

EUROPEAN STUDIES

Road freight transport in Germany in 2021



Comité national routier (CNR)

in cooperation with
Visemont

EUROPEAN STUDIES

Road freight transport in Germany

2021 study

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WARNING

Following on from the 2018 study devoted to the German RFT sector, which was published in June 2019, this survey, which was conducted in 2021, is intended to provide updated statistics concerning the activity of this sector as well as about the typical operating conditions and costs for a 40-tonne heavy goods vehicle used for international long-distance transport.

In some cases, data may have been updated to reflect figures from 2022. The representative profiles given are the same as the ones used in the context of the economic conditions prevailing in 2021.

It is also important to note that this study was conducted during the second year of the Covid health crisis. Some of the figures in this study may thus have been affected by the crisis. This point thus needs to be taken into account when interpreting the findings.

SUMMARY

The second largest European sector after Poland in terms of total activity, albeit the leader in terms of domestic activity, the German RFT sector has been experiencing a period of stagnation over the past ten years. It faces direct competition from its eastern neighbours, rising costs and an ever-worsening labour shortage.

In response to these structural problems, the sector receives frequent support from the government. Thus, since 1 January 2020, RFT companies have been authorised to pay their lorry drivers an accommodation allowance of 8 € (net) in addition to travel allowances. In 2022, new tax regulations offered hauliers the option of a flat tax of 25% on the portion of travel allowances in excess of the standard limit. The aim of the scheme is to reduce the tax burden related to employing drivers without increasing their wages.

However, compared with the 2018 study devoted to the German RFT sector, the CNR has observed an increase of almost 10% in standard driving personnel costs, notwithstanding a slight reduction in social security contributions. This increase is even more marked in the case of low-cost haulage (+30% since 2018). Pressure on drivers' wages is growing against the backdrop of significant increases in the minimum wage and a shortage of drivers.

According to CNR calculations, the cost per kilometre of a German 40-tonne heavy goods vehicle used for international long-distance transport, excluding fixed costs, is 1.13 € (as opposed to 1.046 € in 2018), an increase of 8%. This increase is largely due to a significant increase in driver costs, but is mitigated by the decrease in the driver/tractor ratio, due to the shortage. Other cost items that have experienced significant increases are tolls (+23%), tyres (+28%), maintenance-repairs (+17%) and vehicle ownership costs (+6%). The increase in the cost of fuel was offset by the fall in average consumption, which explains why this item has remained relatively stable.

In conclusion, when fixed costs (estimated at approximately 9% of total costs) are factored in, the overall per-kilometre cost rose to 1.24 € in 2021. Penalised by rising costs, the German flag is losing out on international business to the Polish, Lithuanian and Romanian sectors. Once the leader in international haulage, in 2021 the German sector ranked only 5th, and is increasingly focusing on its domestic market.

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1. ECONOMIC AND SOCIAL ENVIRONMENT OF THE GERMAN SECTOR

1.1. GERMANY IN BRIEF

Capital	Berlin
Area	357,376 km ²
Population	83,196,078 inhabitants
Official EU language(s)	German
Political system	Federal parliamentary republic
President of the Republic	Frank-Walter Steinmeier
Prime Minister	Olaf Scholz, since 8 December 2021
Minister of Transport	Volker Wissing, since 8 December 2021
Date of EU membership	1 January 1958
Date of adoption of the euro	1 January 2011
Seats in the European Parliament	96 seats
European Commissioner	Ursula von der Leyen, President
GDP growth (%)	+2,6% (Eurostat, 2021)
Inflation (%)	+4.5% (Eurostat, 2021)
Unemployment rate (% of active population)	3.6% (Eurostat, 2021)
Trade balance	+178.391 billion euros (2021)
Gross monthly minimum wage	1,621 € per month (as of 1 January 2022)
Greenhouse gas emissions	8.9 tonnes/inhabitant (Eurostat, 2020)

1.2. ROAD FREIGHT TRANSPORT IN GERMANY

TRANSPORT AND INFRASTRUCTURE POLICY

Note on German political institutions

In Germany, the so-called "vertical" division of political powers between the different levels of government is laid down by the Constitution. As far as legislation is concerned, air transport and the federal railways fall exclusively within the remit of the Federal State (Bund in German). In addition, the Federal State authorities may decide to establish a uniform set of regulations for shipping, inland navigation, road traffic (including infrastructure charges) and non-federal railways. In practice, the legal arrangements in each of these areas are governed by federal laws and regulations. On the other hand, the individual States (Länder) are responsible for regional and local public transport. Some States have further decentralized these powers, particularly regarding regional and local services.

Responsibility for infrastructure also depends on the mode of transport in question. In the case of road transport, each road in Germany is categorised according to the type of traffic involved. Federal agencies are responsible for roads that are primarily used for interstate traffic, with a further distinction made between federal motorways (Bundesautobahnen) and federal roads (Bundesstraßen). While all expenditures for federal roads are funded by the federal budget, the planning, construction, and maintenance of these roads is entrusted to the states, which leads to problems. In 2016, the federal government and the States agreed to transfer some of these powers to a new federal infrastructure authority. To date, this new authority has not yet been established. States are entirely responsible for roads that are important for interregional traffic (Landesstraßen and Staatsstraßen), while all other roads that are only important for local traffic must be provided by individual county and town authorities.

Transport policy

The German transport sector and its infrastructure suffer from under-investment resulting from the deficit reduction policies of the Schröder years. Faced with the urgency of the situation, Angela Merkel, during her third term as prime minister, decided to introduce a federal transport policy, known as FTIP 2030.¹ This plan is aimed, above all, at maintaining and modernising the existing network and at ensuring that it is geared to the new economic and environmental challenges of 2030. The plan recognises that strong traffic growth will increase the need for maintenance and modernisation. The number of kilometres travelled in Germany per capita is set to increase by 12.2% by 2030 compared with 2010. According to traffic forecasts for 2030, this is equivalent to an annual growth rate of 0.6%. In the same period, the

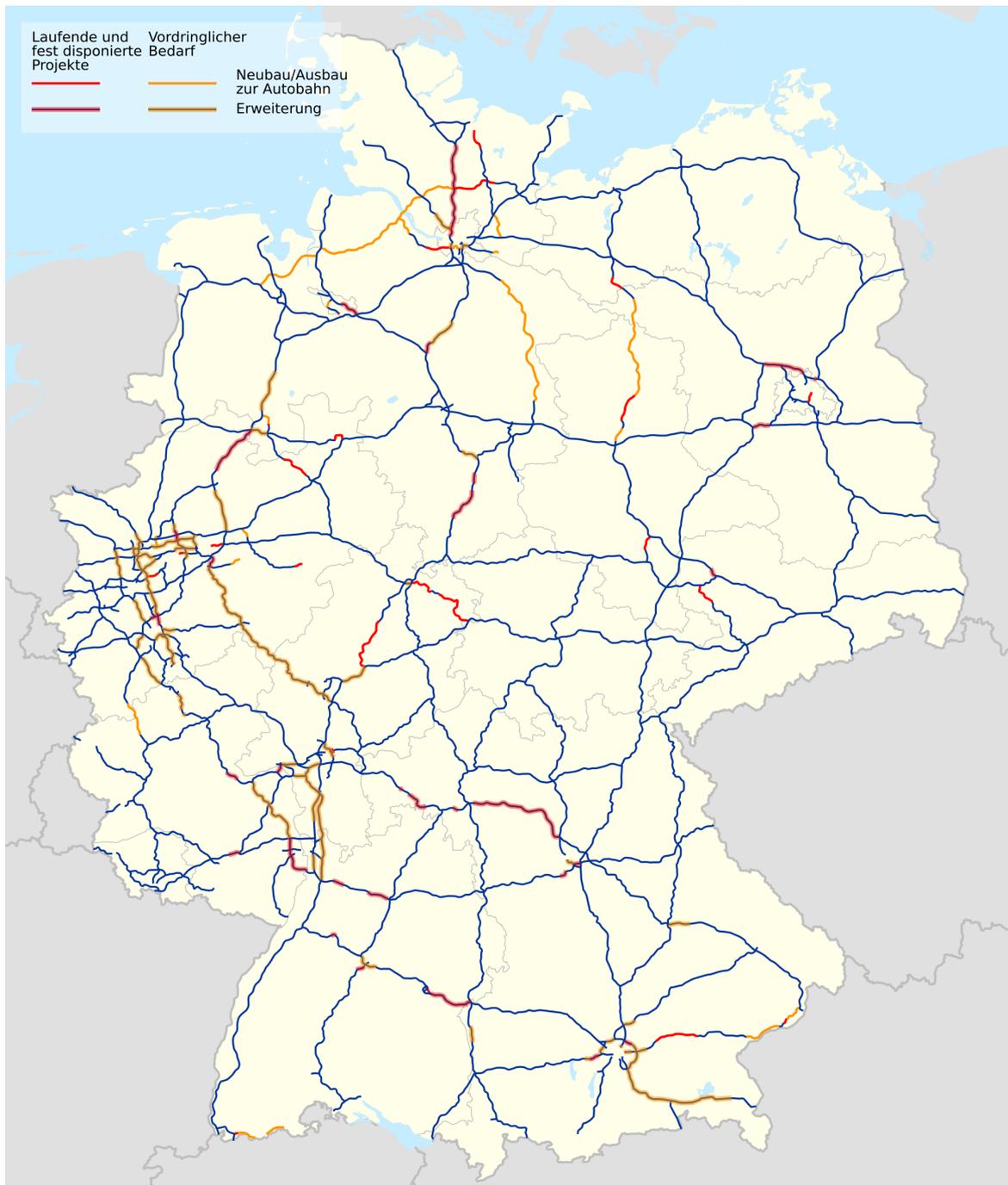
¹ https://bmdv.bund.de/SharedDocs/EN/publications/2030-federal-transport-infrastructure-plan.pdf?__blob=publicationFile

amount of freight is expected to increase by 38%. This means that many parts of the network need upgrading, and new construction projects will have to be undertaken.

In addition, the most recent forecasts regarding infrastructure maintenance and replacement requirements show that much more investment will be needed in the future than in the past if the existing network is to be maintained at a similarly high standard.

FTIP 2030 motorway projects: status in 2016

(red: projects in progress; red and black: urgently needed; yellow: new roads; yellow and black: future projects)



To meet this challenge, the German Federal Government has given priority to the maintenance, replacement and sustainable development of the public road system. To this end, "other methods for financing infrastructure projects need to be used in parallel with traditional forms of public funding. In addition, funds must be carefully targeted." Priority is given to the maintenance of existing infrastructure over the construction of new roads. The elimination of bottlenecks on congested routes is another priority. In 2016, the federal government launched a programme to reorientate its transport investment policy.

The allocation of additional "special infrastructure" funds, the extension of the user-pays principle and the greater involvement of private sector capital in federal government investments together form the basis for financing the federal government's objectives.

The total funding earmarked under FTIP 2030 is approximately 269.6 € billion. Out of this amount, 226.7 € billion is intended for the maintenance and upgrading of the existing network, as well as for several new construction projects over the period 2016 to 2030. An additional 42.8 € billion has been set aside to finance projects on which work is not set to begin before the end of the FTIP, but which require prior investment.

According to the plan, the structural maintenance of existing roads and railways, as well as waterways, will alone require around 141.6 € billion between 2016 and 2030. FTIP 2030 provides for an investment of 98.3 € billion to eliminate bottlenecks and improve traffic flow.

Out of the total funds allotted, transport and road infrastructure account for 49.3%, rail for 41.6% and inland waterways for 9.1%. In terms of modernisation and new construction projects (2016 to 2030), the portion earmarked for roads represents more than 53.6% of total funding (2.3 € billion per year on average). Meanwhile, rail will receive 42.1% (1.8€ billion per year on average) and inland waterways 4.3% (0.2 € billion per year on average).

Transport infrastructure and use

Modal split of freight transport in % (based on t-km)

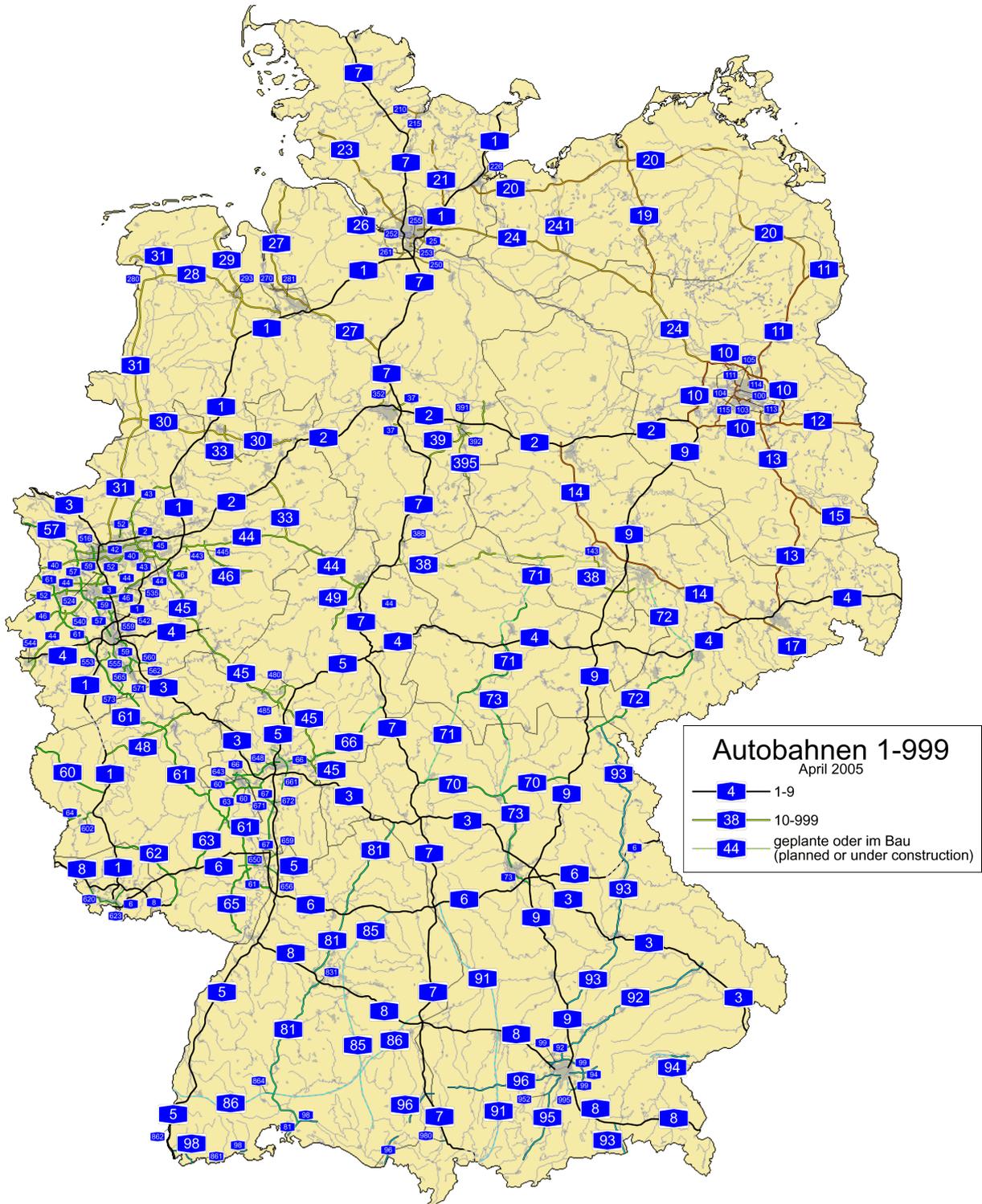
2019*	Road	Rail	Inland waterways
European Union	77.4%	22.6%	5.6%
Germany	73.4%	18.6%	8.0%

Source : Eurostat

*latest available data before Covid

Germany has one of the densest road networks in the world. There are currently some 651,000 km of roads in the country, including 231,000 km of category 1 roads. These include more than 12,800 kilometres of motorways (four lanes or more), 39,637 kilometres of expressways (Bundesstraßen), 86,474 kilometres of roads owned and maintained by individual States (Länder) and 91,710 kilometres of secondary roads. The remainder are local, municipal or private roads.

German motorway network

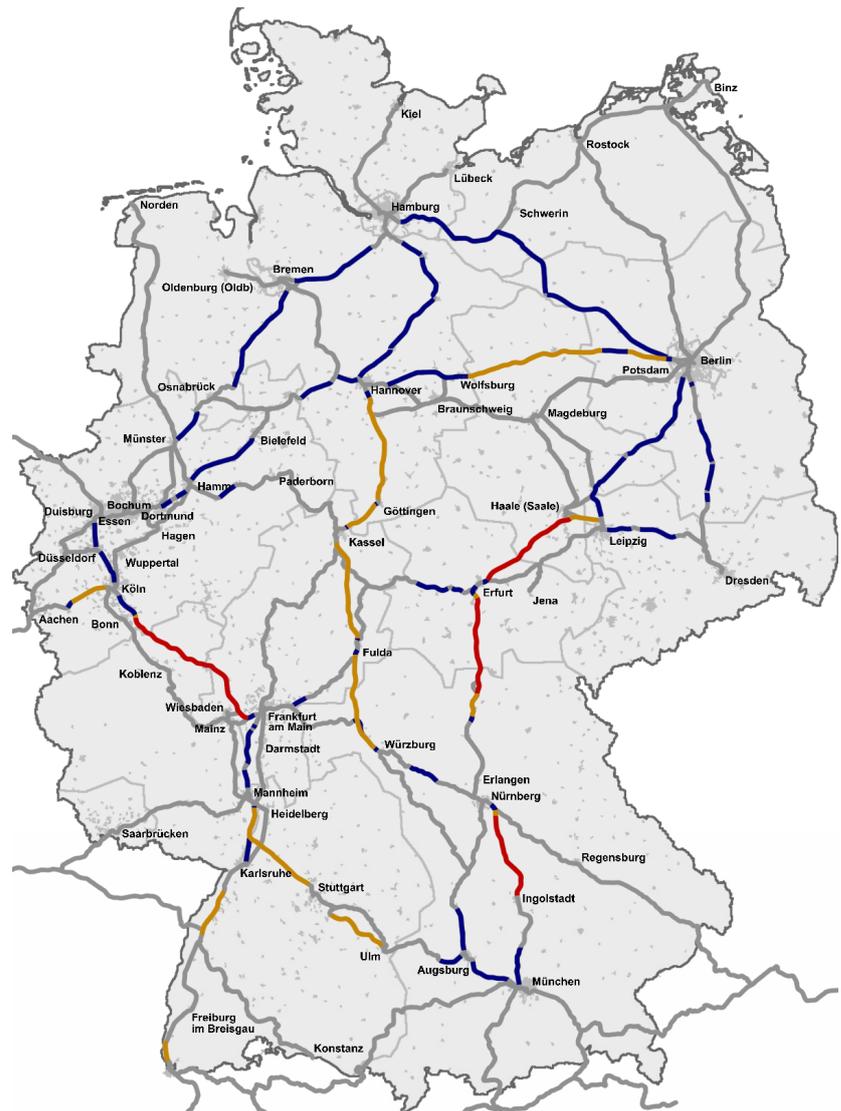


Germany's high-speed rail network

- Red:** High-speed rail with speeds up to 300 km/h
- Yellow:** High-speed rail with speeds of 250 km/h or more
- Blue:** Speeds of 200 km/h or more
- Grey:** Standard rail line, sometimes upgraded to allow speeds up to 160 km/h

Germany also has an extensive railway network. The German long-distance and regional rail network operated by Deutsche Bahn Netz (DB Netz) comprises a network of 33,400 kilometres (standard track gauge of 1.435 metres) of which 19,800 kilometres are electrified.

High-speed rail in Germany is operated on new and modernised lines, which reached a combined length of around 1,300 kilometres following the entry into service of the Stuttgart-Ulm high-speed line in 2022. To speed up traffic, high-speed rail links have so far been built between Cologne and Frankfurt, Nuremberg and Munich, as well as between Berlin and Hamburg. This network allows specially designed trains to travel at speeds of 250 kilometres or more per hour.



The German federal waterway network comprises 23,000 km of sea waterways and 7,300 km of inland waterways. The inland infrastructure at seaports, as well as waterways providing access to seaports and the Kiel Canal, are all part of a network that is navigable by seagoing vessels. Inland waterways consist of free-flowing rivers (the Rhine, the Elbe), controlled-flow rivers (the Moselle, the Main, the Neckar) and canals (the entire network of canals in western Germany, the Mittelland Canal, the Main-Danube Canal).

The German river network is one of the most developed in Europe. Duisburg, located in the northwestern part of Germany, on the Rhine, is the largest inland port in Europe and one of the largest inland ports in the world.

In 2019, the 12 largest German seaports on the North Sea and the 11 seaports on the Baltic Sea coast handled more than 300 million tonnes of goods, up 1.7% compared to 2018.

Main German ports (red: North Sea, blue: Baltic Sea)



About 250 inland ports handle an additional 250 million tonnes of goods per year.

Germany also has an extensive national and international transport system, with major hubs such as Frankfurt, Munich and Berlin. The airports of Düsseldorf, Cologne/Bonn, Hamburg, and Hanover provide mainly point-to-point flight connections. Meanwhile, some airports, such as Leipzig/Halle and Cologne/Bonn, specialise in freight operations.

For the most part, German airports are private businesses, but some local and regional authorities have retained a stake. The federal government has significantly reduced its shareholding and currently holds only a small stake in Berlin, Munich, and Cologne/Bonn airports.

Transport Infrastructures of Germany

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Length of national routes	230,782 km	230,702 km	230,517 km	230,377 km	230,147 km	230,082 km	229,970 km	229,903 km	229,826 km	229,776 km	229,721 km
of which highways	12,819 km	12,845 km	12,879 km	12,917 km	12,949 km	12,993 km	12,996 km	13,009 km	13,141 km	13,183 km	13,192 km
Length of rail network	37,669 km	37,846 km	37,941 km	37,860 km	37,775 km	38,466 km	38,623 km	38,594 km	38,416 km	38,394 km	38,394 km
of which high-speed network	871 km	994 km	994 km	1,101 km	1,104 km	1,104 km	1,104 km				
of which electrified	2,163 km										
Length of inland natural waterways	5,565 km										

Source : Eurostat

ROAD FREIGHT TRANSPORT OPERATORS

Institutional stakeholders

At the federal level

The federal government plays a significant role in German transport policy, particularly regarding Berlin. Transport issues require a considerable degree of coordination between the different tiers of government under the German federal system, particularly between the Federal State authorities (Bund) and the various Länder. The Bund is more involved in defining the overall strategic framework, in conjunction with the Länder and all the key stakeholders (professional organisations, trade unions, user associations, political parties, etc.), for the development of the German economy: for example, transport infrastructure (the Bundesverkehrswegeplan, BVWP) or the federal infrastructure development plan. These development projects include federal highways, national and high-speed railways (by DB Netz, wholly owned subsidiary of the Deutsche Bahn holding company, which is in turn wholly-owned by the Federal State) and waterways.

The Bund also sets out a long-term strategy for the development of the German economy as it moves towards becoming an open, increasingly globalised economy. This strategy is laid out in the German Logistics Masterplan. The aim of the Federal State is to make Germany the world leader in logistics.

At the Länder level

The Länder are more involved in the delivery and the regional and local planning of major infrastructure projects that have been jointly agreed upon by the Bund and the Länder. Regional land-use and local development issues are managed at Länder and municipal level. Funding is provided by the federal government.

*BAG, Federal Agency for Road Freight Transport*²

The Federal Agency for Road Freight Transport (BAG, located in Cologne) is responsible for inspections and violations, market studies, road safety issues and supervision of the HGV toll system (Maut). It plays a key role in road haulage in Germany.

Other actors and incentive programmes specific to the sector

- Customs, tax authorities, labour authorities (Gewerbeaufsichtsamt), vehicle inspection (TÜV).

² https://www.bag.bund.de/DE/Home/home_node.html

- The Länder are responsible for policing. The Federal Police (Bundespolizei), formerly the Border Police (BGS), was created to police the country's borders.
- In addition, health and veterinary authorities are involved (in terms of food and animal health respectively).

Professional RFT organisations

BGL³ (Bundesverband Güterkraftverkehr Logistik und Entsorgung)

The BGL is the largest professional organisation in the German transport and logistics sector. Its federal headquarters are in Frankfurt. It has a delegation in each federal State, enabling it to work closely with companies. It also participates in policy debates and defends the interests of its members.

Each year, it publishes a report, usually in conjunction with its general meeting in October, on the current state of road haulage in Germany and Europe. This report includes statistics (an overview of the industry, emissions, taxation, traffic, accident statistics, international transport) and a macro-economic forecast for the Eurozone and Europe's main trading partners.

The BGL is very active at European level, assisting the European Parliament and the European Commission in their efforts to improve road transport.

DLSV

The DLSV⁴ is more focused on protecting the interests of large transport and logistics companies. It is made up of 16 federal representations, representing 3,000 companies with almost 580,000 employees. These companies account for 90% of the industry's revenue, i.e., around 94 € billion. The DLSV also includes other more specialised industry associations, such as the logistics and automotive sectors. It is also an influential member of the IRU. It is also extremely active in terms of training and recruitment. In one of its annual reports, the DLSV has pointed to a shortage of nearly 45,000 drivers, a figure that is expected to rise. It provides professionals with a wide range of statistics.

³ <https://www.bgl-ev.de/web/home/index.htm>

⁴ <https://www.dslv.org/>

Trade union organisations

United Services Trade Union (VER.DI) – Transport Branch

Ver.di⁵ is the largest employee union in Germany. It has members in various business sectors, including transport. Ver.di is an acronym for Vereinte Dienstleistungsgewerkschaft (United Services Trade Union). It has members from almost 1,000 professional sectors and is divided into 13 branches, which are organised on a largely autonomous basis. Ver.di has approximately 2 million members.

Its remit is as follows:

- Ensuring compliance with labour standards.
- Negotiating sectoral collective agreements.
- Advising employee representative committees.

THE GERMAN RFT SECTOR IN 2021 – KEY DATA

Structure of the German RFT sector in 2021

Structure of the German RFT sector in 2021

2021	Goods transported	Tonne-kilometers achieved		Average distance	Vehicle.kilometres achieved
	thousand tonnes	million t.km	%	km	million of vehicle.km
TOTAL	3,107,981	307,272	100.0%	99	22,972
Domestic transport	2,996,795	272,000	88.5%	91	20,702
International transport	111,186	35,272	11.5%	317	2,270
<i>International transport of goods loaded in Germany</i>	58,619	18,290	6.0%	312	1,165
<i>International transport of goods unloaded in Germany</i>	38,280	12,990	4.2%	339	835
<i>Cross-trade</i>	5,625	2,747	0.9%	488	175
<i>Cabotage</i>	8,662	1,245	0.4%	144	95

Source : Eurostat

The German RFT sector is the second largest in Europe with more than 307,000 tonne-kilometres (t.km) transported in 2021. The sector is largely focused on the German domestic market, which accounts for 88.5% of its total activity. International trade, which accounts for the remaining 11.5%, is almost exclusively medium-distance bilateral business (around 300

⁵ <https://www.verdi.de/>

km on average). The difference between the number of tonnes loaded and unloaded in Germany reflects the export-oriented character of the German economy, but this also creates an imbalance for the RFT sector. International activity between third countries and cabotage represent not much more than a sideline.

Evolution of the German RFT sector

Evolution of the German RFT sector in million tonne-kilometres

In million t-km	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	AAGR*
TOTAL	323,833	307,009	305,744	310,142	314,816	315,774	313,149	316,772	311,875	304,613	307,272	-0.52%
Domestic transport	265,025	254,499	256,721	263,032	269,650	271,679	271,666	276,151	274,037	269,928	272,000	0.26%
International transport	58,807	52,510	49,022	47,110	45,166	44,095	41,483	40,621	37,838	34,685	35,272	-4.98%

*Average annual growth rate

Source : Eurostat

The domestic activity of the German RFT sector has remained virtually unchanged for some ten years, with a CAGR of 0.26% over the period 2011-2021. Its international business is declining steadily at an average rate of -5% per year. On balance, the German flag has lost market share, particularly to its eastern neighbours, and is withdrawing into its domestic market. The situation is similar to that observed in France in the first decade of the 2000s.

Cabotage

Cabotage under German flag in the 3 main "cabotaged" countries

In million tonne-kilometres	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	AAGR*
Cabotage under German flag	2,028	1,764	1,789	1,775	1,792	1,614	1,660	1,532	1,654	1,306	1,245	-4.76%
<i>in France</i>	540	447	479	438	453	415	394	389	459	316	323	-5.01%
<i>in Italy</i>	386	322	368	383	406	287	304	252	216	208	143	-9.45%
<i>in the Netherlands</i>	124	121	94	124	132	169	113	163	167	189	180	3.80%
Share of cabotage in German transport %	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.4	0.4	-

*AAGR : average annual growth rate

Source: Eurostat

Similar to its international activity, cabotage carried out by the German sector has also been in decline for 10 years, at an average rate of -4.76% per year. More specifically, German cabotage on French soil reflects this overall rate of decline, while German cabotage in Italy has fallen even more sharply. Meanwhile, German cabotage in the Netherlands increased over the same period. Nevertheless, these figures are subject to caution, since cabotage now accounts for only 0.4% of total activity for the German RFT sector.

Cabotage in Germany

In million tonne-kilometres	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	AAGR*
Cabotage in Germany	6,717	8,338	9,976	12,158	12,449	16,185	20,378	19,147	22,944	25,646	n/a	16.05%
Penetration rate of cabotage*	2,47%	3,17%	3,74%	4,42%	4,41%	5,62%	6,98%	6,48%	7,73%	8,68%	n/a	14.97%
Market share cabotage**	2,96%	3,77%	4,42%	5,21%	5,14%	6,50%	8,00%	7,43%	8,82%	9,93%	n/a	14.40%

AAGR : Average annual growth rate

Source : Eurostat

*cabotage foreign flag / (total domestic transport + cabotage under foreign flag)

**cabotage foreign flag / (domestic transport for hire and reward + cabotage under foreign flag)

Cabotage in Germany has been growing steadily, at an average annual growth rate of 16.05% over the last ten years. In 2020, it accounted for almost 10% of total commercial road haulage in Germany. The main cabotage providers active in Germany are Polish and Lithuanian.

RFT companies

According to the 2020 BAG survey, which is conducted out every 5 years, there are 46,902 “commercial road transport” companies operating in Germany, an increase of 4.1% compared to October 2015. The survey reports that 652,557 people are employed in the sector. The number of motor vehicles (vans and tractor units) stands at 395,428, while the total number of trailers and semi-trailers is 318,405.

The scope of the BAG survey is broader than that of the Eurostat survey. For the sake of comparability with other international studies, the data provided by the CNR below are those obtained from Eurostat.

RFT* Business Statistics in Germany (Latest available data in 2020)

	2020
Number of enterprises	34,142
Number of persons employed	412,235
Number of employees	377,892
Net sales	45,844,400 k€
Costs	
Total amount of purchased goods and services	25,943,200 k€
of which merchandise	9,296,500 k€
of which materials, supplies and intermediate goods	376,300 k€
Personnal expenses	12,111,000 k€
of which wages and salaries	9,828,500 k€
of which social security costs	2,282,500 k€
Gross operating profit	7,492,600 k€

* RFT companies as in European Nomenclature NACE Rev2 - Classe H4941

Source : Eurostat

Vehicle fleet

There is little data available on RFT vehicles in Germany, the only information available being that supplied by the 2020 BAG survey and Eurostat. According to this data, there were almost 218,500 tractor units and 370,500 semi-trailers in the country in 2020. The number of 40-tonne semi-trailer trucks per company is extremely small (between 6 and 7), a figure that is nevertheless borne out by what was reported to us in the course of our interviews.

Vehicle Statistics in Germany							
		2015	2016	2017	2018	2019	2020
Road tractors	Total	194,386	201,984	210,941	218,454	219,149	218,469
	Less than 2 years	67,528	70,331	70,785	72,389	72,657	61,439
	2 to 5 years	66,742	68,110	75,382	80,500	80,564	85,575
	5 to 10 years	45,657	46,419	45,354	44,602	46,569	52,186
	10 to 20 years	12,481	15,055	17,194	18,489	16,663	16,463
	More than 20 years	1,978	2,069	2,226	2,474	2,696	2,806
Lorries > 3.5 tonnes	Total	2 275,762	2 383,394	2 500,520	2 616,118	2 743,525	2 880,870
	Less than 2 years	n/a	n/a	n/a	n/a	n/a	n/a
	2 to 5 years	n/a	n/a	n/a	n/a	n/a	n/a
	5 to 10 years	n/a	n/a	n/a	n/a	n/a	n/a
	10 to 20 years	n/a	n/a	n/a	n/a	n/a	n/a
	More than 20 years	n/a	n/a	n/a	n/a	n/a	n/a
Lorries <= 3.5 tonnes	Total	524,974	528,449	529,728	531,849	531,309	528,196
	Less than 2 years	n/a	n/a	n/a	n/a	n/a	n/a
	2 to 5 years	n/a	n/a	n/a	n/a	n/a	n/a
	5 to 10 years	n/a	n/a	n/a	n/a	n/a	n/a
	10 to 20 years	n/a	n/a	n/a	n/a	n/a	n/a
	More than 20 years	n/a	n/a	n/a	n/a	n/a	n/a
Semi-trailers	Total	310,895	323,431	337,085	353,584	365,396	370,499

n/a : not available

Source : Eurostat

1.3. FISCAL AND LABOUR REGULATIONS APPLICABLE TO ROAD FREIGHT TRANSPORT IN GERMANY

TYPES OF COMPANIES

Types of companies in Germany and their main characteristics	
Partnerships	
Limited partnership (Kommanditgesellschaft - KG)	
Number of partners and associates: minimum one main partner with unlimited liability and several special partners (sponsors) who do not represent the company	
Minimum and/or maximum capital: no limitation	
Partnership (Offene Handelsgesellschaft - OHG)	
Number of partners and associates: several partners with unlimited liability, several special partners whose liability is restricted to their fixed contributions to the partnership.	
Minimum and/or maximum capital: no limitation	
Capital companies	
Limited liability company (Gesellschaft mit beschränkter Haftung - GmbH)	
Number of partners and associates: at least one person	
Minimum and/or maximum capital: 25,000 € minimum	
Liability of shareholders: the liability of shareholders is limited to the amount of the contributions	
Joint stock company (Aktiengesellschaft - AG)	
Number of partners and associates: at least 2 partners/shareholders, dual management form with board of directors and supervisory board, very costly	
Minimum and/or maximum capital: 50,000 € minimum	
Liability of shareholders: the liability of shareholders is limited to the amount of the contributions	
Limited partnership (Unternehmergesellschaft - UG)	
Number of partners and associates: one or several partners	
Minimum and/or maximum capital: no limitation (1€), obligation of inject 25% of the profit until 25,000 €	
Liability of shareholders: the liability of partners is restricted to their fixed contributions	
Limited joint stock partnership (Kommanditgesellschaft auf Aktien - KGaA) - hybrid form	
Number of partners and associates: minimum one main partner and several shareholders	
Minimum and/or maximum capital: 50,000 € minimum	
Liability of shareholders: main partner has unlimited liability, the liability stockholders is restricted to their fixed contributions to the partnership.	

Source : CCI France Allemagne

ROAD FREIGHT TRANSPORT TAXES

Corporation tax – Körperschaftsteuer and business tax

Corporation income tax applies to all corporate legal entities, which are required to pay this tax on their profits. In addition to this tax, a solidarity surcharge (CS) of 5.5%, initially intended to finance the reconstruction of East Germany, is now levied throughout Germany. Thus, the current real corporate tax rate is 15.825%.

A further business tax is also levied on corporate profits. The two taxes differ in that they are collected by different entities. While corporation tax is collected by the federal government, the business tax goes to municipalities. Unlike the French CVAE, it applies only to companies whose business profits are subject to industrial and commercial tax law; thus it is not applicable to the self-employed and financial management activities.

The rate of the business tax varies from one municipality to another. The effective rate is obtained by multiplying the applicable base rate (410% in Berlin compared with 490% in Munich, for example) by the tax coefficient of 3.5%, which has remained unchanged since 2008. For example, in the case of Berlin the effective rate is 14.35%, while in Munich it is 17.15%.

In Germany, when discussing corporation tax, people often talk in terms of the "cumulative tax burden", i.e. the sum of the three taxes mentioned above. While in some municipalities the tax burden has fallen slightly below 30%, it is often between 30.18% (Berlin) and 32.98% (Munich) in most large cities and their conurbations.

VAT

The standard VAT rate in Germany is 19% and it applies to the majority of goods and services. A reduced rate of 7% applies to certain products and services, such as water, the majority of food products, books and newspapers, equipment for the disabled, cultural products and leisure activities.

Road tax on motor vehicles (Kraftsteuer – Kfz)⁶

The tax applies only to motor vehicles. The amount of the tax is calculated on the basis of the vehicle's emission class and total weight. According to CNR calculations, the tax for a typical Euro VI class tractor amounts to 556€/year.

⁶ https://www.bundesfinanzministerium.de/Web/DE/Service/Apps_Rechner/KfzRechner/KfzRechner.html

However, the law makes an exception for semi-trailers. These are taxed at a fixed rate of 373.24 €/year, which brings the annual tax to 929€/year for a typical 40-tonne Euro VI semi-trailer truck.

Tolls – Maut

In Germany, all HGVs with a GVWR in excess of 7.5 tonnes are required to pay tolls, calculated according to the distance travelled, to Toll Collect for the use of motorways and most national roads.

Toll rates are determined based on the distance travelled, the category of the road and a per-kilometre charge, which includes infrastructure and air pollution costs generated by the vehicle. Concerning infrastructure costs, a distinction is made between two-axle, three-axle, four-axle and five-axle HGVs.

Regarding air pollution, the vehicles are classified according to the type and age of the engine. Thus, the most recent heavy goods vehicles – belonging to the Euro6/A pollution category – are not subject to any air pollution charges. They only pay the infrastructure component of the per-kilometre charge.

As of 1 July 2018, motorway tolls have been extended to 51,000 km of roads, i.e. all federal roads (motorways, expressways and dual carriageways), compared with 36,000 km previously.

Certain sections of motorway have been excluded from compulsory tolls under article 1, paragraph 3, sections 1 to 3, of the Law Relating to Tolls on the Federal Road and Motorway Network (BFStrMG):

- the section of the A6 motorway between the Franco-German border and the Sarrebruck-Fechingen junction in both directions,
- the section of the A5 motorway between the German-Swiss border and the Franco-German border, and the Müllheim/Neuenburg junction, in both directions,
- motorway sections whose use is subject to a toll pursuant to Article 2 of the Law on the Private Financing of the Construction of Trunk Roads of 30 August 1994 (BGBl. I, p. 2243) in its currently applicable version.

On 28 October 2020, the European Court of Justice handed down a ruling in which it found that Germany had inflated the infrastructure costs of its road network subject to the LKW-Maut toll, ruling that "police operations are the responsibility of the State in connection with the exercise of its public powers". Thus, "the costs related to police activities on the network cannot therefore be deemed to be linked to the State's activity as operator of the road network". Hauliers have thus been granted the right to claim reimbursement from the BAG of a portion of tolls paid for the period from 28 October 2020 to 30 September 2021. The refund is between 3.8% and 6% of the toll paid, depending on the road network used and the class of vehicle involved. New rates were introduced on 1 October 2021.

Tolls - Germany from 01.10.2021 until 31.12.2022					
Emission class	Weight and number of axles	Cost of infrastructure	Air Pollution contribution	Noise pollution contribution	Total
EURO 6	7.5 tons until 12 tons	0.065 €	0.012 €	0.002 €	0.079 €
	12 tons until 18 tons	0.112 €	0.012 €	0.002 €	0.126 €
	over 18 tons, 3 axles	0.155 €	0.012 €	0.002 €	0.169 €
	over 18 tons, 4 or more axles	0.169 €	0.012 €	0.002 €	0.183 €
EURO 5 / EEV	7.5 tons until 12 tons	0.065 €	0.023 €	0.002 €	0.090 €
	12 tons until 18 tons	0.112 €	0.023 €	0.002 €	0.137 €
	over 18 tons, 3 axles	0.155 €	0.023 €	0.002 €	0.180 €
	over 18 tons, 4 or more axles	0.169 €	0.023 €	0.002 €	0.194 €
EURO 4 or EURO 3 with particle filter PMK 2	7.5 tons until 12 tons	0.065 €	0.034 €	0.002 €	0.101 €
	12 tons until 18 tons	0.112 €	0.034 €	0.002 €	0.148 €
	over 18 tons, 3 axles	0.155 €	0.034 €	0.002 €	0.191 €
	over 18 tons, 4 or more axles	0.169 €	0.034 €	0.002 €	0.205 €
EURO 3 or EURO 2 with particle filter PMK 1	7.5 tons until 12 tons	0.065 €	0.067 €	0.002 €	0.134 €
	12 tons until 18 tons	0.112 €	0.067 €	0.002 €	0.181 €
	over 18 tons, 3 axles	0.155 €	0.067 €	0.002 €	0.224 €
	over 18 tons, 4 or more axles	0.169 €	0.067 €	0.002 €	0.238 €
EURO 2	7.5 tons until 12 tons	0.065 €	0.078 €	0.002 €	0.145 €
	12 tons until 18 tons	0.112 €	0.078 €	0.002 €	0.192 €
	over 18 tons, 3 axles	0.155 €	0.078 €	0.002 €	0.235 €
	over 18 tons, 4 or more axles	0.169 €	0.078 €	0.002 €	0.249 €
EURO 1 and 0	7.5 tons until 12 tons	0.065 €	0.089 €	0.002 €	0.156 €
	12 tons until 18 tons	0.112 €	0.089 €	0.002 €	0.203 €
	over 18 tons, 3 axles	0.155 €	0.089 €	0.002 €	0.246 €
	over 18 tons, 4 or more axles	0.169 €	0.089 €	0.002 €	0.260 €

Source : Toll Collect

Excise duty on commercial diesel fuel

In accordance with Directive 92/12/EC and 2008/118/EC, Germany has instituted an excise duty system. Excise duties are indirect taxes collected by customs on certain consumer products, including petroleum products, tobacco and alcohol.

Since 31 October 2018, the excise duty on diesel has been 47.04 €/hl.

There is no partial rebate system for excise duties in Germany.

In response to the energy crisis in 2022, the federal government decided to reduce excise duty on diesel by 0.14 €/litre between 1 June 2022 and 31 August 2022.

LABOUR REGULATIONS APPLICABLE TO ROAD FREIGHT TRANSPORT

Trial periods

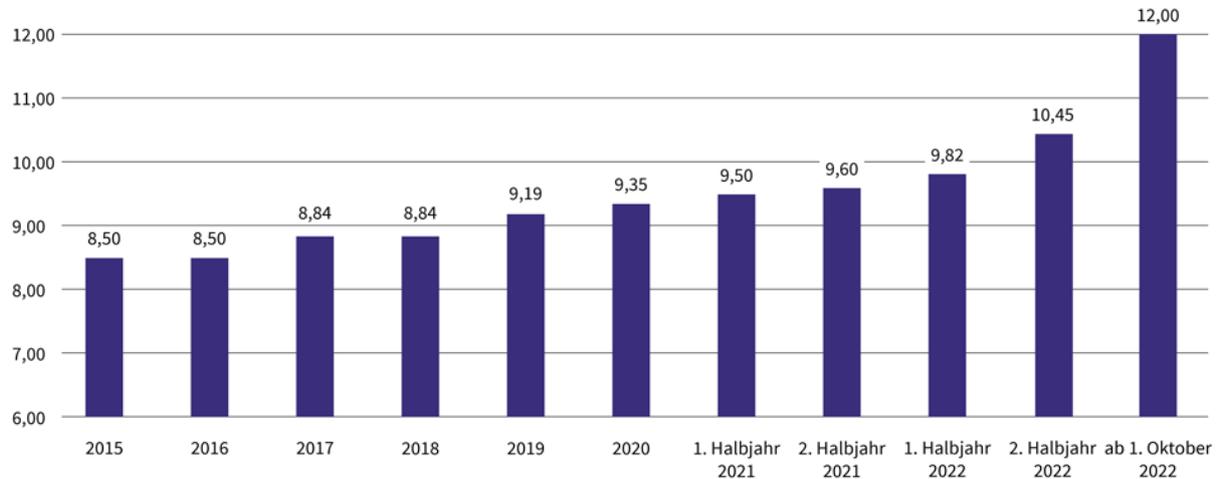
Trial periods are not a requirement in Germany, but they are very common, as they are often provided for in collective agreements. However, they must be stipulated in the terms of the employment contract.

The duration of these periods must also be specified in the employment contract or in the collective agreement applicable to the company. There is no maximum duration, but as a general rule trial periods are between 1 and 6 months in length. During such trial periods, both the employer and the employee are free to withdraw from the employment contract, provided they give two weeks' notice.

Pay rates

On 1 January 2015, a minimum wage of 8.50 € gross per hour was introduced in Germany. In 2018, the German minimum wage stood at 8.84 € gross per hour. It was raised several times in 2022, reaching 9.82 € at the beginning of the year, 10.45 € by 1 July 2022, before being pegged at 12.00 € on 1 October 2022, a rate that was expected to last until the end of 2023.

Gesetzlicher Mindestlohn in Deutschland 2015–2022 (in Euro pro Stunde)



Deutscher Gewerkschaftsbund (DGB)

Given that the statutory weekly working is limited to 40 hours, the German minimum monthly wage thus currently stands at 2,080 € (173.33 hours per month).

In the RFT sector, collective agreements and company contracts are used to supplement statutory provisions. It is important to note that branch agreements are permitted and tend to offer better terms than those set out in the statutory provisions. The opposite is not possible. Thus, the salaries provided for in certain German collective agreements that have not been regularly updated are no longer valid.

Depending on the Länder, different collective agreements apply in the transport sector, but such agreements are not mandatory. The collective agreement in force in the Saarland is included below. This is one of the most recent agreements. The Saarland is also one of the most industrial and blue-collar regions in western Germany. Several interviews with German hauliers were carried out in this region.

Extract from the collective agreement in Saarland Version dated 01.11.2020, update in march 2022			
Amount of hourly wage		from 01.04.2021	from 01.03.2022
D	Driving staff with less than 24 hours of presence in a week :		
1	Vehicle with total weight until 7.5 tons (included)		
	a) until 4 years of seniority	13.01 €/gross	13.27 €/gross
	b) 4 years of seniority or more	13.43 €/gross	13.70 €/gross
2	Vehicle with total weight over 7.5 tons		
	a) until 4 years of seniority	13.71 €/gross	13.98 €/gross
	b) 4 years of seniority or more	14.05 €/gross	14.33 €/gross
E	Driving staff with more than 24 hours of presence in a week :		
1	a) until 4 years of seniority	13.42 €/gross	13.69 €/gross
2	b) 4 years of seniority or more	13.69 €/gross	13.96 €/gross
Working time for the driving staff with less than 24 hours of presence in a week		45 hours per week – 196 hours per month	
Working time for the driving staff with more than 24 hours of presence in a week		48 hours per week – 209 hours per month	
Paid holidays :		basis - 26 days of paid holidays	
after seniority of :			
- 3 years		27 days of paid holidays	
- 6 years		28 days of paid holidays	
- 9 years and more		29 days of paid holidays	
Holiday allowance		20.00 €/gross per day of paid holidays	
- Trainees		10.00 €/gross per day of paid holidays	

Source : BGL Saarland

Paid leave and other particularities

In Germany, the minimum duration of paid leave is set at 20 working days if the employee works 5 days per week, and rises to 24 working days if they work 6 days per week. These provisions are provided for in the law on paid leave (Bundesurlaubgesetz, BU rIG).

Several collective agreements also entitle employees to more paid leave, which in some cases can exceed 30 days, for example in Bavaria. In addition to the monthly salary, a holiday allowance is often granted to employees under the terms of applicable collective and company agreements.

There are, in addition, 9 public holidays on average, but their number varies according to the Länder.

Travel allowances (Spesen)⁷

The Federal Ministry of Finance sets these flat rate allowances at regular intervals. They are required to be universally applicable to all employees in all sectors of the economy. Basically, there are two types of flat-rate expense allowance: a larger one and a smaller one. An employee is entitled to a small allowance when their trip exceeds 8 hours in one day, but when it does not take a full day. The smaller allowance will often apply to the beginning or end of an extended trip lasting several days. The larger allowance is triggered as soon as the employee's trip extends beyond the 24-hour mark.

In the case of domestic journeys, German drivers receive a travel allowance of 28€ per day when they are away for at least 24 hours and 14 € per day when they are away for more than 8 hours.

In the case of international journeys, the amount of travel allowances depends on the country of destination and is often specified in euros. In the case of European countries, these allowances range between 22 € and 58 € per day.

Travel allowances are not subject to tax or social security contributions. The amounts of travel allowances are listed in the table below.

⁷ <https://lkw-fahrer-gesucht.com/spesen-lkw-fahrer.html>

Germany - Amount of daily allowances according to visited country/city		
Valid since 1st of January 2020		
Country/City	Amount of allowance for	
	at least 8 hours	at least 24 hours
Albania	20.00 €	29.00 €
Andorra	23.00 €	34.00 €
Austria	27.00 €	40.00 €
Belgium	28.00 €	42.00 €
Bosnia and Herzegovina	16.00 €	23.00 €
Bulgaria	15.00 €	22.00 €
Cyprus	30.00 €	45.00 €
Croatia	24.00 €	35.00 €
Denmark	39.00 €	58.00 €
Spain (Barcelona)	23.00 €	34.00 €
Spain (Canary Islands)	27.00 €	40.00 €
Spain (Madrid)	27.00 €	40.00 €
Spain (Palma de Mallorca)	24.00 €	35.00 €
Spain (others)	23.00 €	34.00 €
Estonia	20.00 €	29.00 €
Finland	33.00 €	50.00 €
France (Lyon)	36.00 €	53.00 €
France (Marseille)	31.00 €	46.00 €
France (Paris)	39.00 €	58.00 €
France (departements 92-94)	39.00 €	58.00 €
France (Strasbourg)	34.00 €	51.00 €
France (others)	29.00 €	44.00 €
Greece	24.00 €	36.00 €
Hungary	15.00 €	22.00 €
Ireland	29.00 €	44.00 €
Italy (Milano)	30.00 €	45.00 €
Italy (Rome)	27.00 €	40.00 €
Italy (others)	27.00 €	40.00 €
Latvia	24.00 €	35.00 €
Liechtenstein	36.00 €	53.00 €
Lithuania	17.00 €	26.00 €
Luxembourg	32.00 €	47.00 €
North Macedonia	20.00 €	29.00 €
Montenegro	20.00 €	29.00 €
Norway	53.00 €	80.00 €
The Netherlands	32.00 €	47.00 €
Poland (Wroclaw)	22.00 €	33.00 €
Poland (Gdansk)	20.00 €	30.00 €
Poland (Krakow)	18.00 €	27.00 €
Poland (Warsaw)	20.00 €	29.00 €
Poland (others)	20.00 €	29.00 €
Portugal	24.00 €	36.00 €
Romania (Bucarest)	21.00 €	32.00 €
Romania (others)	17.00 €	26.00 €
United Kingdom (London)	41.00 €	62.00 €
United Kingdom (others)	30.00 €	45.00 €
Slovakia	16.00 €	24.00 €
Slovenia	22.00 €	33.00 €
Sweden	33.00 €	50.00 €
Switzerland (Geneva)	43.00 €	64.00 €
Switzerland (others)	41.00 €	62.00 €
Serbia	13.00 €	20.00 €
Czechia	24.00 €	35.00 €
Turkey (Istanbul)	17.00 €	26.00 €
Turkey (Izmir)	20.00 €	29.00 €
Turkey (others)	12.00 €	17.00 €
Ukraine	17.00 €	26.00 €

Source : BGL

Lorry driver allowances doubled in 2022⁸

In 2022, if an employer decided to double the daily allowances paid to lorry drivers, new tax rules offered them the choice of opting for a flat-rate tax of 25% on the portion in excess of the usual limit. The aim of the scheme is to provide partial tax exemption for increases in lorry drivers' pay, without increasing their salary at times when the labour market is tight, and to revert to standard daily allowances when the labour market returns to normal.

Accommodation allowance of 8 € for commercial drivers

Since 1 January 2020, companies have been authorised to pay their drivers a net accommodation allowance of 8 € in addition to travel allowances. These additional allowances, which do not have to be supported by receipts, are intended to cover the cost of using the showers and toilets, as well as the cost of cleaning the cab (bed linen). The accommodation allowance may only be granted for nights spent sleeping in the vehicle's sleeping compartment during multi-day journeys.

Social security contributions

Social Contributions in Germany in 2022

Social contributions applicable to driving staff in 2022	Employer	Employee	Tax Base Ceiling (Gross yearly salary in €)	
			Old Länder	New Länder
Health insurance	7.300%	7.300%	58,050 €	58,050 €
Additional health insurance - medium observed rate		1.600%		
Pension contribution	1.525%	1.525%	58,050 €	58,050 €
Additional contribution for employees without children		0.035%		
Old-age, Invalidity, Death Pensions	9.300%	9.300%	84,600 €	81,000 €
Unemployment	1.200%	1.200%	84,600 €	81,000 €
Accidents at work (rate observed in RFT sector)	1.000%	0.000%		
Total	20.325%	20.960%		

Source : svp.com

Automatic enrolment in the statutory health insurance scheme does not apply to employees whose annual pay exceeds 64,350 € (58,050 € for employees who belonged to a private insurance scheme on 31 December 2002). These individuals must take out health insurance with a private insurer if they do not opt to be covered under the state-run health insurance scheme.

A slightly reduced contribution rate (employer's share + 14% of salary, instead of 14.6%) applies to people who are insured but are not entitled to daily allowances.

⁸ https://www.gesetze-im-internet.de/estg/_40.html

Health insurance providers are entitled to apply an additional individual contribution (*Zusatzbeitrag*). These rates vary and a rough guide can be found on the website of the National Association of Health Insurance Providers. In 2022, the average additional contribution stood at 1.3%. Employers pay half of this contribution on behalf of their employees.

An additional long-term care insurance contribution of 0.35% is payable by policyholders without children aged 23 or over (with the exception of those born before 1940). In the State of Saxony, employees pay 2.025% and employers 1.025%.

Personal income tax

Breakdown of income tax

Personal income tax in Germany consists of:

- Income tax (*Einkommensteuer*), the rate of which varies depending on the amount of taxable income;
- The solidarity surcharge (*Solidaritätszuschlag*), which represents 5.5% of income tax. Since 2021, the solidarity surcharge has been levied only when income tax is higher than 16,956 €, in the case of a single person (or equivalent), or higher than 33,912 € for a married couple (or equivalent).
- Ecclesiastical tax (*Kirchensteuer*) which, when applicable, represents between 8% and 9% of income tax depending on religious denomination.

Income tax for a single person - Germany 2022

Tax bracket	Taxable income	Tax rate
Tax bracket I	0 to 10,908 €	0.00%
Tax bracket II	10,909 € to 15,999 €	progressive, from 14.00% to 23.97%
Tax bracket III	16,000 € to 62,809 €	progressive, from 23.97% à 42.00%
Tax bracket IV	62,810 € to 277,825 €	fixed rate, 42.00%
Tax bracket V	277,826 € and more	fixed rate, 45.00%

Source : www.laure-klein.de

Tax bracket levels are doubled in the case of married (and equivalent) couples.

Bands II and III use progressive rates that depend on salary level. First, a coefficient equivalent to one ten-thousandth of taxable income after allowances is applied to the minimum rate applicable to the band in question in order to calculate a personalised tax rate.

Secondly, in order to calculate the amount deducted at source, the employer must estimate in advance the annual income tax that the employee would be required to pay for the tax year in question if they had no income other than their salary. This estimate is based on the tax

band (*Lohnsteuerklasse*) to which the employee belongs. Each tax band has its own "standard" tax formula, depending on the employee's personal circumstances.

There are 6 tax bands that depend on an employee's family circumstances:

- Band 1 (Steuerklasse I): Single, widowed, divorced or separated employees.
- Band 2 (Steuerklasse II): Single parents with at least one dependent child
- Band 3 (Steuerklasse III): Married (non-separated) couples, same-sex couples united by an official civil partnership under German law ("Lebenspartnerschaft").
- Band 4 (Steuerklasse IV): Married (non-separated) couples, same-sex couples united by an official civil partnership under German law ("Lebenspartnerschaft").
- Band 5 (Steuerklasse V): In cases where one spouse has requested to be registered in band 3, the other spouse is automatically registered in band 5.
- Band 6 (Steuerklasse VI): Employees engaged in several salaried activities (Class 6 applies as a rule to the second and any further activities).

In Germany, income tax and the solidarity surcharge are deducted on a monthly basis from salaries by the employer. This deduction is referred to as "*Lohnsteuer*" on payslips. Withholding tax is treated as a monthly income tax advance payment. An annual reconciliation is then calculated by the tax authorities and the employer's estimated tax is revised for the following year.

2. STUDY OF THE OPERATING CONDITIONS AND COSTS FOR A 40-TONNE GERMAN HGV OPERATING INTERNATIONALLY

This part of the study describes the economic and social conditions prevailing in 2021, at the time this updated study was conducted. In carrying out this study, the CNR has drawn on research focused primarily on the fiscal and social aspects of the RFT sector, as well as on previous CNR studies of the country and feedback from the experts with whom the CNR collaborates. These different sources provide an overview of the German RFT sector internationally and highlight the main developments observed since the last study. This research and process of dialogue are further backed up by interviews with German hauliers and lorry drivers.

All the figures eventually adopted by the CNR in order to construct the typical profile represent the best expert appraisal of this set of data sources.

2.1. OPERATING CONDITIONS AND COSTS FOR COMPANIES

This section is mainly based on face-to-face interviews with 22 German road freight transport companies involved in long-distance transport operations, mainly internationally. Among the companies visited, 21 were able to provide the information requested. Thus, the 21 companies selected for this study have the following characteristics:

	Number of tractors	Number of semi-trailers	Main markets	Number of drivers	Turnover
Company 1	110	150	Western Europe	117	57,000,000 €
Company 2	160	200	DE, AT, CH	150	109,000,000 €
Company 3	16	16	DE, AT, CZ	20	2,200,600 €
Company 4	39	42	DE, Benelux	46	7,800,000 €
Company 5	46	77	DE, NL	50	11,264,000 €
Company 6	4	3	DE, NL, LU	4	-
Company 7	37	50	DE, FR	34	8,250,000 €
Company 8	42	55	DE, Benelux	44	9,000,000 €
Company 9	14	26	DE, AT, HU	16	2,100,000 €
Company 10	63	59	Ports of Rot./Antwerp	66	-
Company 11	12	14	DE, IT	12	1,900,000 €
Company 12	21	26	DE, CH, AT	19	3,465,000 €
Company 13	52	68	DE, BE, FR, ES	59	11,840,000 €
Company 14	6	7	DE, CH, AT	6	1,000,000 €
Company 15	7	7	DK, SW	8	1,450,000 €
Company 16	102	133	DE, AT, CH, IT, FR, UK	114	21,000,000 €
Company 17	3	3	DE, Rotterdam	3	478,500 €
Company 18	28	41	DE, Benelux	34	-
Company 19	11	8	Scandinavia	14	2,310,700 €
Company 20	32	30	DE, FR, ES	35	5,330,500 €
Company 21	22	27	Scandinavia	25	3,450,000 €

The companies visited for this study are extremely diverse in terms of their size and structure. They all provide medium- and long-distance haulage services. Small companies are often subcontracted by companies who are themselves subcontractors of larger, usually German, companies.

To enable a comparison with the data from other CNR country studies, only companies conducting significant levels of international haulage have been selected.

The CNR is hereby reporting the results of these interviews, which have no statistical value. However, they do shed light on figures and information obtained elsewhere. Ultimately, the CNR uses figures based on expert opinion to establish the costs and operating conditions that pertain for a “typical” HGV operating internationally.

TRANSPORT EQUIPMENT – Use

In Germany, vehicles are rarely used on weekends. This is a direct consequence of the pay conditions enjoyed by drivers. The number of operating days varies between 230 and 252 depending on the region and the size of the company, with a clustering around 244 days. This figure is slightly higher than in 2018 (240 days).

The average annual mileage travelled by the vehicles operated by the hauliers we met with is between 92,000 km and 140,000 km. According to its calculations (which are consistent with driver mileage) and based on expert opinion, CNR has arrived at an estimated mileage figure of 131,800 km per year per vehicle, which is practically unchanged since the last study (130,000 km). In Germany, long-distance journeys are often entrusted to foreign companies, leaving German drivers to carry out medium-distance journeys and more regular business.

The length of time tractors are being kept is significantly higher than in 2018. This is due in particular to the Covid pandemic, during which companies received fewer orders or did not order new vehicles due to the uncertainty of the economic situation. Thus, the length of time tractors are being kept has increased from 5 to 6.5 years on average. In the case of semi-trailers, hauliers keep them for a period in excess of 10 years.

Standard vehicle purchasing practices in Germany have changed very little since the last study in 2018. When it comes to purchasing, companies tend to choose vehicles with the best optional features – ideally German brands, and often the most expensive ones on the market. Consequently, purchase prices are higher than elsewhere in Europe.

The tractor/semi-trailer ratio reported in the course of company surveys is 1.26, a significant increase from the figure of 1.19 reported in 2018.

TRANSPORT EQUIPMENT – Financing

As regards financing, 5-year leasing contracts are the norm. In the face of unpredictable economic conditions, which are stifling business, purchase options are being exercised more frequently than in 2018. The significant fall in interest rates in recent years seems to have had an impact on purchasing practices. Interest rates have rarely exceeded 1.4%, and the average for tractors stands at 1.3%.

As in 2018, manufacturers are offering attractive, all-inclusive contracts (tyres, maintenance, and even insurance in some cases) at approximately 2,200€ per month for a new tractor, including all optional extras.

While self-financed purchases are rare, commercial vehicle leasing is on the rise.

Road tractor mileage often exceeds 800,000 km by the end of the leasing period. Resale prices are therefore lower than in 2018. In 2021, resale prices stood at around 15% of the price of a new vehicle.

The price of a tractor unit with optional extras so beloved of German lorry drivers is around 107,000€. Semi-trailer sells for 26,200 €, on average.

FUEL

The average unit cost of fuel at the pump in 2021 (for the German RFT sector) was 1.1668 € per litre according to official figures published in the European Commission's Oil Bulletin. There is no partial rebate system for excise duties in Germany.

German companies source almost all (85%) of their fuel within the country, which includes both bulk purchases (60% of the total, at a discount of 4 euro cents) and fuel purchased at petrol stations (25%). Of the remainder, 10% is purchased in Luxembourg for financial reasons, and 5% in Italy. Companies operating in the Italian market or in southern Switzerland are the ones that buy their fuel in Italy.

Fuel consumption is monitored very closely by hauliers, who regard it as the most important consideration when it comes to managing their business on a day-to-day basis. Average consumption is estimated at 28.4 l/100 km and is highly dependent on the countries visited. For example, consumption drops below 28 litres per 100 km for most journeys in Germany, the Netherlands or Denmark, but can climb as high as 35 litres per 100 km in Switzerland or northern Italy.

Based on the fuel shopping basket calculated by the CNR (using information provided by companies), the price of a litre of fuel was 1.1356 €.

MAINTENANCE & REPAIRS

Based on the interviews conducted, vehicle maintenance and servicing is carried out by companies using a combination of in-house garages and external service providers. The annual cost arrived at in this survey is 9,100 €/year, i.e. a per-kilometre cost of approximately 0.07 €. This estimate for 2021 is up sharply compared to 2018: +16.7% in 3 years.

However, there are major variations when it comes to this cost item:

- In the case of large companies with their own garages, the annual cost of maintenance and repair is estimated at between 7,000 € and 7,800 €.

- In companies with no in-house garage, these costs rise to approximately 10,500€ per year per semi-trailer truck.

TYRES

The annual cost of tyres ranges widely, from 2,500 € to 4,850 €. This cost item varies greatly depending on the method use for purchasing vehicles (with or without a tyre contract), on mileage as well as on tyre changing and/or retreading policies.

According to the representatives of the companies we interviewed, the price of a new tyre on the German market can vary between 440 € and 660 €.

For the sake of consistency with previous studies, and in deference to expert opinion, the CNR's independent calculations indicate a figure of approximately 3,450 € per year per set, which represents a significant increase compared with 2018 (2,700 €). This is due to the fleet being replaced less frequently and to an increase in annual mileage. In addition, there has been an increase in the price of manufacturer tyre maintenance contracts, which are now provided at a per-kilometre cost of around 3 euro cents.

TOLLS

The German kilometre toll (the Maut) represents approximately 60% to 70% of toll costs for the German hauliers surveyed, even for those who carry out a significant amount of business abroad: i.e. an outlay of between 15,000 € and 16,000 € on German tolls. Toll costs also depend greatly on where carriers are based in Germany, as well as on the location of their main customers. As regards international business, specialists in the seaports market have a significant advantage thanks to the Eurovignette in the Netherlands, while the others suffer from high tolls in Austria, Switzerland and France.

According to CNR calculations, the toll costs for a typical company carrying out a range of haulage services internationally are in excess of 19,400 €.

INSURANCE

In 2018, the CNR reported that vehicle insurance rates varied widely and were highly dependent on company size. In 2021, it seems that insurance policies were frequently being renegotiated and that costs were holding steady or even falling slightly compared with 2018, in the case of the largest companies.

In any event, the German insurance market is highly competitive for customers with the best accident risk ratings. These companies consistently manage to keep the annual cost of this item below 2,000 €. Conversely, a new business can pay twice as much in the first few years of operation.

According to experts, the annual cost of insurance for a 40-tonne semi-trailer truck is estimated at 3,050 €.

AXLE TAX

Axle tax comes to 556 €/year for a tractor and 373 €/year for a semi-trailer, i.e. 929 €/year for a 40-tonne semi-trailer truck.

FIXED COSTS

The data collected from German companies do not allow exact fixed costs to be calculated. Based on expert opinion, they are estimated to amount to 9% of total costs.

2.2. EMPLOYMENT CONDITIONS AND DRIVER EMPLOYMENT COSTS

Employment conditions and driver pay in Germany were surveyed during two rounds of interviews: a first phase in companies with employers; and a second phase, involving face-to-face interviews with drivers in car parks and rest stops located at the German border. During this second phase, approximately twenty drivers, employees with German contracts, volunteered to be interviewed about their employment conditions and pay.

Based on an analysis of these sources and a review of the literature, the CNR has produced a typical profile (in terms of employment conditions and pay) of an RFT driver with a German contract, mostly working internationally.

EMPLOYMENT CONDITIONS

Permanent contracts are the most widespread form of employment contract in the sector. New drivers are hired directly on permanent contracts; in some cases, there is a trial period, which is rarely in excess of one month.

German drivers are entitled to a minimum of 4 weeks of paid leave, with drivers in the Saarland receiving 29 days and those in other Länder as many as 30 days. In fact, most of them say they have between 25 and 27 paid days off and that they take all their paid leave, generally a full month during the summer holidays and a few days at the end of the year.

According to information obtained during interviews with drivers, they work approximately 218 days per year (i.e. around 43 weeks a year) and drive between 10,000 km and 12,000 km per month, i.e. between 107,000 km and 130,000 km per year. According to its calculations (which are consistent with driver mileage) and based on expert opinion, the CNR has arrived at an estimated mileage figure of 120,500 km per year, per driver. Unlike in previous studies, the CNR no longer produces two distinct driver profiles for the different parts of the country, but only one. The gaps that existed between the eastern Länder and those in the west seem to have more or less disappeared, particularly in terms of salaries and driver employment conditions.

As far as the scheduling is concerned, in most cases the typical schedule of a German driver consists of short- and medium-distance trips. They return to base almost every weekend.

International transport involves relatively moderate distances in neighbouring countries. The average length of foreign trips reported is 2 to 3 days, once or twice a week, i.e. 3 nights spent outside Germany in most cases. German drivers most often drive in the Netherlands, Switzerland and, to a lesser extent, Belgium and France.

The average age of drivers is increasing sharply, due to the fact that they are retiring later and later and to the lack of training for young drivers. Faced with the shortage of drivers, some companies are turning to their recently retired employees for back-up. During peak periods, these drivers are hired on temporary contracts lasting a few weeks.

In terms of pay, drivers are paid a fixed salary, negotiated in advance, based on 40 hours' driving a week. Drivers in the eastern and western Länder have seen their wages converge markedly in recent years, thanks in particular to the introduction of the national minimum wage in 2015. The average salary has risen substantially since 2018, increasing by 12% in just a few years to 2,600 € for the typical driver profile used by the CNR in 2021. Some gaps still exist between German drivers and new recruits, who often hail from Eastern Europe. For the first two years of their career, the latter earn almost 10% less than their German counterparts. They are entitled to fewer bonuses but receive more travel allowances because they undertake more long-distance trips abroad.

On average, German drivers receive about 200 € a month in bonuses, compared with an average of 80 € a month for drivers from outside Germany. This includes a Christmas bonus, which generally amounts to half a month's salary, as well as profit-sharing and environment-friendly driving bonuses.

Based on interviews with companies, the driver/tractor ratio is 1.06.

NOTE ON DRIVING PERSONNEL COST FORMATION

International driver pay

In Germany, driver salaries are often based on a flat-rate and there is little difference between salaries of drivers working domestically and those working internationally, except in terms of allowances. In a typical month, the CNR estimates that international drivers spend 12 days away from home in Europe, 2 full days travelling in Germany and 8 half-days in Germany, resulting in a total allowance of 638 € per month.

TYPICAL PROFILE OF A DRIVER WITH A GERMAN CONTRACT WORKING INTERNATIONALLY AND BREAKDOWN OF THEIR COST

Standard profile of an international driver - Germany - 2021					
Characteristics		<ul style="list-style-type: none"> - Activity split 50/50 between national and international. - Short and middle size international itineraries (bordering countries, mostly the Netherlands and Austria) - Low rate of international itineraries, 3 sleepovers per week in neighboring countries. - 25 days of paid holidays, fully used in the year. - Total remuneration made up of fixed salary higher than the national minimum wage, often according to the collective agreement in Western Länder, completed by low travel allowances and some bonuses such as eco-driving, motivational and end of year premium. - Remuneration usually set up for 40 hours of driving, disconnected from the real volume of effective work. Working hours often not counted and the information is often absent on the pay slips. - Daily travel allowances reflecting the real activity of the driver. 			
Annual mileage achieved	120,500 km				
Number of actual working days per year	218				
Number of working weeks per year	43				
Number of driving hours per year	1,735				
Cost breakdown of a standard German international driver in 2021					
Presentation of a standard pay slip					
EMPLOYER			EMPLOYEE		
Gross Salary	€/month	2,780.00 €	Gross Salary	€/month	2,780.00 €
Fixed gross salary	€/month	2,580.00 €	Fixed gross salary	€/month	2,580.00 €
Other bonuses and extras on monthly basis	€/month	200.00 €	Other bonuses and extras on monthly basis	€/month	200.00 €
Social Contributions	19.13%	565.04 €	Social Contributions	18.13%	582.69 €
Health insurance	7.30%	202.94 €	Health insurance	7.30%	202.94 €
			Additional health insurance - medium observed rate	1.60%	44.48 €
Pension contribution	1.53%	42.54 €	Pension contribution	1.53%	42.40 €
			Additional contribution for employees without children	0.04%	0.97 €
Old-age, Invalidity, Death Pensions	9.30%	258.54 €	Old-age, Invalidity, Death Pensions	9.30%	258.54 €
Unemployment	1.20%	33.36 €	Unemployment	1.20%	33.36 €
Accidents at work (rate observed in RFT sector)	1.00%	27.80 €	Accidents at work (rate observed in RFT sector)	0.00%	0.00 €
			Salary after payment of social contributions		2,197.31 €
			Personal income tax after deductions		340.42 €
			Solidarity surcharge (5,5% of income tax)		18.72 €
Monthly salary after payment of contributions		3,345.04 €	Net salary after payment of social contributions and income tax		1,838.17 €
Travel allowance of a month of full service (10.5 months in a year)		638.00 €	Travel allowance of a month of full service (10.5 months in a year)		638.00 €
Monthly cost of a driver for a month of full activity		3,983.04 €	Net income of a driver for a month of full activity		2,476.17 €
Breakdown of annual cost of a standard German driver in 2021					
Fixed gross salary + bonuses * 12 months		33,360.00 €	Fixed gross salary + bonuses * 12 months		33,360.00 €
Employer's social contributions * 12 months		6,780.42 €	Employee's contributions and income tax * 12 months		11,077.26 €
Salary cost after payment of contributions * 12 months		40,140.42 €	Net fixed income after income tax * 12 months		22,058.07 €
Travel allowances * 10.5 months		6,699.00 €	Travel allowances * 10.5 months		6,699.00 €
Total annual cost		46,839.42 €	Annual net income		28,757.07 €
Cost of one hour of driving in €		27.00 €	Average monthly net income		2,396.42 €
Cost per kilometre in €		0.39 €			

Source : CNR European studies

Compared with the 2018 study devoted to the German RFT sector, the CNR has observed an increase of almost 10% in standard driving personnel costs, notwithstanding a slight reduction in social security contributions. This increase is even more marked in the case of low-cost haulage (+30% since 2018). Pressure on drivers' wages is growing against the backdrop of significant increases in the minimum wage and a shortage of drivers.

OVERVIEW OF THE OPERATING CONDITIONS AND COSTS OF A “TYPICAL” INTERNATIONAL HGV

Operating conditions and costs for a 40-tonne HGV operated on long distance international routes, 2021 values 		
	unit	Germany <i>Simulation</i>
Yearly mileage of a vehicle	km	127,600
Number of operating days	days/year	232
Semitrailer/tractor ratio		1.26
Cost of one driver	€/year	46,829
Driver/tractor ratio		1.059
Yearly cost of vehicle financing and possession	€/year	17,343
Average consumption per 100 km	litres	28.4
unit fuel price, 2021 average	€/litre	1.1356
Yearly fuel cost	€/year	41,152
Maintenance-repair	€/year	9,100
Tyres	€/year	3,450
Tolls and vignettes	€/year	19,400
Insurance (vehicle)	€/year	3,050
Axle tax and other vehicle taxes	€/year	929
Synthesis - cost price (excluding overhead costs)	€/year	144,038
Cost/mileage ratio per annum	€/km	1.13
Overhead costs	€/year	14,426
Synthesis - complete cost price	€/year	158,283
Complete cost per kilometer	€/km	1.24

Source : CNR European Studies

According to CNR calculations, the per-kilometre cost of a German 40-tonne heavy goods vehicle used mainly for international long-distance transport, excluding fixed costs, is 1.13 € (as opposed to 1.046 € in 2018), an increase of more than 8% compared with the previous study. This increase is largely due to a significant increase in driver costs but is mitigated by the decrease in the driver/tractor ratio, due to the labour shortage. Other cost items that have experienced significant increases are tolls (+23%), tyres (+28%), maintenance-repairs (+17%) and vehicle ownership costs (+6%). The increase in the cost of fuel was offset by the fall in average consumption, which explains why this item has remained relatively stable.

In conclusion, when fixed costs (estimated at approximately 9% of total costs) are factored in, the overall per-kilometre cost rose to 1.24€ in 2021.

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