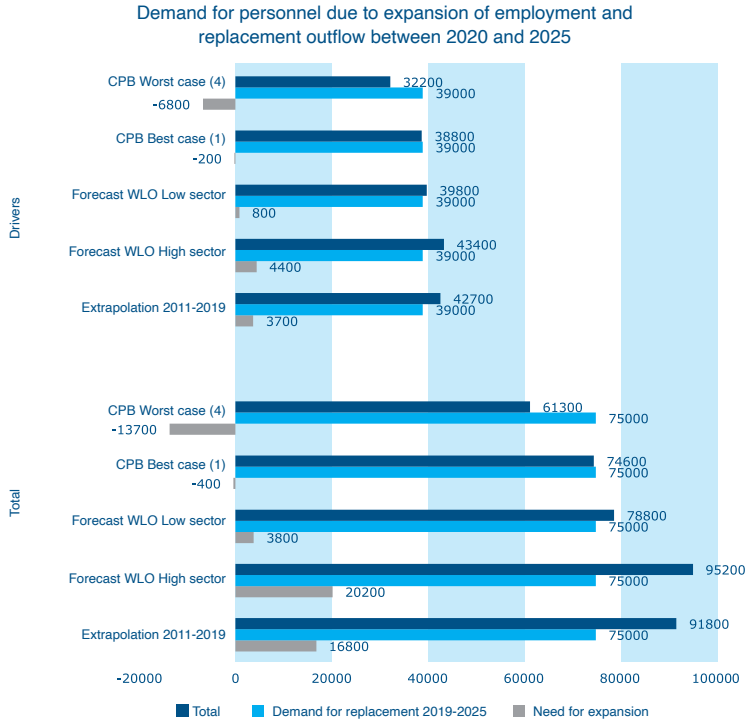
table 22 Outflow of employees from the transport sector during the period 2011 - 2018

	2011	2012	2013	2014	2015	2016	2017	2018
Outflow from the sector	14,388	16,654	15,946	14,312	13,502	15,069	16,350	15,174
Outflow of drivers	7,860	9,064	8,591	7,691	6,846	6,805	7,444	7,757

Source: PFV (Transport Sector Pension Fund).

The total outflow includes more than just outflow on account of retirement. In 2018, approximately 1,800 people aged 65 years and older left the sector, including 1,000 drivers. Due to ageing, those numbers will increase, but currently represent just 15% of the total outflow. In the years up to 2025, in addition to the need for expansion, the sector will therefore have to meet the **requirement to replace (on average) 15,000 employees (including 7,800 drivers)**. This leads to the need for personnel in the sector, as shown in figure 66.

figure 66 Projections of the total need for employment, broken down into drivers



Source: Panteia and Basis & Beleid based on PFV and WLO scenarios

Therefore, despite the corona crisis, up to 2025 many people will continue to be needed in the transport sector, predominantly because of the need to replace employees. In the past (between 2011 and 2018), the sector had to deal with a similar need to replace employees, but that resulted in a fundamental staff shortage within the sector from 2017 onwards.
In terms of other staff, there is mainly an increase in the demand for delivery van drivers. In the logistics sector, new technology is more likely to offer labour-saving solutions than in the road transport sector. In the short term, there will also be a strong focus on this by logistics service providers, because the staff shortage will have a very restrictive effect on warehousing activities. The people who are made redundant as a result of warehouse automation are potential entrants to the road transport sector through lateral inflow. However, as a significant portion of the work in the warehouses is carried out by temporary agency workers, mainly of Eastern European origin, these people are not automatically eligible.
In terms of numbers, many low-skilled employees are predominantly needed in transport and logistics to keep operations and production running and for expansion purposes. But as the sector can now also innovate, and wishes to innovate, in terms of data and technology, increased inflow of highly skilled personnel will also be required. Examples are schedulers at Higher Professional Education (HBO) and academic university education (WO) level, data specialists and robot programmers.

The corona crisis affects the need for people in two ways:
- There will be more (forced) outflow at companies severely affected by the corona crisis;
- The voluntary outflow of people to other sectors will decrease, because those sectors will also be affected by the crisis and, therefore, fewer opportunities will arise elsewhere.

On balance, the outflow is certainly expected to be higher in the years 2020 and 2021. In the TLN corona barometer, 15% of companies anticipate having to make employees redundant. At that time, the Emergency Bridging Measure to Preserve Employment 1 (NOW1) was still in force. Companies that wished to utilise the labour cost subsidy were fined if employees were made redundant during the Emergency Bridging Measure period (a fine of 50% of the costs of those redundant employees). At that point in time, 30% of road transport companies were utilising the Emergency Bridging Measure. During the 4-month NOW2 period, that fine was just 5% and, if an agreement has been reached with unions about the need for reorganisation, no fine was issued. At the same time, more than 40% of companies report that there is less work and about 10% report that there is no work for their employees.

7.3 TECHNOLOGICAL TRENDS

Up to 2025

The main technological trend that the business community is in the throes of is the development and purchase of IT and data technology. That also applies to the transport sector. The rationale here is **digitisation and automation** of documentation, business processes and communication. During the period up to and including 2017, a large number of transport companies invested heavily in IT and making connections, because of which **Internet of Things** applications became possible. For example, (GPS) data from on-board computers is sent automatically to Fleet Management Systems to enable vehicle tracking. These are mainly medium to large companies – a significant proportion of the smaller carriers are lagging behind. For example, approximately 34% of companies were using a TMS system in 2016, but in terms of large companies, that percentage was 93%. Larger companies have more resources to automate and their need for automation is greater (i.e. the work is more complex).

IT systems and, devices and assets connected to the IoT fulfil an important new role, in addition to their original purpose: they are a source of **Big Data**. In 2019, IT is not so much a competitive tool, but rather a prerequisite for operating in the transport sector. Instead, **Business Intelligence** is used to process data into income, strategic management information and process optimisation. This will be a very determinative factor in terms of competition. This is currently still happening on a limited scale, but as from approximately 2022, will be used by many parties. The gap will widen between companies that do and do not participate in the data revolution. Companies that have control of their process data have a stronger position in, for example, tariff negotiations.

Digitisation, automation and data-driven work mainly affect the work of office staff. Systems and scheduling systems are quickly increasing in complexity, and data analysis is playing an increasingly important role in both operational and strategic activities. As a result, the qualitative labour needs of transport companies shift from senior secondary vocational education (MBO) and Higher Professional Education (HBO) educated workers, to academic university education (WO) educated workers, such as IT, data and BI specialists. Automation will reduce the quantitative demand for lower-skilled labour.

Digitisation and data analysis enable **data platforms** to be set up. Forwarders and various large logistics service providers are currently already working on

this form of centralisation, where data is combined from different companies that, together, form the links in transport chains. Data platforms form the basis for achieving cross-company economies of scale (through control towers and matching platforms) and finding new income (as a data-provider to customers and third parties). Companies that currently already invest in data centralisation and analysis capacity have the potential to profile themselves as frontrunners in the sector. Companies that ignore these opportunities will find things increasingly difficult in the future.

Bundled data provides transparent centralised chain data, which can be shared with all chain partners through a **control tower**. Control towers will still be used to a limited extent in 2019, both within and external to the sector (by large forwarders). Several larger transport and logistics companies are expected to use a control tower by 2025, as a logical next step in their (current) data management policy. In addition, there will be parties outside of the sector (forwarders and tech companies) that will also have the role of a control tower.

The final and most radical step that can be taken based on data (sharing) is to set up **matching platforms**. Up to and including 2019, platform initiatives, which were established in collaboration with transport companies, achieved only limited success due to the lack of social acceptance. But it remains a sector where there is a conflict between supply and demand and where there are inefficiencies in the supply chain. As a result, the current transport sector is a good breeding ground for external disruptors, with sufficient scale to set up a platform unilaterally. An alternative state of affairs is that a platform initiative is nevertheless set up by the sector. It is anticipated that one of the foregoing will take place before 2025.

In the logistics sector **robotisation** is by far the most important development. The rapidly growing shortage of warehouse personnel, and corona have accelerated the development and implementation of warehouse robots. During the period up to 2025, warehousing will be considerably less labour intensive and actually more capital intensive. According to the World Economic Forum, by 2025 in the economy as a whole, 52% of the work will be done by robots (compared to 29% in 2018). According to the projection of Buck Consultants, during the period 2017-2032 in the Netherlands, approximately 35,000 of the approximately 85,000 jobs in distribution centres will disappear. Particularly in Noord Brabant, Zuid-Holland and Limburg, many jobs will be lost (10,700, 5,000 and 4,900 respectively).

Developments in **artificial intelligence and machine learning** will mainly provide an incentive for other technologies. For example, 'intelligent' and 'learning' warehouse robots can be used much more widely. Machine learning is also interesting in data processing, BI and scheduling. Scheduling systems are already on the market, where an AI module 'keeps an eye' on the schedules and learns from this. Over time, these AIs will be more capable of processing data and will be better than human employees at transport scheduling.

Post-2025

Other technological developments will only be available for use, or for use at a significant scale, in the longer term, after 2025. For the supply chain, **blockchain** may be an interesting technology, because blockchain may provide a potential solution for the lack of trust between carriers. At the present time, however, there are few specific and/or handy uses for blockchain in the transport sector. It is uncertain whether and when these solutions will be found, but this will probably only be in the long term. Even more drastic for the chain is the **Physical Internet (PI)**, an alternative to the supply chain. However, neither technology nor the sector will be ready for PI before 2030. **3D printing** has a special place here. That is because this technology only offers limited possibilities for transport and logistics companies. However, it is plausible that, in the long term, 3D printing may revolutionise the manufacturing industry. When the manufacturing industry becomes more efficient and more localised, this will lead to a decrease in the total end product to be transported, but this may benefit raw material transport.

The current trend of specialisation and platformisation of services will continue at a fast pace up to and including 2025. These are therefore companies that have expertise in a particular business activity, that expand their capacity to this end and can then offer this to third parties as a business service. This allows companies to respond to the growing need of customers for convenience. An illustration of this is **planning-as-a-service** (PaaS), which is already offered on the market by several parties. In PaaS, the customer's scheduling software is taken over and controlled by the PaaS provider, whilst the customer's personnel can continue to use self-service options.

The main changes post-2025 will take place in the actual vehicle and in respect of the driver. As from 2016, tests will be conducted with **platooning**, but there are still significant barriers to this, in the form of infrastructure, technology and social and legal acceptance. As from 2022-2023, these barriers will disappear, but considering the relatively marginal benefits offered by platooning, uptake will

be limited up to and including 2030. Several truck manufacturers have already discontinued their testing programmes. The next step is even more drastic: **autonomous and automated transport**. Autonomous vehicles have the potential to completely change transport, by initially modifying the role of labour and, at later a later stage, primarily reducing this role. However, it will be well beyond 2025 before technology, legislation, the transport sector and society are ready for driverless vehicles. Up to 2025, the systems required for autonomous driving will already contribute to increasing safety for drivers and the environment, for example, by alerting or stopping in the event of emergencies.

7.4 ENVIRONMENTAL TRENDS

CO_2 reduction up to and including 2025

As stated, in 2017 total CO_2 emissions amounted to 186 Mt[104]. That figure included road transport emissions at 6 Mton; 31% of the total. Within the high WLO scenario, the 2030 emissions are approximately 40% lower than in 1990 and, in the low WLO scenario, that figure is 30%[105]. In these projections, the total actual CO_2 emissions are therefore 102 Mt and approximately 119 Mt respectively. In the high WLO scenario, total road transport emissions in 2030 are approximately 28 Mt, and in the low WLO scenario, emissions are 26 Mton; **9% and 14% CO_2 reduction respectively** (relative to 2010, when the CO_2 emissions were 30 Mt).

Other emissions into the background

The focus has moved from air pollutants to CO_2. On the one hand, because global warming has become more acute, on the other hand because the other emissions have reduced significantly in the meantime (see table 23). The emissions from these substances will (have to) fall less sharply in the run-up to 2025 than CO_2emissions.

104 Actual emissions were 186 Mt; corrected emissions were 163 Mt (according to IPCC).

105 Total emissions are lower in the high scenario than in the low scenario, because CPB and PBL apply CO_2 prices per scenario. The behavioural change and the additional budget for sustainability are included in the projection. In the high scenario, the CO_2 prices are four times higher than in the low scenario.

table 23 Emissions of air-polluting gases from road transport

Substance (mln kg)	1990	2010	2018
PM_{10}	4	0,7	0,3
NO_x	78	50	24
SO_2	5	0.03	0.04

Source: Statistics Netherlands (CBS)

Governments are the driving force behind sustainability

At EU level, there are different CO2 reduction goals (see table 24).

table 24 EU goals with regard to CO2 emissions

Document	Year	CO2 reduction (relative to 1990)	Deadline
Climate and energy package (EU2020)	2009	Total: 20%	2020
Paris Agreement (EU contribution)	2015	Total: 40%	2030
	2011	Transport sector: 60%	2050

Source: EC

A very important measure for the transport sector is a proposal in the Clean Mobility Package: a system of stringent CO2 emission requirements for new heavy-duty vehicles. **By 2025, new vehicles must emit at least 15% less CO2 than in 2019 and, by 2030, at least 30% less.** This forces manufacturers to continue looking for cleaner technologies.

- At national level there are also ambitions (therefore no strict requirements!) specifically for the transport sector. These are formulated in the Energy Agreement (2013):
- Energy savings of 15 to 20 Petajoules/year by 2020.
- CO_2 reduction of 17% (relative to 1990) by 2030.
- CO_2 reduction of 60% (relative to) in 2060.

The current Energy Agreement ends in 2023. The Climate Agreement has been in place since 28 June 2019 and the cabinet has started to implement this agreement.

The division concerning the new Energy Agreement is an indicator of the **current division concerning sustainability**. In the current proposal, mainly the

consumer and households will bear the costs for the required investment. Dutch business has generally adopted a 'wait-and-see' attitude, and has looked to the government for guidance and/or subsidies. This must change in the future. Corporate Social Responsibility clauses aimed at improving sustainability will no longer be optional in the future, and will also be significantly more binding. The Climate Council and its chairperson Ed Nijpels are attempting to shape the Climate Agreement in such a way that there is no room for companies that ignore sustainability.

Alternative fuels

Alternative fuels is the most important technological field in terms of making road transport more sustainable. In road transport, alternative fuels include a combustion engine run on gas (bio-CNG, CNG or LNG) or biofuels and electric drive on battery or hydrogen. The technology still has limitations and the uptake has so far been very limited (see 3.3, p. 19). It is anticipated that, by 2025, approximately 3% of the new freight vehicles sold will be electrically driven[106].

To accelerate the uptake of alternative fuels, the EU has had all member states prepare policy frameworks for the installation of charging and refuelling infrastructure (Regulation 2014/94/EC). See table 25 for the Dutch policy.

table 25 Target for charging and refuelling infrastructure for alternative fuels in the Netherlands

Infrastructure	Current	Target	Aim	Deadline
Public charging points for electric vehicles	13.000	25.000	Country-wide charging infrastructure; focus on the Randstad conurbation and BrabantStad	End of 2020
LNG refuelling points for heavy-duty vehicles	19 refuelling points; country-wide	None needed; market uptake	Refuelling points accessible to the public, in any case along the TEN-T network	End of 2025
Public CNG refuelling points for motor vehicles	145 stations; country-wide	None needed; market	For urban, suburban and densely populated areas	End of 2020
Public hydrogen refuelling points	2 hydrogen stations	20 hydrogen stations	In 2020, a country-wide network with sufficient vehicles	End of 2025

Source: Rijksoverheid (Central Government), 2017, National Policy Framework Infrastructure for Alternative Fuels

106 ING Economic Bureau, Asset Vision Trucks: Afzet naar hoogste punt, elektrificatie komt eraan – maart 2018 (Asset Vision Trucks and Trailers: Sales to highest point, electrification is on its way – March 2018).

7.5 POLITICAL-LEGAL TRENDS

Regulations and enforcement

The Netherlands is lagging behind in the monitoring of transport legislation. The Netherlands started to enforce the ban on weekly rest periods in the cabs of vehicles later than all other member states and the Netherlands performs fewer checks than all other EU member states, with the exception of Greece. As a result, the risk of getting caught in the Netherlands is low. There are, however, no signs that the Ministry of Infrastructure and Water Management plans to deploy more staff and capacity for inspections. The Ministry of Social Affairs is, however, developing additional policy and is increasing its inspection activities. A major part of the expansion of inspection capacity will be in respect of companies handling hazardous substances, but the Transport and Logistics programme will also benefit from enforcement activities for safe and healthy working conditions in transport and doubling of the monitoring of honest market conduct. There will be an increase in the monitoring of the use of foreigners and bogus schemes in international transport and national parcel transport. But **the lack of clarity at EU level concerning matters such as bogus self-employment and the EU Posting of Workers Directive is still troubling the inspection authority**. The expansion in capacity of the Inspectorate of Social Affairs and Employment (ISZW) will lead to increased monitoring, but even then the range will remain limited.

Mobility Package

In terms of European legislation, the focus of the debate is the **Mobility Package**. The European Union's aim is to remove as many barriers to free trade as possible, but the social deficiencies that result from the social-economic inequalities between Eastern and Western Europe mean that considerable support exists for protective measures within the transport sector. The EU Transport Council (the ministers of transport or related ministries of each member state) reached an agreement on the measures in December 2018. However, eleven West-European countries, united in the Road Transport Alliance, have taken a stand against the original proposals for liberalisation of cabotage. The Netherlands isn't yet a member of the Road Transport Alliance. The outcome is uncertain as there are a comparably large number of countries in Eastern Europe that oppose liberalisation of transport. There, the transport sectors benefit from differences in labour costs with Western European countries. The Transport Council's proposals have already been blocked a number of times in European Parliament and in the short term, the debate appears to have reached an impasse.

Self-employment

Working with self-employed persons is especially common in the parcel transport sector. The issue with self-employed persons is not just a problem within this sector, the construction industry, for example, experiences the same issue. There are sometimes court rulings about improper constructions (bogus self-employment), but it remains unclear where the line is drawn between genuine self-employment and bogus self-employment. The Minister of Social Affairs and Employment wanted to resolve this issue by automatically categorising people who work for below a specific rate as an employee, but according to the Minister of Social Affairs and Employment, a minimum rate could not withstand the Brussels' test. This means that the situation will continue where, apart from in clear-cut cases, savings can be made by working with self-employed persons. Freelancers accept low rates of pay because they receive tax benefits, such as the self-employed person's allowance and because they forgo incapacity for work insurance and pension. The resistance in Brussels has meant that, to date, the Minister of Social Affairs and Employment has not provided clarity about bogus self-employment. Commissioned by the Ministry of Social Affairs and Employment, the Borstlap Committee has carried out research and put forward recommendations to reduce the gap between employees and self-employed persons, but an arrangement that has an actual effect on the organisation of the work in the e-commerce sector is not anticipated in the next few years.

8 En route to 2025

Prior to the corona crisis, the transport and logistics market grew as a logical consequence of the booming economy, in which more people were in employment than ever before, investments by companies were increasing and expenditure by consumers and the government was higher than ever. It was anticipated that, in the future, growth would level off and, therefore, also that transport volume by road would show a more modest growth until 2025 than in 2019. Since the onset of the corona crisis in March 2020, the period of economic growth ended suddenly. The CPB's basic projection anticipates a fall in GDP of 6% in 2020, followed by a growth of 3% in 2021. The International Road Transport Union (IRU) foresees a global decline in revenue of an average of 17% for road transport companies. Due to the current uncertainty, the economic situation post-2021 is very difficult to predict. The period of 2021-2025 will probably be characterised by average moderate economic growth.

Parallel to the growth in transport volume, changes were evident in various supply chains. Supply chains are changing due to the rise of the platform economy, an increasing shift from B2B to B2C and technological innovations. In addition, there is increased pressure to reduce CO2 emissions. The transport and logistics sector must respond to these changes.

Transport activities will be registered at an ever more detailed level. The data recorded as part of this process is increasingly combined with open data sources, so that adjustments can be made earlier and more proactively. Increased data usage ensures more transparency, which will keep the pressure on rates and returns.

In the sector we are seeing 'rejuvenation' of the workforce in the logistics sector and in office roles, however there is an ageing workforce in terms of drivers. These developments require an active recruitment policy which focuses on a new inflow. In addition, an active reskilling programme and continuing professional development are required to ensure that employees within the sector are aware of the technological changes faced by the sector.

Innovations in autonomous driving and 3D printing are under development, but will mainly have an effect in the period post-2025.

8.1 FUTURE PERSPECTIVE ON PROFESSIONAL GOODS TRANSPORT BY ROAD AND LOGISTICS

Economic development is very volatile and requires flexibility

After a few good economic years, transport volumes have risen sharply and it is anticipated that, by 2025, these volumes will be at the top end of the CPB/PBL scenarios. Due to strong fluctuations in demand, companies must focus on flexibility of their assets. Things will get even more difficult for medium-sized companies; companies will either have to be large enough, or small and therefore flexible. The corona crisis and the slump in demand in the first half of 2020 reinforced this development. The guarantee for transport companies will weaken in the near future. Medium-sized companies, in particular, will suffer from the resulting adverse effects.

Changing freight flows, but road transport will remain dominant

It is anticipated that, until 2025, the main ports will remain dominant in the supply and transport of goods. Through the development of the new Silk Road, some of the volumes will, over time shift towards rail. However, the impact will be marginal through to 2025. As a result of a growth in re-exportation, an increase in temporary storage in the Netherlands is expected. In the long term, i.e. post-2025, it is expected that more goods will be produced locally through 3D printing, which will reduce the dominance of main ports in consumer goods.

The corona crisis has encouraged an increase in the reliability of supply chains and has reduced the dependence on foreign countries. Not only companies, but also governments are looking at ways of safeguarding supply chains against disruptions. This is why nearshoring (the transfer of work to companies that are geographically closer) is expected to play a greater role in the run-up to 202 5.

Despite the sustainability requirements, the shortage of drivers and increasing congestion, road transport will remain the dominant mode of transport. This is not only because road transport will become sustainable faster than inland shipping, but also because there will be better use of road capacity. It is expected, however, that the percentage of Dutch registration plates in international road transport will continue to decline. This is because differences in labour costs in the European Union have not declined over the past ten years and this is not expected to happen over the next few years. The increasing possibilities of cross-border transport with longer and heavier combination trucks (LZVs) lends additional impetus to road transport.

Delivery to cities and regions is growing further apart

Differences in distribution concepts between cities and rural regions are expected to widen. This doesn't only apply to distribution, but also to the type of vehicles, because electric transport will become the standard in cities.

The influence of vertical farming on transport flows will become noticeable by 2025. Because much less ground surface is required for vertical farming, production sites will be created close to the areas where products are sold (cities). This will result in more short-distance transport.

A shortage in drivers remains a challenge, but this is manageable

Every year since 2011, there has been an outflow from the sector of between 14,000 and 16,500 people, of which between 6,800 and 8,600 were drivers. The outflow will remain high in the short term, due to a high demand from other sectors and through the ageing workforce. When growth turns into decline (in the low CPB/WLO scenario), by 2025 employment in the sector will fall by more than 8,000 jobs, but in the high scenario, there will be more than 14,000 additional jobs (3,000 of these jobs will be for drivers).

In combination with the need for replacement, tens of thousands of vacancies will have to be filled in the sector over the next 7 years, in a labour market in which every sector is crying out for personnel. Up to 2025, every year between 6,000 and 7,000 truck drivers will have to join the sector in order to fill the vacancies. These will mainly be truck drivers in the domestic market. In terms of other vacancies, significant growth is expected in the number of delivery van drivers and logistics staff. The delivery van drivers group is growing much faster than the number of (international) truck drivers (it is anticipated that this number will increase by 15,000 up to and including 2025). Growth in employment is mainly at the bottom end of the sector (scale A-C), while the number of international drivers is slowly declining. The growing number of delivery van drivers can serve as a 'training school' for truck drivers. As the labour market is tight, the professional goods transport sector will compete with other sectors, more than was previously the case, for starters in the labour market and newcomers.

There is also a shortage of warehouse staff, especially low-skilled labourers (order pickers, fork-lift truck drivers and sorters). Unlike in the transport sector, in logistics robotisation offers a solution that is both deployable and affordable in the short term.

Roles in the office change substantively as a result of the new opportunities

available in IT, automation and data analysis. These new opportunities lead to new roles. This also requires different competencies. Employee development is a shared challenge. Employees have their own responsibilities, whilst employers are responsible for creating good conditions.

Through platformisation and growth in e-commerce, more drivers are required at the lower end of the market

The B2C segment is becoming increasingly important In the sector. The number of physical stores will continue to decline until 2025. There will be an explosive growth in delivery van transport. Forwarders' needs will also change in logistics, because e-commerce requires considerably more warehousing capacity than is required for (the same volume of) retail distribution. The demand for e-fulfilment capacity will therefore increase.

Distribution within the 'Groceries and food' segment will grow into a professionally executed logistics activity, in which the influence of the platform economy will play an important role. Companies active in this segment will not automatically be committed to the CLA for Professional Goods Transport, because many companies active in this segment are from outside the transport industry. This requires action at CLA parties and in these new logistics companies.

Due to the growth in e-commerce and home deliveries, which have been given an additional boost by the 'new normal' since the onset of the corona crisis, private consumers are increasingly coming into contact with 'transport'. This also includes a growing number of preferences and demands for transport, delivery, the associated services and the logistics service provider. This has an impact on the employee, who must be much more service-orientated.

It is expected that the share in collection points will not increase further irrespective of the increasing costs of home delivery and the additional pressure on the logistics organisation. It is anticipated that solutions are more likely to be smart letterboxes or delivery services that don't necessarily come to your home, but to your chosen location, as opposed to collection points.

The difference in delivery between cities and regions requires a different logistical approach. The 'drop density' in cities is so high that other delivery options are a possibility. Those differences between the city and region are already present, but it is expected that delivery services will anticipate these to a greater extent in their logistics concepts.

Construction and industry require dynamic transport and flexible logistics

In construction and industry, in addition to growth in container transport, an increase in the transport of construction materials through container chassis is anticipated. In construction and industry, the delivery times and windows will be shorter and more flexibility is required. In construction, this is the result of an increase in the percentage of inner-city construction sites. As traffic in inner cities should be disrupted as little as possible, construction sites and delivery windows are tightening. As a result there is also less space to store and deliver building materials. End consumers of industrial companies are increasingly less willing to wait for orders, but are more likely to place last-minute orders. In the medium term, product variants will increase, but average industrial batch sizes will decrease. In the long term, less transport by tankers and silo trucks is also expected, due to decreasing fuel volumes as a result of the shift to electric transport. All of these factors combined require dynamic transport and flexible logistics which can respond to rapid variations in supply and demand.

A market shift puts more pressure on traditional carriers and service providers

As a result of the growth in e-commerce, the amount of transportable volume in the Netherlands will increasingly be transported to consumers by delivery van. This is at the expense of distribution transport by truck. At the same time, through urbanisation, increasing congestion and stricter environmental policy, home delivery will increasingly take place using simpler means of transport (bicycle couriers) and employment (part-time jobs for students). If traditional carriers do not react to these developments, new entrants to the market will utilise that technology and other employment relationships, in order to meet the changing requirements more effectively.

Implementation of the CO2 reduction policy remains a topic of discussion

As a result of pressure from the EU and the general population, in the years ahead Central Government will have to take stricter action in order to achieve climate goals.

Introduction of the CO2 tax, without further sustainability of the transport sector, will entail enormous cost increases. In a sector such as transport and logistics, those costs will not easily be passed on without accompanying measures, but this requires the sector to formulate and set out solutions (in line with, for example, the petrochemical market).

A long way to go for alternative-fuelled freight vehicles

In the longer term, alternative-fuelled vehicles will be required. It is expected that the transition to alternative-fuelled vehicles will start with delivery services and then, via national distribution, will spread to international transport. The options for alternative fuels are better in the short term for short and light transport. The first companies are currently already building up experience with electric delivery vans, but this is generally not yet cost-effective. The additional pressure of CO2 reduction and sustainability means more attention is paid to pooling and flow-through.

Alternative-fuelled vehicles are currently more expensive than diesel vehicles and that will not change before 2025. The prices will, however, come closer together as a result of manufacturers scaling up the production of trucks that use alternative fuels. However, for the successful and effective integration of alternative fuels into the transport sector, huge investments are required, predominantly in charging, refuelling and distribution infrastructure, which individual transport companies cannot afford.

A protected and regulated market will lead to healthy returns for the sector

Because of the social inequality between Eastern and Western Europe, the existing protective measures for the transport sector will not quickly disappear. These protective measures require monitoring, but it is difficult for inspection authorities to significantly increase the chance of being caught following violations in the Netherlands. Barriers to effective electronic monitoring remain. The lack of clarity in respect of (bogus) self-employment and the Posting of Workers Directive are hampering the inspection authorities.

A cross-company view offers new options for optimisation

The sector is very efficient within the frameworks that apply to professional goods transport. Nevertheless, by looking at things differently and, in particular, by taking a cross-company view, there are new optimisation options as a result of the new technology. This can lead to disruption. Companies will therefore have to focus on cross-company optimisation of the load factor. This requires data platforms, as well as partnerships or matching platforms.

As yet, the willingness within the professional goods transport sector to take a cross-company approach, is limited which is because of the slim margins and strong competition.

Investments are mainly made on a smaller scale and for the shorter term, such as the automation of sub-processes in the interests of cost reduction and revenue maximisation. Large-scale investments and the adjustments that are required to guarantee continuity in the long term and to enable the company to grow, are therefore largely absent. In many cases, companies are not strong enough financially. As a result, there is no innovation of the business model.

Technology: preselection based on revolution

The effects of new radical technologies, such as autonomous driving, physical internet, blockchain and 3D printing, will become visible in the run-up to 2025, but will not yet revolutionise things. Post-2025, these technologies will radically change the markets. Nevertheless, technology will also become a very important differentiator for the transport operator in the short term.

In the transport sector, above-average monitoring has taken place for years, using sensors, trackers and transmitters, which are connected to the Internet of Things. But the pace of technological innovation in the economy and society in terms of IT and data continues to increase. That is because the growth in computer capacity is not linear but exponential. On the other hand, the costs of increasingly powerful computer chips and data storage are falling rapidly.

A number of companies have participated fully in the digital data revolution. They have managed to link the physical flows of goods in transport and logistics to the digital data flows. This offers all kinds of possibilities for better business operations and new services. It also provides an in-depth insight into the cost structure of transport routes and provides a strong starting point in tariff negotiations with forwarders.

8.2 SCENARIO FORMATION

Based on the trends in chapter 7, paragraph 8.1 describes a vision of what the transport and logistics sector is expected to look like in 2025. However, there are several uncertainties that influence that future vision. We believe there are two main uncertainties that the transport sector and the social partners can influence and that determine the future of the professional goods transport sector. Two hypothetical extremes have been distinguished for each of these uncertainties, to give an impression of the situation:

- Regulation and enforcement
- Innovation.

Regulation and enforcement

The policy line that politicians will follow for professional goods transport has a huge influence. The main political player in this case is the Dutch Central Government, but also lower levels of government (municipalities and provinces) also impose conditions on the transport sector to a certain extent. EU policy is also crucial in terms of transport legislation and international cooperation between inspection authorities. Regulation and enforcement determine the following:

- Access to the profession;
- Access to the market;
- Fair competition;
- Compliance with the CLA;
- Enforcement of sustainability.

One extreme is deregulation of professional goods transport with limited enforcement: O**pen market.** In this situation, protection of the Dutch professional goods transport sector is (virtually) non-existent. The requirement of employment will be eased. This makes the professional goods transport sector open to new entrants who organise their transport differently to the norm. Governments take on less of a steering role, to prevent competition in labour costs. The budget and the technical and legal capabilities of the inspection authorities have been reduced, making enforcement more relaxed and the chance of being caught is of lower significance. Compliance with driving times and rest periods is still enforced but only for safety reasons. The pressure from governments on transport operators to become more sustainable is being relaxed.

The other extreme is strict regulation and enforcement of professional goods transport: **Regulated market.** In this situation, regulations and enforcement are (to the contrary) tightened. New entrants must meet the conditions in order to gain entry into the Dutch professional goods transport sector. Competition in labour costs is tackled at EU level, resulting in a level playing field. This makes social dumping more difficult, but also less attractive. The budgets and capacities of inspection authorities are being expanded from a quantitative (more inspectors) and a qualitative point of view (better use of technology), which increases the chance of being caught and systematic violation no longer pays. The pressure from governments on transport operators to become more sustainable is being stepped up significantly – CO2 reduction is therefore enforced through legislation and enforcement.

Innovation

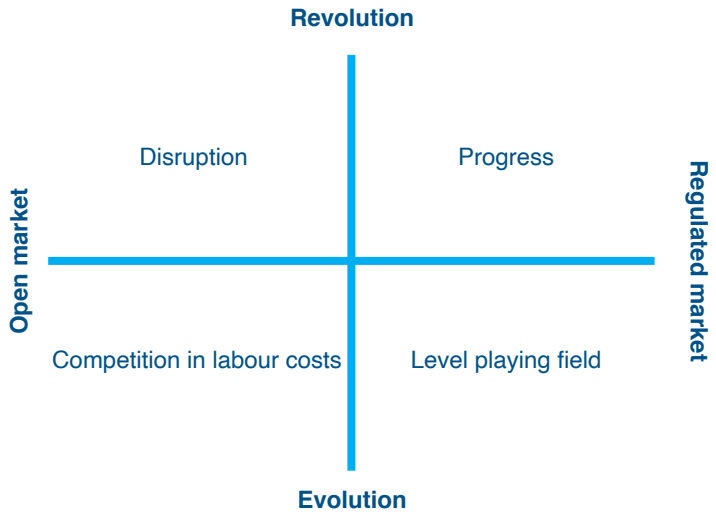
Innovation is the second decisive uncertainty for the future of the professional goods transport sector. This concerns the degree of development and adoption of technological innovation, but also the degree of social innovation.

One extreme is a low rate of development and adoption of innovation: **Evolution.** In this situation, the focus is not on sustainability, but it is mainly 'business as usual'. Transport companies take on the following role compared to other sectors. Transport is not a forerunner, but a follower of new technologies, such as Business Intelligence, matching platforms or Artificial Intelligence. There will only be an uptake of existing technologies if these are imposed by forwarders. The employment relationships will remain as is, the working hours will not change, drivers will continue to work long days and, in warehouses, flexible employment with unpredictable working hours will be considered standard.

The other extreme is a high degree of development and adoption of innovation: **Revolution.** In this situation, transport companies are actively looking for new ways of improving processes and the personnel policy. Transport companies are entering into partnerships with IT and tech companies, in order to take on an important role in the development of existing and new technologies. The use of existing technologies, digitisation and data-driven strategies is gaining momentum. Employees become human capital, are trained more effectively to deal with new technology. Control over processes resulting from new technology is also used to organise work in line with the employees' wishes. In warehouses, physical work is being automated at a rapid pace.

When the two uncertainties are shown as axes in a diagram, this yields the four scenarios shown in figure 67.

Figure 67 Four scenarios



Source: Panteia and Basis & Beleid

In the following subparagraphs, the four scenarios identified are explained in detail.

8.2.1 Scenario 1. Disruption

The transport sector is opened up by parties from outside the sector that quickly assume control.

Scenario 1 is the combination of open market and revolution. Parties from outside the sector will have an influence on the professional goods transport market, the so-called disruptors. These disruptors organise transport at the lowest costs in a way that only takes their own interests into account and place all risks applicable to the transport sector (entrepreneurial risk, incapacity for work risk, empty kilometres, CO2 emissions, variation in employment on offer) on small sub-contractors or self-employed persons. These new entrants can open up the market in two ways: through the use of technology or through scale. Tech-driven disruptors become directors of the chain, or they create new business through the smart use of technology. Tech-driven disruptors can be either existing (smaller) examples of disruptors, such as parties like Coolblue, Picnic, Deliveroo and Uber Freight. Large multinationals act as disruptors based on scale. These are

companies with large and extensive networks, that use these networks to organise transport on a large scale from the start. Potential candidates are parties like Zalando, eBay and Alibaba. Parties that combine tech-driven business operations and scale are the main candidates for disruption. The textbook example is Amazon. Amazon has a global logistics network and makes optimum use of technological capabilities, some of which are developed internally. When business activities are of a high quality, Amazon will scale these up and platformise them (i.e. offer them as business services for third parties). Disruption can, of course, come from another angle. This is when a party with matching technology and a party with transport capacity meet. For example, a tech-start-up or IT supplier and a leasing company or manufacturer.

Disruptors can turn competitive relationships on their head within the transport sector. They become the most important forwarders in the fast-growing final part of the transport chain, the delivery from seller to customer. The new entrants are gaining market share at an astonishing rate. Even though they initially use existing carriers, the influence of disruption can already be felt. This is because customer expectations can change very quickly when a party offers innovative services and/or an increased service level. In the longer term, the transport sector will be controlled by a small number of very large international companies. In order to quickly expand capacities or to create a flexible shell, the disruptors will connect with existing and possibly new carriers. This enables them to build up a large network of parties that use some of their services as a contractor, but also work for the disruptor as a sub-contractor. Established carriers are increasingly dependent on the new entrants and their rapidly expanding networks: they lose control of the chain, their returns will decline or their customer base will reduce in size. As a result, there is increasing pressure on costs in a growing market and there is a threat of a shake-out in the sector. Established carriers are increasingly dependent on such networks and must save costs at the risk of losing their position.

The lack of (protective) regulation and monitoring and limited enforcement thereof doesn't only open up the transport sector to new entrants. There will also be a decrease in an employee's average level of protection. This offers companies more opportunities for competition in terms of labour costs, through the use of self-employed persons and/or employees from low-wage countries, who are not paid in line with the Dutch CLA. This results in a transport sector with, on average, little job security, poor working conditions and high work-related stress.

Sustainability is not firmly enforced by governments. For the majority of companies, this is a reason not to invest in a reduction in emissions. Amongst the gigantic corporations which are in the driving seat, there will be more of a focus on sustainability, based on PR considerations.

Scenario 2. Progress

The transport sector innovates and takes responsibility in terms of labour and sustainability based on technology.

Scenario 2 is the combination of regulated market and revolution. Transport companies are committed to fighting the challenges facing the sector (empty kilometres, CO2 emissions, staff shortage, low margins, etc.). Their weapon is technology. On the one hand, for existing, often unused technologies, this means that implementation is gathering pace. On the other hand, transport companies play an active role in the development of new technologies, for example by entering into partnerships with tech companies and start-ups. There is a significant growth in the number of carriers that use BI and data-driven processes and business operations. As the transport sector has now matured in terms of data analysis, carriers are stronger in relation to the forwarders, whose control is no longer a major determinant. Transport operators therefore feel stronger during tariff negotiations with customers and they know how to improve their margins a little. Administration, documentation and communication are quick and smooth, which improves the flow in chains; not only because communication is now fully digital and largely automated, but also because technology offers guarantees when sharing data with known and unknown parties. Continuous improvements in scheduling has resulted in a reduction in work-related stress.

The protective role played by governments is crucial for achieving the aforementioned situation. By lowering the lower limit in the WWG to 0 kg, all goods transport activities are subject to the same conditions (such as the requirement of employment and generally binding CLA that has been declared applicable) and parties outside the sector must also work according to the rules. Unambiguous EU legislation allows foreign employees to only be used if they receive wages in line with the CLA. As a result, Central and Eastern European drivers are used in professional goods transport, but this is because of labour shortages and is not based on competitive considerations. Governments support the strengthening of regulations by greatly expanding the budgets and the technical and legal capabilities of enforcement authorities, such as the ILT (Netherlands Human Environment and Transport Inspectorate) and ECR (Euro Controle Route). The risk

of getting caught has now reached a level where violation of driving times and rest periods is discouraged by the CLA and EU legislation. Smart and risk-orientated enforcement and cooperation with other regulators, which keeps notorious offenders out of the market, ensure that companies that are compliant are not overburdened with unnecessary checks. Unfair competition will largely disappear and there is a level playing field. Fair competition and employee protection ensure that employers tackle the labour shortages by investing in sustainable employment and career paths. The average level of wages and working conditions will increase. Both carriers and forwarders will (have to) take responsibility and pay good rates for fair transport.

The combination of more effective enforcement of fair competition, and the improved margins, because forwarders feel more responsible for compliance with the rules, has two effects. Firstly, the willingness to collaborate and for cross-company working through platforms is growing. These are platforms in which participants have the role of partner, in which one single party is not in control (such as in scenario 1). That is because there is less unfair competition, increased willingness to share data and increased willingness to step out of the comfort zone because of the challenges in the sector, such as empty kilometres and CO2 emissions. The sharing economy is also growing and companies will make more use of platforms to exchange trucks and warehouse space, for example. Secondly, more money will be made available for sustainability. This is not only a result of increased responsibility, but is also enforced by governments tightening the thumbscrews through legislation. The uptake of alternative fuels and other emission-saving technology is rapid and widely supported.

8.2.3 Scenario 3. Competition in labour costs

The transport sector is resorting to ongoing competition in labour costs. Innovation is not included in this.

Scenario 3 is the combination of open market and evolution. An agreement is not reached at international (EU) level. The unlevel playing field in the international professional goods transport sector is also shifting to domestic transport. There will be a decrease in an employee's average level of protection. There are more opportunities for competition in labour costs. Through a fundamental breakdown in the level of enforcement, the monitoring and the risk of getting caught are marginal. This opens the door to all kinds of undesirable practices, such as tachograph fraud and disregard of the driving times and rest periods. In this scenario, three factors lead to a general shake-up of employment relationships and the

competitive structure of the transport sector. This will lead to a chaotic situation in the professional goods transport sector, especially during the initial phase.

As the requirements for entry into the market are becoming less important, new entrants are entering logistics chains. However, this scenario doesn't concern large multinationals or tech start-ups with a new outlook on the chain. These are mainly letterbox companies in low-wage countries (requirement of genuine business presence) that operate under the average cost level, small carriers with delivery vans (lower limit of the issue of licences) and (bogus) self-employed persons.

Secondly, the labour shortages will become acute within the transport sector: from a quantitative, but especially qualitative point of view. This is also an alibi for disruptors to organise the work differently (as well as deregulation of the profession and the market). The lack of (social) innovation and the loss of employee protection will result in a worsening of the transport sector's image. Potential new employees and entrants will therefore choose to work in similar sectors (in terms of educational level and physical work), such as the construction, industrial or metal sectors. That is because, in these sectors, the average work-related stress is lower, the average wage higher and the working hours are better and more regular. As a result, transport companies will not be able to resolve the replacement issue (caused by ageing) by drawing from the traditional pool. In addition, there is the limited growth in the number of drivers needed to meet demand. Technological solutions are used to a very limited degree, to organise the work more efficiently or to reduce work-related stress. This has created a breeding ground for new entrants to the lower end of the sector. The quality of the supply in the labour market is declining.

Thirdly, many established carriers will fail. On the one hand because there is fierce competition from parties that push the boundaries of the law, and sometimes also operate on the wrong side of the law, and can therefore offer cheaper services. On the other hand, because they are unable to find the staff they need to organise operations properly, as a result of the labour shortages. Medium-sized companies in particular are facing difficulties. These companies are already under pressure in 2019, because they do not have the economies of scale of the large players, but do have higher overheads than smaller players. In short, a number of large forwarders, logistics service providers and carriers will determine the competitive structure within the sector by connecting with a large 'flexible team' of foreign companies and employees, smaller players and freelancers.

There is no room for innovation as a means to overcome the challenges, but in professional goods transport, social dumping is the consequence of looking to minimise labour costs. Carriers themselves can only invest in technology to a limited degree. For example, the digitisation of administration, documentation and communication will continue, but smart automation will not be included. Mutual cooperation, cross-company working and platformisation of transport are rare because of the low innovative capacity. The challenges being faced by the sector (visibility of profitability, tariff enforcement, load factor, etc.) are therefore only limitedly tackled. Because of this, transport is at the bottom of the list for forwarders that do invest in transparency (BI, control tower, etc.) . But this tendency also exists within the sector: at larger transport companies, sub-contractors are at the bottom of the list. This lack of a sense of responsibility is reinforced by a lack of significance within the Dutch Wages and Salaries Tax and National Insurance Contributions (Liability of Subcontractors) Act (Wet Ketenaansprakelijkheid).

In terms of sustainability, the transport sector has stagnated. Governments at different levels are not increasing pressure on CO2 reduction. There is also a lenient approach to enforcement of sanctions relating to achieving the CO2 targets and this is not being monitored as closely. In addition, the lack of innovation also hampers the sustainability of the professional goods transport sector. The uptake of alternative fuels is limited to, for example, one to two electric trucks for PR purposes at larger companies. A good business case hasn't (yet) been found for alternative fuels. There has therefore not been a meaningful uptake.

8.2.4 Scenario 4. Level playing field

The transport sector offers no scope for unfair competition or new entrants, but innovation is slow.

Scenario 4 is the combination of regulated market and evolution. In this respect, governments take on a protective role for transport companies, by making licence requirements stricter and enforcing these. Governments also offer more guarantees for employees, through more extensive legislation, preventing competition in labour costs. Freelancers are only used when they themselves opt for this type of work and no longer as a bogus self-employed person. Unambiguous EU legislation allows foreign employees to only be used if they are paid in line with the CLA. As a result, Central and Eastern European drivers are used in professional goods transport, but this is because of labour shortages and is not based on competitive considerations. Unfair competition is largely disappearing

and there is a level playing field. Better legal protection of employees, in combination with the labour shortage, results in employers investing more in sustainable employment and career paths The level playing field that has been created and the improved position of employees is guaranteed by means of extensive enforcement and a relatively high chance of being caught.

A climate is emerging within the sector in which 'business as usual' is the norm: because of this, innovation isn't at the top of the list of priorities for the majority of companies. Carriers still invest in technology, but the focus is more on keeping up with technology, rather than innovation. For example, the digitisation of administration, documentation and communication will continue, particularly in small companies that are still making progress in this respect, but smart automation will only be used limitedly. Pilots with technologies like blockchain, AI and platooning are not prioritised. Sizeable investments are being made in alternative fuels, because environmental legislation is being made tougher at a rapid pace. The sustainability of transport is therefore mainly seen as a necessity and not as a way of a company distinguishing itself and/or innovating.

The need for innovation is underestimated, because in this scenario carriers are better protected against the power of forwarders. By expanding and enforcing the Dutch Wages and Salaries Tax and National Insurance Contribution (Liability of Subcontractors) Act (Wet Ketenaansprakelijkheid), they have a way of countering the pressure on tariffs by forwarders. During tariff negotiations, transport operators can successfully argue the necessity of working sustainably with people and the environment. The need for innovation isn't really seen. In the short term, this will indeed lead to improvements in tariffs, but a shortage of personnel and high outflow continues to affect companies and, in the longer term, forwarders are regaining ground. They do invest significantly in innovation, for example, in the Internet of Things, control towers and BI. This could be in combination with insourcing of transport by forwarders, given that, in a level playing field, the risks in the chain can no longer be shifted to the carrier.

The delayed uptake of technology will only limitedly reduce competitive pressure within the sector, despite the improved tariffs. In the absence of uptake of digital platform technology, there has been no increase in the needs and opportunities for cross-company working. The limited innovative climate will result in carriers only being able to look for new customers and/or new business to a

limited degree. Instead, the focus is mainly on consolidating existing activities and the customer base. Competition will therefore remain fierce, but will not lead to work-related malpractices and social dumping.

The combination of a highly regulated sector and the lack of influential technological innovation reduce the chance of external disruption in this scenario. The threat of disruption then only comes from companies that can arrange their own transport, or that know how to handle this, without the restrictions that goods transport entails. Lowering the Euro licence limit offers the transport sector better protection against violation by parties external to the sector. However, this guarantee is less relevant in this scenario, because the slow pace of technological development inhibits disruption. Both potential 'intruders' in the sector and transport companies give low priority to innovation; the use of technology is therefore limited.

9 Lines of action

In the run-up to 2025, the interpretation of the political policy (an open transport market versus a regulated transport market) and the degree of innovation (evolution or revolution) will determine the development of the goods transport by road sector and logistics. This interpretation can be influenced by the social partners in the professional goods transport sector. Of the four scenarios that have been distinguished, scenario 2 'Progress' is the preferable future scenario.

This scenario is based on a regulated transport market and rapid technological progress. For example, regulations are better enforced, which will reduce unfair competition. The employee is protected against bogus schemes and transport companies are given the space and money to invest in new technology, thereby bringing about an improvement in efficiency and a reduction in emissions.

In this final chapter, lines of action and recommendations are made, which can help the social partners within the professional goods transport sector to work towards the 2025 Progress scenario.

The lines of action have been grouped into four main lines of action:
1. Bring about a culture change in employers and employees, focused on innovative and technology-driven transport and logistics;
2. Focus on responsible market behaviour, effective enforcement and sustainability in the chain;
3. Continue active recruitment efforts and respond to social innovation;
4. Prevent a decrease in staff capacity as a result of the corona crisis.

These four main lines of action are elaborated on further in the following paragraphs

9.1 Bring about a change in culture and image, focused on innovation and technology

1. The industry should profile itself more actively and proudly based on innovations already taking place in the transport and logistics sector. In doing so, the sector can make use of its position as a pioneer in, for example, the technological aspects of autonomous driving and hyperloop. This improves the sector's high-tech image.
2. The industry can more actively convey how digitalisation, i.e. digital consign-

ment notes, help to optimise the chain. This conveys the fact that the transport and logistics sector is high-quality and innovative.
3. Encourage innovative pilot schemes and actively communicate them.
4. As an industry, encourage companies to collaborate with new partners that are technology-driven. Connect the sector more actively with the technical universities in the Netherlands.
5. Also show how transport companies utilise the value of their data. BI analyses and dashboards are currently valuable in process optimisation and strategy development by offering a deeper understanding of both the strengths and the obstacles within the process as cost components and sources of income for the company.
6. Companies can make more use of the benefits of new scheduling technologies. Modern scheduling packages increasingly use public dynamic data sources and potentially artificial intelligence in order to optimise scheduling. Not only does this increase the efficiency, but can also help to lessen work-related stress experienced by employees. In the long run, automated (anticipatory) scheduling will even allow fewer drivers to be used. This will enable the driver shortage to (partially) be resolved and the sector will contribute to a reduction in CO2 emissions.
7. Encourage and facilitate carriers to compete based on added value, as opposed to price. And encourage companies to specialise. Specialisation leads to a better position in the value chain.
8. More is needed to get companies to take a cross-company approach. Carriers are aware of the advantages, but they are reluctant to share data, assignments and/or customers. Bring knowledge to the sector that can help a response to the platform economy.
9. Create a mechanism in the sector that encourages both employees and employers to accelerate adoption of new technologies and to motivate them to do so.

9.2 Focus on responsible market behaviour, effective enforcement and increasing the sustainability of the chain

10. Focus on responsible market behaviour, effective enforcement and increasing the sustainability of the chain
11. Through campaigns, the sector can draw more attention to the fact that there is no such thing as free transport. Not only with the forwarder, but also through a public campaign with the (private) end consumer, who is ultimately responsible for this service being provided.

12. The margins of many companies are slim and tariff increases generally follow later than cost increases. In the current period of economic boom, it is likely that costs will increase more than average in the forthcoming years. This requires good cost calculations from the sector and any cost increases must be passed on correctly to clients. A healthy margin is required to be able to invest in sustainability and innovation. This is an ongoing focal point for companies and the sector, especially at a time when the first signs of a cooling economy are emerging.
13. Accelerate sustainability where possible. Develop a realistic picture for society about the pace, feasibility and effectiveness of CO2 reduction in the transport sector. Show what is already happening.
14. As far as possible, bring all activities under the generally binding CLA that has been declared applicable, which compete with activities of companies within the sector: both motorised and non-motorised transport of goods. After all, the scope of the provisions are not limited to motorised transport and the emphasis is on the transport of the actual goods, not how they are transported.
15. Focus on retaining the regulations concerning domestic transport and extend these to all forms of goods transport, with a strong focus on extending the requirement of employment to the delivery service market. Focus on reducing the enforcement limit to 0 kg, where these regulations must apply to all parties active in the delivery sector.
16. Maintain the requirement of employment, develop a model agreement which eradicates bogus self-employment and, in the DBT Act, create an exhaustive definition in order to combat bogus self-employment that is in line with the requirements for access to the profession and that creates a level playing field between self-employed persons and salaried employees.
17. Encourage more effective enforcement by making sufficient resources available and focus on the possibilities for 100% digital monitoring within the EU and monitoring by the government based on sampling. This requires sufficient quality of national and international regulations.
18. Since, from a legal point of view, promoting compliance with the CLA is the job of Works Councils, the sector must do more to stimulate the focus on compliance with the CLA by Works Councils[107].

107 Works Councils Act (Wet op de Ondernemingsraden), art. 28.

9.3 Continue active recruitment efforts and respond to social innovation

18. A CLA which keeps pace with the developments in the sector is required, by continuously updating job descriptions and appropriate regulations that are in line with the nature of new work.
19. Make more use of internal progression: from logistics worker to driver, from employee to manager. When that cannot be achieved within a company, companies must work together, including transport and logistics companies. The Sectorinstituut Transport en Logistiek (Sectoral Institute Transport and Logistics - STL) can play a role in this.
20. In the employee role handbook, define job pathways or career paths. Continue development of the employees' portal run by the Sectoral Institute (STL) on behalf of SOOB, to give more employees an insight into lines of development: what type of training is available to employees and what roles are available to employees who have undergone this training? As this is not in place, the sector loses potential workers to other sectors which offer better prospects.
21. Instruments for inflow, such as the recruitment activities, must fit in with the changing employment market where (amongst other things) there is a need for personnel with IT knowledge. This is now tight, instead of being spacious which was the case previously.
22. Expand recruitment activities to include other groups of potential employees. An initial and important step is to make the sector more appealing to women and/or to people wishing to work part-time.
23. Create conditions for employees to remain fit and healthy:
    a. As a sector, focus on retaining and expanding the fitness of employees (amongst other things) through the Pitstop programme.
    b. Help employees to become resilient to work-related stress and, where applicable, to increasing aggression in traffic and at the unloading point.
    c. The use of driver coordinators and training drivers and schedulers in communication skills helps reduce the tension between the scheduler's task (on time arrival at customers) and that of the drivers.
    d. 'One size fits all' approach does not exist: take into account the employee's specific characteristics when distributing work.
    e. As a sector, make use of opportunities to incorporate recovery time into the working week, especially during the final working phase.
24. Make sure that employees are competent:
    a. As a sector, tempt employees to do more training. This could be through career planning policy, or by offering more training facilities, which focus

on the employee's current or future role. Training could be viewed more, and used, as a change tool. As part of mandatory training for Code 95 for drivers, courses with a broader focus can be used.

b. As is the case in other sectors, invest more in, for example, career coaches, to galvanise employees into action. And focus on the roll-out of the STL Pitstop programme to the companies, the theme of which is 'growing in your work'.

25. Make sure that employees are motivated:
    a. The sector can increase motivation by promoting opportunities for part-time work, which could be in combination with self-scheduling.
    b. A good work-life balance is important and should be encouraged (also part of STL's Pitstop programme).
    c. Remuneration and benefits in line with similar businesses.
    d. Predictability of the working day, possibly through shifts or rotating shifts.
    e. More (prospect of) permanent jobs instead of temporary contracts, possibly through cross-company collaboration, to spread the risks of illness and peaks in work.

9.4 Prevent a decrease in staff capacity as a result of the corona crisis.

26. If possible, make extra efforts to maintain the inflow of young employees from 'training on the job' pathways in order to counter the 'dejuvenation' of the sector (as was the case after 2008). The decreasing number of students in senior secondary vocational education (MBO) and student places requires more effort. Co-financing is a precondition in this case.
27. Prevent overcapacity in subsectors severely affected by corona from being lost to the sector in the short term:
    a. Through temporary mediation by the Sectoral Institute (STL) (in the form of the hiring of colleagues) of employees to subsectors which temporarily have more work (physical distribution, parcel delivery).
    b. Through mediation, help redundant employees to fill vacancies at other companies within the sector, if necessary, by providing career advice, training on how to apply for a job and retraining (Pitstop programme).
    c. Through the temporary secondment of ex-employees in the sector, if possible. Assist ex-employees for whom a vacancy isn't immediately available elsewhere through employment with the intermediary (STL), to ensure that the employee remains with the sector. In this case too, co-financing is required.
    d. Continue to invest in retaining skills (such as Code 95) and, if necessary, offer career guidance and retraining in order to facilitate skills.
    e. Continue to invest in sustainable employment of employees.

28. Invest in attracting personnel who have become redundant in other sectors (including the food service industry, aviation, the coach industry and tax sectors) by offering training courses for lateral inflow (not only for drivers, but also for logistics roles, also see 1.3), with a prospect of permanent employment and a pension.

Appendices

APPENDIX 1 SUB-STUDIES THAT HAVE BEEN CONDUCED

table 26 Overview of sub-studies that have been conduced

Sub-studies	Conduced by
Helicopter view vision 2025 road transport and logistics	Panteia and Basis & Beleid
Demarcation of the sector	Panteia and Basis & Beleid
The future of vertical transport	Panteia and Basis & Beleid
The role of technology and the business model	Panteia and Basis & Beleid
Regulations and enforcement in transport and logistics	Panteia and Basis & Beleid
Comparison of wage costs between the Netherlands and Eastern Europe	Panteia and Basis & Beleid
Labour market in transport and logistics	Panteia and Basis & Beleid
The removals industry in 2025	Panteia and Basis & Beleid
Study into working conditions Professional Goods Transport CLA	AWVN
Comparison CLA Logistics sector and CLA Professional Goods Transport	AWVN

Source: Panteia and Basis & Beleid

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- Planbureau voor de Leefomgeving (Netherlands Environmental Assessment Agency): https://www.pbl.nl/
- Research Centre for Education and the Labour Market (ROA): http://roa.sbe.maastrichtuniversity.nl/
- Rijksdienst voor het Wegverkeer (Netherlands Vehicle Authority) (RDW): www.opendata.rdw.nl
- Samenwerkingsorganisatie Beroepsonderwijs Bedrijfsleven (Vocational education and labour market) Dashboards (SBB): https://www.s-bb.nl/feiten-en-cijfers
- Sectorinstituut Transport en Logistiek (Sector Institute for Transport and Logistics) (STL): www.stlwerkt.nl
- Statista: https://www.statista.com/statistics/1109296/online-retail-y-o-y-order-trends-during-coronavirus-in-europe/
- TLN Kennisbank (Knowledge Base): https://www.TLN.nl/
- Topsector Logistiek (Top Sector Logistics): www.topsectorlogistiek.nl
- Vereniging Verticaal Transport (Vertical Transport Association) (VVT): www.verticaaltransport.nl
- Wegenwiki (Road wiki): www.wegenwiki.nl

Legal texts and official notices

- Rijksoverheid – Wet Wegvervoer Goederen (Dutch Road Haulage Act): https://wetten.overheid.nl/BWBR0024800/2018-07-28
- Rijksoverheid – Wet Bevordering Integriteit Besluitvorming Openbaar Bestuur (Dutch Public Administration (Probity Screening) Act): https://wetten.overheid.nl/BWBR0013798/2018-07-28
- EC – COM(2018) 698: https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:52018DC0698
- EC – COM(2018) 439: https://eur-lex.europa.eu/legal-content/nl/ALL/?uri=CELEX:52018PC0439
- EC – Regulation (EG) 1071/2009: https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex%3A32009R1071
- EC – Regulation (EG) 1072/2009: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32009R1072
- EC – Directive 2002/15/EG: https://eur-lex.europa.eu/legal-content/NL/TXT/?uri=CELEX%3A32002L0015
- EC – Regulation (EG) 561/2006: https://eur-lex.europa.eu/legal-content/NL/ALL/?uri=celex:32006R0561
- EC – Regulation (EU) 165/2014: https://eur-lex.europa.eu/legal-content/NL/TXT/?uri=CELEX%3A32014R0165
- EC – Directive 2009/4/EG: https://eur-lex.europa.eu/legal-content/NL/ALL/?uri=CELEX:32009R0004
- EC – Directive – 2009/5/EG: https://eur-lex.europa.eu/legal-content/NL/ALL/?uri=CELEX:32009L0005
- Europees Hof van Justitie (European Court of Justice), 2011, Koelzsch judgment (Case-law 2011 I-01595)

Smarter working and smart working practices

A vision of social partners in respect of road transport and logistics by 2025

In 2018 the social partners commissioned research firms Panteia and Basis & Beleid to deepen knowledge about the sector and to provide the building blocks for an agenda for the sector's future.

The sector is evolving rapidly. International politics, developments in the labour market, developments in the shipping sectors, increasing attention for the environment and the rapid development of new technologies and new companies, will all potentially have an impact on the sector and require the vision of social parties, outlining how these changes should be dealt with. This vision is outlined in this document, which was finalised in early 2020.

SOOB
Stichting Opleidings- en Ontwikkelingsfonds Beroepsgoederenvervoer