



Comité National Routier



EUROPEAN STUDIES

The Danish road freight transport sector

2021 study



Comité national routier (CNR)

in collaboration with
Conseil, Energie, Transports

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Comité national routier – Paris

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The map on the cover comes from <https://commons.wikimedia.org/wiki/File:EU-Denmark.svg>

WARNING

Some data have been updated with available figures for 2022 and 2023. The standard profiles drawn up are nevertheless based on the economic conditions prevailing in 2021.

It should be noted that this study was carried out during the Covid pandemic. This health crisis has had a significant impact on the data used in the study. This factor should be taken into account when interpreting the results.

The conversion rate used is 7.437 DKK to 1 EUR.

SUMMARY

The Danish RFT sector is primarily involved in domestic transport, which accounts for almost 84% of its total activity. In terms of international transport, Danish hauliers are largely focused on bilateral activity.

When it comes to international operations outside Northern Europe, Danish carriers, unlike their Scandinavian counterparts, have equipment that enables them to operate in Southern and Western Europe. As a reminder, most Scandinavian sectors have EMS vehicles¹ that cannot be operated outside Northern Europe. Danish international operations are thus made up of trips to Sweden and Norway, and more long-distance destinations in Southern and Western Europe. Trips to Sweden are often regarded as belonging to extended domestic activities, due to that country's geographical proximity. In an effort to draw meaningful comparisons between the Danish sector and the other European sectors studied by the CNR, the choice has been made to focus on hauliers operating 40-tonne semitrailer trucks who are engaged to some extent in intra-European (EU) transport outside the Scandinavian zone.

In terms of labour standards, the Danish road haulage sector boasts a collective agreement that is highly favourable to road haulage drivers. The first specific benefit is that Danish drivers on international assignments are paid 24 hours for each day of driving, regardless of the amount of time worked, as stipulated in the collective agreement. This arrangement more than covers overtime pay. The second specific feature of this agreement is that the gross salary includes a per-kilometre allowance for each kilometre travelled outside of Denmark. This allowance stands at 0.08€/km. Denmark also stands out as one of the European countries with the lowest employer social contribution rates. On the other hand, tax rates are extremely high. Sickness, maternity, invalidity, old-age, surviving dependants' insurance and family benefits are all financed by tax rather than social security contributions. As far as paid leave is concerned, employees receive holiday pay from a paid holiday fund.

Finally, the annual cost of a Danish driver working internationally is more than 61,205€/year, one of the highest in the European Union, slightly below the cost of a Swedish driver (66,900€/year).

According to the CNR's calculations, the cost of a Danish 40-tonne HGV operating internationally is approximately 170,000€ per year, or 1.32€ per kilometre.

¹ In the case of certain national and international haulage operations, Directive 2002/7/EC of 18 February 2002 allows Member States to authorise vehicles with vehicle dimensions that deviate from the official standards. Thus, it is possible to operate vehicles weighing up to 60 tonnes and measuring up to 25.25 metres in length by using certain compliant combinations of equipment. This system is known as the European Modular System, or EMS.

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1. ECONOMIC, SOCIAL AND ENVIRONMENTAL FRAMEWORK IN THE DANISH SECTOR

1.1. DENMARK IN BRIEF

Capital	Copenhagen
Area	42,925 km ²
Population	5.87 million inhabitants (Eurostat, 2022)
Official EU language(s)	Danish
Political system	Parliamentary monarchy
Head of state	Queen Margrethe II
Prime Minister	Mette FREDERIKSEN
Minister for Transport	Thomas DANIELSEN
Date of EU membership	1 January 1973
Seats in the European Parliament	15 MEPs
Currency	Danish crown
European Commissioner	Margrethe VESTAGER, Executive Vice President for a Europe for the Digital Age and Commissioner for Competition
GDP growth (%)	4.9% (Eurostat, 2021)
Inflation (%)	8.5% (Eurostat, 2022)
Unemployment rate (% of working population)	5.1% (Eurostat, 2021)
Balance of trade	24,031 million € (Eurostat, 2021)
Greenhouse gas emissions	7.7 tonnes/inhabitant/year (Eurostat, 2021)

1.2. ROAD FREIGHT TRANSPORT IN DENMARK

TRANSPORT POLICY AND TRANSPORT INFRASTRUCTURE

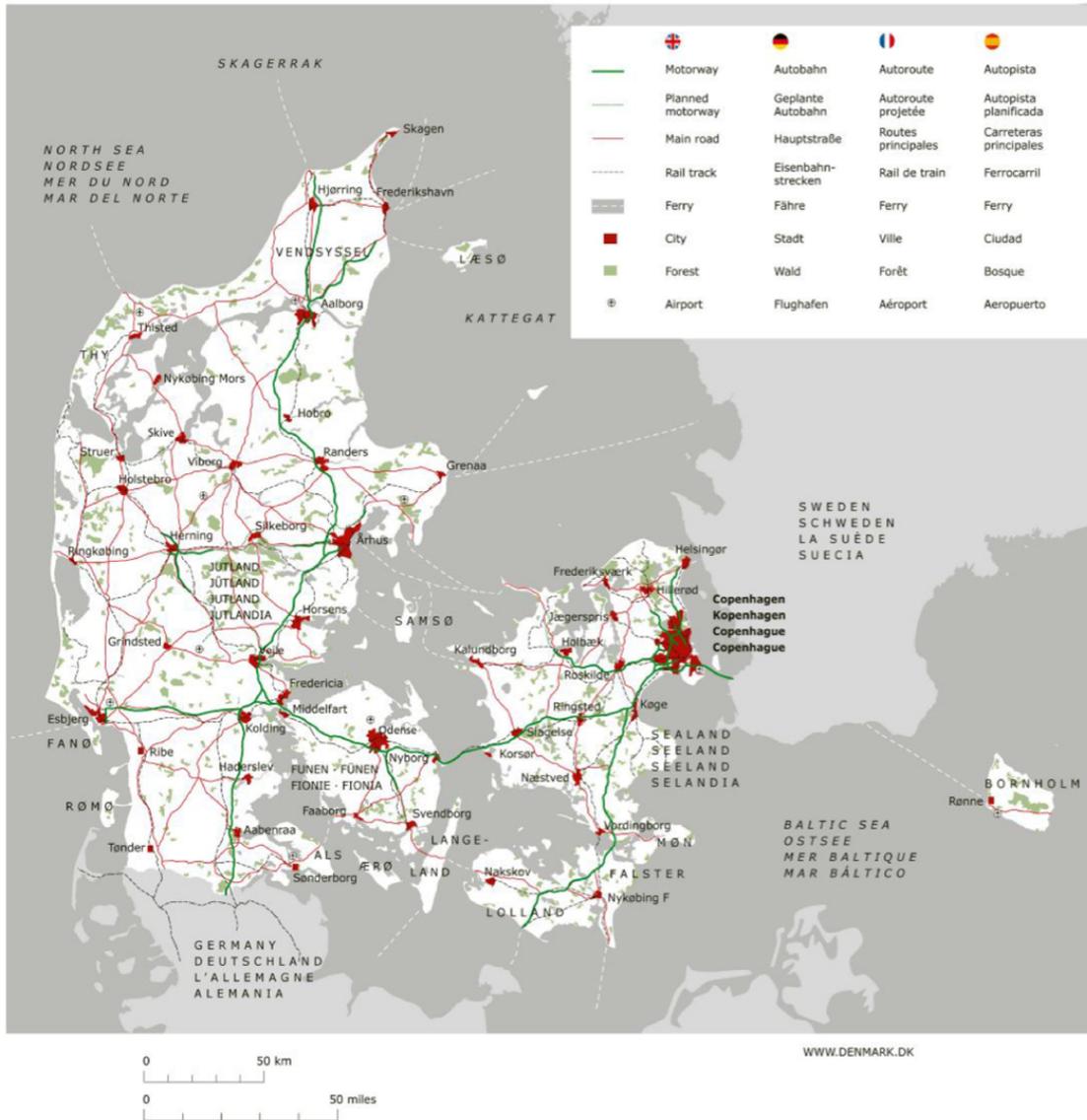
Transport infrastructure and use

Modal split of freight transport (in tonnes kilometres)

2021	Road	Rail	Inland waterways
European Union	77.4%	17.0%	5.6%
Denmark	91.3%	8.7%	0.0%

Source: Eurostat

Transport infrastructure in Denmark



Source : mapsland

The road network²

The road network has the following characteristics:

Total length	74,927 km
Motorways	1,353 km
Secondary roads	390 km
Main roads	73,180 km

Road transport activity in Denmark increased considerably between 2010 and 2020, rising by more than 25%. This is due in particular to the extension and renovation of the road network, especially main roads.

² Eurostat

Other factors have contributed to the increase in traffic on major roads, in particular the ongoing internationalisation in the flow of goods and freight. The majority of freight is transported by lorry, almost 95%, as shown in the chart below.



Source : <https://www.dst.dk/en/Statistik/emner/transport/godstransport/godstransport-med-lastbil>

The rail network

The Danish railway extends over more than 2,000 km . It carries mainly passenger traffic. However, a significant amount of freight transits between Sweden and Germany thanks to the rail links between Jutland, Fionie, Sjaelland and above all the link between Copenhagen and Malmö.

When it comes to domestic freight transport, modular lorries operate across the entire state road network. The bulk of this transport takes place between Jutland and Zeeland (East and West). A large proportion of this freight is transported at night.

In recent years, the Danish railways have undergone a number of major upgrades. Among other things, these projects will significantly improve rail freight transport throughout Denmark. The Fehmarnbelt link will create a new freight route between Sweden and Germany. The aim is to improve rail freight transport in Northern Europe. In addition to the Fehmarnbelt link, the most important projects in terms of rail freight transport are capacity extension at Ringsted, a new southern rail corridor and a double track between Tinglev and Padborg are the most important projects for rail freight transport.³

Volume of freight transported by rail in Denmark in 2020 and 2021 (in thousand tonnes)

	2020T1	2020T2	2020T3	2020T4	2021T1	2021T2	2021T3	2021T4
Domestic transport	210	289	259	220	133	105	142	169
International transport	478	413	382	425	384	396	353	377
Transit	1,664	1,506	1,360	1,410	1,209	1,176	1,155	1,294

Source: Statsvejnettet 2020_web, Danmark fremad - Infrastrukturplan 2035

³ <https://www.dst.dk/en/Statistik/emner/transport/godstransport/godstransport-med-tog>

Waterways

Many waterways have been re-routed and transformed by artificial canals, mainly for agricultural purposes rather than to facilitate the large-scale transport of goods. Several towns have artificial canals devoted to passenger transport, in particular for tourism purposes.

Freight transport via inland waterways is virtually non-existent in Denmark.

ROAD FREIGHT TRANSPORT OPERATORS

Regulatory authorities

The Ministry of Transport

The Danish Ministry of Transport (*Transportministeriet*) is responsible for coordinating and implementing transport policy in Denmark.

The Ministry is headed by a Permanent Secretary. It employs around 140 people. The day-to-day administration and management of transport tasks and missions is carried out by a number of institutions, executive agencies, consultancy companies and boards of directors. Taking into account all these institutions and companies, the Ministry employs around 40,000 people.

Central government

Central government is responsible for:

- general maintenance and planning of the road network;
- the majority of trains and rail networks;
- the metro system;
- port management;
- aviation, airports and postal services.

Regional government

The regional authorities are responsible for:

- the creation of transport companies;
- setting fares and ticketing systems;
- coordination and planning;
- private railways;
- individual transport for disabled people;
- smart transport systems;
- digital infrastructure;
- transport assistance for disabled people.

Local government

Municipal authorities are responsible for:

- financing local bus services;
- the local road network.

Around 5% of all roads are main roads, while the remaining 95% are largely under local municipality control.⁴

⁴ <https://portal.cor.europa.eu/divisionpowers/Pages/Denmark-Transport.aspx>

The Danish Road Directorate (part of the Ministry of Transport)

The "Vejdirektoratet" or Danish Road Directorate is responsible for Denmark's national road network, which includes motorways, a number of main roads and many of the country's bridges – totalling approximately 4,000 kilometres in length.

The role of the Road Directorate is as follows:

- Planning
- Construction and operations
- Traffic and management⁵

Professional associations

Danish Transport and Logistics Association (DTL)

DTL is the most important Danish haulier association.

The purpose of DTL is to promote the interests of hauliers and to advise DTL members.

DTL is also a member of the Brussels-based Nordic Logistics Association (NLA), which brings together the Danish, Swedish, Finnish and Norwegian trade federations.

NLA also works closely with the French (FNTR) and German (BGL) hauliers' organisations, and it shares an office with them in Brussels.

ITD

ITD is a private business association representing professional transport and logistics companies. ITD advises and helps develop networks for its approximately 700 member companies. It promotes the political interests of the transport and logistics sector at domestic and international levels.

Trade unions

3F

The 3F union is the largest and most powerful union in Denmark, the one that boasts the most collective agreements. 3F is involved in 194 sectoral collective agreements, including the one covering road haulage.

⁵ <https://www.vejdirektoratet.dk/english/sektion/information-english>

The DANISH RFT SECTOR – KEY DATA

Structure of the Danish RFT sector in 2022

2022	Goods transported	Tonne-kilometres achieved		Average distance	Vehicle-kilometres achieved
	Thousand tonnes	million t.km	%	km	million vehicle.km
TOTAL	174,842	15,162	100.0%	87	1,364
Domestic transport	170,943	12,755	84.1%	75	1
International transport	3,898	2,407	15.9%	617	166
<i>International transport of goods loaded in Denmark</i>	2,134	1,615	10.7%	757	115
<i>International transport of goods unloaded in Denmark</i>	1,135	544	3.6%	479	34
<i>Cross-trade</i>	151	119	0.8%	788	9
<i>Cabotage</i>	478	129	0.9%	270	8

Source: Eurostat

Danish road haulage is predominantly domestic in focus. Domestic business accounts for more than 84% of its total activity.

Evolution of the Danish RFT sector

Evolution of the Danish RFT sector in million tonne-kilometre														AAGR*
Million tonne-kilometre	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
TOTAL	15,018	16,120	16,679	16,072	16,184	15,500	16,094	15,502	14,998	14,991	14,686	15,342	15,162	0.08%
Domestic transport	10,573	12,025	12,292	12,217	12,943	12,532	13,037	12,577	12,075	12,165	12,407	12,863	12,755	1.58%
International transport	4,445	4,095	4,387	3,855	3,241	2,969	3,057	2,925	2,923	2,826	2,279	2,479	2,407	-4.98%

Source: Eurostat

*Average annual growth rate

Between 2010 and 2022, Danish road haulage saw a significant and continuous decline in its international activity (down almost 5% annually over the period in question). Domestic business seems to be holding up well, however, with an average annual growth rate of almost 1.6%. It should also be noted that, over the period in question, domestic business seems to have stabilised at around 84% of total activity.

Cabotage

Danish cabotage accounted for approximately 5.4% of the sector's international road transport business in 2021 and has been in steady decline overall. Denmark is the 24th-largest provider of cabotage services in the European Union, and cabotage activity is very limited.⁶

⁶ CNR – European RFT ranking 2021

Cabotage under Danish flag in the 4 main "cabotaged" countries

Million tonne-kilometre	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AAGR*
Cabotage under Danish flag	389	321	361	385	245	216	176	171	126	99	129	-10.45%
<i>in Germany</i>	113	91	89	106	56	57	21	47	13	13	23	-14.72%
<i>in Sweden</i>	135	100	106	90	108	51	76	44	83	64	75	-5.71%
<i>in Norway</i>	43	73	88	85	31	36	37	30	23	20	26	-4.91%
<i>in France</i>	66	44	44	78	45	65	22	34			2	-29.51%
Share of cabotage in Danish transport %	2.33	2.00	2.23	2.48	1.52	1.39	1.17	1.14			0.85	-

Source: Eurostat

AAGR: Average annual growth rate

RFT companies

Evolution of the number of companies, employees and turnover in the Danish RFT sector

Year	Number of RFT companies	Turnover, in million euros	Number of employees
2011	5,541	5,022	29,562
2012	5,260	5,574	30,306
2013	4,910	5,296	29,230
2014	4,696	5,411	30,180
2015	4,595	5,609	32,270
2016	4,651	5,692	26,009
2017	4,644	5,993	27,080
2018	4,680	6,084	28,044
2019	4,603	6,233	27,456
2020	4,424	6,366	28,210

Source: Eurostat

The number of RFT companies in Denmark fell between 2011 and 2020, declining by 2.47% annually. Road haulage revenues remained stable over the period, with an average annual growth rate of 2.67%. The number of people employed in the sector rose until 2015, before beginning a more or less steady decline until 2020.

Number of RFT and removal companies depending on size classes (employees) in Denmark

Size classes	2012	2013	2014	2015	2016	2017	2018	2019	2020	2019
From 0 to 1 employee	3,235	2,884	2,774	2,66	2,736	2,713	2,763	2,700	2,461	4,939
From 2 to 9 employees	1,581	1,598	1,454	1,439	1,525	1,528	1,539	1,553	1,553	7,402
From 10 to 19 employees	339	330	349	352	323	344	332	322	345	864
From 20 to 49 employees	240	235	236	256	211	214	222	221	226	422
From 50 to 249 employees	98	97	107	110	88	89	89	86	93	145
250 employees and more	7	6	8	10	5	6	8	8	8	9
Total	5,500	5,150	4,928	4,827	4,888	4,894	4,953	4,890	4,686	13,781

Source: Eurostat

Danish haulage and removal companies with fewer than 10 employees account for almost 86% of the sector. The Danish road haulage sector is highly fragmented.

Key figures on RFT employment in Denmark, 2020

Companies number	4,424
Turnover - million €	6,366
Employees' cost - million €	1,742
<i>Wages and salaries- million € (a)</i>	1,592
<i>Social security costs - million € (b)</i>	150
Apparent employer contribution rate (b/a)	9.4%
Number of persons employed	30,536
<i>Unpaid persons employed</i>	2,326
<i>Employees</i>	28,210
<i>Share of employed in total workforce</i>	92.4%
Average number of persons employed per company	7
Average cost of employee in €	61,800
Added value per employee in €	84,900
Turnover per person employed	208,500
Investment per person employed in €	10,900
Investment rate (Investment/Turnover)	14.0%

Source : Eurostat

Vehicle numbers

Vehicle fleet in Denmark

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Rigids	456,386	446,968	431,567	426,964	423,958	425,327	423,809	417,585	408,094	403,943
Road tractor	12,862	12,589	12,858	12,867	13,127	13,640	14,130	14,539	14,584	14,674
Trailers and semitrailers	913,054	937,821	962,456	988,872	1,016,936	1,047,451	1,077,471	1,106,044	1,130,105	1,165,317

Source: Eurostat

The tractor fleet has increased over the period 2011-2020, by an average of 1.48% year-on-year; the same goes for trailers and semi-trailers (+2.75%/year). Conversely, the number of rigids fell slightly, by 1.35% annually.

Technical characteristics of vehicles and features specific to Denmark and Nordic countries⁷

Like its Swedish and Norwegian neighbours, Danish hauliers often use EMS vehicles to carry out its operations in Scandinavian countries. Directive 2002/7/EC of 18 February 2002 provides a major exemption from European Directive 96/53/EC, which sets the maximum weight and length of road vehicles permitted for use on domestic and international routes in Europe, i.e. 18.75 metres and 40 tonnes. In the case of certain national and international haulage operations, it allows Member States to authorise vehicles with vehicle dimensions that deviate from the official standards. Thus, it is possible to operate vehicles weighing up to 60 tonnes and measuring up to 25.25 metres in length by using certain compliant combinations of equipment. This system is known as the European Modular System, or EMS.

Currently, 5 European countries have authorised the EMS: Sweden, Finland, the Netherlands, Denmark and Germany (with a maximum authorised weight of 44 tonnes).

The EMS makes it possible to operate vehicles weighing up to 60 tonnes and measuring up to 25.25 metres in length. The benchmark payload is considered to be 25 tonnes for a 40-tonne vehicle, 29 tonnes for a 44-tonne vehicle and 38 tonnes for a 60-tonne vehicle, which translates into a 50% increase in payload compared with the EU international standard (GVRW of 40 tonnes). The gain in the number of pallets that can be carried is equivalent (i.e. 50%), while the gains in terms of volume are of the order of 60%.

However, when it comes to providing services outside of Northern Europe, Danish hauliers (unlike their Scandinavian counterparts) have equipment that enables them to operate in Southern Europe, namely 5-axle semi-trailer trucks with air suspension, and a GVRW of 40 tonnes. In an effort to draw meaningful comparisons between the Danish sector and the other European sectors studied by the CNR, the choice has been made to focus on hauliers who are engaged to some extent in intra-European (EU) transport outside the Scandinavian zone. Semi-trailer trucks were used as a basis for this study of Danish RFT costs.

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

COMPANY TYPES

Limited company

Limited liability companies require at least one shareholder, who may or may not be resident in Denmark. The minimum share capital required for setting up a limited liability company in Denmark is 40,000 DKK, which is divided into shares. These shares are neither negotiable nor transferable. Shareholders are liable only up to the amount of their own investment contribution.

Corporation

At least one founder is required to set up a corporation, with a minimum share capital of 400,000 DKK. Shareholders are not liable for the company's debts. This type of company also provides its members with shares but, unlike the limited liability company, these can be offered to the general public.

General partnership

At least two members are required to set up a partnership. The founders may be either natural or legal persons, and they are fully liable for the debts of the partnership. Indeed, this is the main feature of general partnerships. It is compulsory for general partnerships to be listed in the Danish Companies Register.

Limited partnership

A limited partnership is both similar to and distinct from a general partnership. At least two partners must sign an agreement to create a limited partnership, and they may be either physical or legal persons. The characteristic feature of this type of company is that at least one partner must be a general partner and at least one must be a limited partner (i.e. with liability limited to the extent of his own investment contribution). Listing in the Danish Companies Register is also compulsory.

Sole trader

An individual who wishes to set up a business in Denmark by himself is referred to as a sole proprietor. Sole proprietors are fully liable for the company's debts. Unlike a limited company, the individual's personal assets are not protected.

ROAD FREIGHT TRANSPORT TAXES

Corporate tax

Corporate tax rate in Denmark is 22%, which places Denmark below the OECD and EU averages.

Uniquely among the Nordic countries, Denmark does not levy double taxation on Danish companies with subsidiaries abroad. As a result, Greater Copenhagen is a very attractive location for setting up a Scandinavian head office.

VAT

The VAT rate in Denmark is 25%. There is no reduced rate.

Axle tax

Amount of the axle tax in Denmark for a 5-axle semi-trailer truck

	Air suspensions	Other type of suspensions
< 38,000 kg	2,769 DKK	3,854 DKK
≥ 38,000 kg	3,854 DKK	5,239 DKK

Source: ACEA 2021

In Denmark, the axle tax for a 5-axle semi-trailer truck (2X3) with air suspension is 3,854 DKK/year, i.e. 518€/year.

Eurovignette

In Denmark, as in Luxembourg, the Netherlands and Sweden, HGVs have to pay a user charge, known as a "Eurovignette", to be able to use motorways or similar roads.

The charge applies to all goods vehicles (even when empty) whose maximum authorised mass is equal to or greater than 12 tonnes.

Eurovignette – annual rates in 2023

Classe d'émissions	1–3 essieux	4 essieux ou plus
Euro 0	1.407,00	2.359,00
Euro 1	1.223,00	2.042,00
Euro 2	1.065,00	1.776,00
Euro 3	926,00	1.543,00
Euro 4	842,00	1.404,00
Euro 5	796,00	1.327,00
Euro 6 ou moins polluants	750,00	1.250,00

Source : <https://www.eurovignettes.eu>

Excise duty on commercial diesel

In accordance with Directives 92/12/EC and 2008/118/EC, Denmark has introduced a system of excise duties. On 1 April 2023, excise duty on diesel stood at 44.37€/hl.⁷ There is no partial refund of excise duty on commercial diesel in Denmark.

LABOUR REGULATIONS APPLICABLE TO ROAD FREIGHT TRANSPORT

Collective agreement

The main collective agreement for road haulage is the 3F agreement.

In Denmark, the labour market is governed by collective agreements. These agreements are negotiated between employers and employees.

The transport sector is governed by more than 40 different collective agreements, which regulate pay and working conditions. Collective agreements guarantee decent working conditions and entitle employees to rights such as pensions, holiday pay, payment for 5 public holidays, holiday pay, sick pay, etc. It is thus vital that employers be signed up to a collective agreement.

⁷ CNR – Excise duties, partial refund mechanisms and short-term measures relating to excise duties in Europe – Situation on 1 April 2023

Pay

Sectoral minimum wages

Danish international driver's basic salary by seniority in 2021

International driver category	Salary (DKK/day)	Salary (DKK/hour)
New employee	996.16	41.50
More than 9 months of seniority	1,075.21	44.80
3 years and more of seniority	1,115.21	46.47

Source: 2021 3F collective agreement

The typical base salary established for the purpose of this study is that of a driver operating internationally, with more than 3 years' seniority (average 7 years). On this basis, an hourly rate of 46.47 DKK has been arrived at (i.e. 6.25€/hour). Danish drivers on international assignments are paid for 24 hours of driving, irrespective of the time worked, i.e. 150€/day. The pay slips provided indicated an average of 480 hours, or 20 days of driving.

Per kilometre allowance

The Danish 3F collective agreement also stipulates a per kilometre allowance, in addition to this base salary. It is payable for each and every kilometre travelled outside Denmark. In 2021, drivers were thus entitled to an allowance of 0.5768 DKK per kilometre driven abroad, i.e. 0.08€/hour.

Overtime

For those driving domestically, all hours worked in excess of the 37-hour work week are subject to overtime pay as follows:

- For each hour between the 37th and 42nd hour, the overtime supplement is 38.76 DKK (5.21€).
- For each hour beyond the 42nd hour, the overtime supplement increases to 95.21 DKK (12.80€).

Danish drivers on international assignments are not entitled to overtime pay. They are paid 24 hours for each day, regardless of the time worked. This method of payment obviates the need for specific overtime pay. On average, these drivers were paid for 480 hours (i.e. 20 days) of work.

Work on Saturdays, Sundays and public holidays

In 2021, a salary increase of 18.83 DKK/hour was instituted, i.e. 2.53€/hour.

Loading and unloading hourly allowance

The collective agreement also provides for drivers involved in loading and unloading goods. In 2021, it was 89.63 DKK, i.e. 12.05€/hour.

Paid leave

Employees accrue 2.08 days' paid leave per month, which amounts to 25 days' paid holiday per year. Under the terms of the "Lov nr60 af 30/01/2018" act, the holiday year (for the purpose of accruing paid leave) runs from 1 September to 31 August of the following year (12 months). However, the period during which annual leave can be taken extends to 16 months, which means that an employee can take holidays during the holiday year + 4 additional months, i.e. until 31 December.

In addition to the five weeks' holiday provided for by law, employees are often granted a sixth week's leave or extra public holidays under the terms of an agreement with their employer or a collective agreement.⁸

During this leave period, drivers are entitled to a minimum income of 14,500 DKK (1,950€).

Travel allowances

The international travel allowance is 532 DKK per day (71.5€ per day).

For journeys of less than 15 hours, a flat-rate allowance of 101.88 DKK (13.70€) is paid to novice international drivers, whereas international drivers with more than 9 months' seniority are entitled to 107.15 DKK (14.41€), rising to 109.81 DKK (14.77€) in the case of international drivers with more than 3 years' seniority.

In the case of both domestic and international assignments, the hourly travel allowance is 21.71 DKK (2.92€) for experienced Danish drivers. This allowance is calculated from the moment the journey begins. The travel allowance ceases to be paid once the driver has been at home for at least 3 hours. On all the pay slips collected, drivers receive a travel allowance for each hour paid, i.e. 480 hours in the case of the typical profile used in this study.

Social security contributions

For the employer

Employers are required to make certain flat-rate social security contributions to specific funds in Denmark. These payments are fixed DKK amounts, rather than percentages of an individual's income. Employers and employees are required by law to contribute to the following benefits schemes:

ATP: supplementary work-related pension, compulsory for people who work at least 9 hours a week. The amount payable varies between 94.65 DKK (12.73€) and 284 DKK (38.19€) per month. It is payable for each employee aged 16 and over. This contribution, which varies according to the number of hours worked, is paid as follows: one-third by the employee and two-thirds by the employer.⁹

AUB: Employer contributions to finance apprenticeships and vocational training, which amount to 3,213 DKK per year (432.03€/year), i.e. 36€/month.

AES: to cover accidents at work and occupational illnesses. The employer pays a premium to an approved private insurance fund. Premiums range from 1,176 DKK (158.13€ per year) to 24,441 DKK per year (3,286.41€/year) depending on the sector of activity and the level of risk involved. The figure for lorry drivers is 15,470 DKK per year (2,080.13€/year), i.e. €173.34/month.

FIB: Payment to cover the ATP contribution for people who are unemployed due to illness, maternity leave or unemployment.

⁸ https://assets.kpmg/content/dam/kpmg/dk/pdf/DK-2019/01/New_Danish_Holiday_Act.pdf

⁹ <https://www.cleiss.fr/docs/cotisations/danemark.html>

Holiday allowance (*Feriepenge*): 12.5% of the employee's salary. Holiday pay is equivalent to 2.08 days' holiday for each month worked. It accrues from September to August of the following year, i.e. over 12 months. Holiday pay can then be used from September to December of the following year, i.e. over a period of 16 months. It is paid into a paid leave fund, which then pays out the holiday allowance while the employee is on leave. Before being paid out, holiday pay is subject to the "AM-bidrag" contribution of 8% and to income tax.

For the employee

ATP: Supplementary work-related pension. See above.

Unemployment contribution: Also known as "AM-bidrag", this contribution covers employees in the event of unemployment and sickness, as well as when it comes to training expenses. The contribution amounts to 8% of the employee's salary. This contribution is deducted from gross salary before any other tax is calculated.

Personal income tax

In Denmark, sickness, maternity, invalidity, old-age, surviving dependants' insurance and family benefits are all financed by tax rather than social security contributions.

Employees and the self-employed are also subject to a levy of 8% of their gross income. This is not a social contribution in the strict sense of the term, but rather an income tax. In the case of salaried employment, this contribution is deducted from an individual's salary by the employer and collected by the tax authorities.¹⁰

In Denmark, individuals are subject to various taxes: national income tax, municipal tax and labour levy.

All the types of income listed below are subject to different taxes:

- Personal income (salary, benefits in kind, self-employed income, retirement pension, etc.).
- Capital income (interest income, interest expenses, net taxable capital gains, etc.).
- Taxable income (personal income combined with capital income and adjusted for certain itemised deductions).
- Income from shares (dividends, capital gains on shares).
- Property value (value of property located in Denmark or abroad).

Different types of income are subject to different taxes and are therefore taxed at different rates. This also means that the value of a deduction differs depending on the income from which the deduction can be made.

¹⁰ <https://www.cleiss.fr/docs/cotisations/danemark.html>

Inventory of existing taxes in Denmark in 2021 and submitted to individuals

2021 taxes	Revenue base	Tax rates
Income tax		
Lower rate	Personal income	12.11%
Higher rate	Personal income	15.00%
Local incomes		
Local income (average)	Taxable income	24.97%
Labor market tax	Personal income	8.00%
Share tax		
0 to 56,500 DKK	Income from shares	27.00%
More than 56,500 DKK	Income from shares	42.00%

Source: PWC

2021 income tax brackets

Income (DKK)	Unemployment (mandatory)	Income tax rate
0 - 50,542	8%	0%
50,543 - 544,799	8%	12.11%
More than 544,800	8%	15%

Source: PWC

In Denmark, people earning less than 50,542 DKK/year (6,796€/year) are exempt from income tax.

2. OPERATING CONDITIONS AND COSTS FOR A 40-TONNE DANISH HGV OPERATING INTERNATIONALLY

This part of the study describes the economic and social conditions prevailing at the end of 2021, at the time this study was conducted. In carrying out this study, the CNR has drawn on a research focused primarily on the fiscal and labour aspects of the RFT sector, as well as on feedback from the experts with whom the CNR collaborates. These different sources provide an overview of the Danish international road haulage sector. This research and process of dialogue are further backed up by interviews with Danish hauliers and lorry drivers (see below and page 30).

All the figures ultimately used by the CNR in order to construct the standard 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 12 Danish road freight transport companies involved in long-distance transport operations, mainly internationally. The companies selected for the purposes of this study can be described as follows:

	Number of road tractors	Number of drivers	Principal markets	Turnover
Company 1	118	150	Sweden, Norway, Germany, Netherlands, Italy	134,462,821 €
Company 2	15	15	Germany, Norway, Sweden	53,785,128 €
Company 3	21	27	Germany, Sweden	40,338,846 €
Company 4	48	52	Norway, Sweden, United Kingdom, European Union	12,101;654 €
Company 5	25	25	Germany, Sweden	23,996,773 €
Company 6	40	43	Sweden, Finland, Norway	21,514,051 €
Company 7	10	11	Germany, Norway, Sweden	14,790,910 €
Company 8	2	3	Italy, Belgium, Luxembourg, Netherlands, Sweden	67,231,411 €
Company 9	14	15	Sweden, Norway, Finland, Germany	1,999,731 €
Company 10	11	18	Sweden	2,599,650 €
Company 11	3	3	European Union, France, Germany, Italy, Spain, Belgium, Netherlands	874,008 €
Company 12	16	16	Germany, Netherlands, Belgium, France, Sweden, Norway	4,706,199 €

The companies visited for this study are extremely diverse in terms of their size and structure. They all specialise in international road haulage.

To enable a comparison with data from the CNR's other country studies, only companies whose main activity is international long-distance freight transport have been selected.

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

TRANSPORT EQUIPMENT – Use

Vehicle usage depends on companies' customers and the main markets in which they operate. The number of days a vehicle is used varies between 220 and 242 days, with a clustering around 232 days per year. The average annual mileage travelled by the vehicles operated by the hauliers we met ranges between 110,000 km and 150,000 km, with a clustering around 127,500 km per year. The differences in mileage observed between the companies visited are mainly explained by the markets they operate

in. Most of the companies we visited operate mainly in neighbouring Germany and Sweden. Some, on account of their specific activities (fruit and vegetables, flowers), are mainly focused on the south and west of Europe.

Tractors used internationally are kept for between 3 and 9 years, with the vast majority of companies surveyed keeping them for around 6 years. There are two types of financing: self-financing and bank loans or leasing. The vast majority of the companies we interviewed lease their vehicles. They tend to lease for 36 to 72 months, with a clustering around 60 months. Vehicles are kept for a further 1 year after the end of the contract.

Based on company surveys, the semi-trailer/tractor ratio is 1.48.

TRANSPORT EQUIPMENT – Financing

The average purchase price of a new Euro VI class tractor reported in interviews with Danish hauliers stood at around 111,000€. The purchase price of a semi-trailer is estimated at 23,000€. The majority of companies appear to lease for a period of 60 months.

The average ownership period for tractors is 6 years, and 10 years in the case of semi-trailers.

Data on interest rates (estimated at 1.5%) and the terms of the leasing contract have been used to calculate the annual cost of owning a 40-tonne semi-trailer truck. This annual cost amounts to approximately 19,806€, with a semi-trailer/tractor ratio of 1.48.

FUEL

When it comes to buying fuel, the vast majority of Danish companies – approximately 95% – make their purchases in Denmark. In 2021, they paid an average of 1.132€ (excluding VAT) per litre of fuel in Denmark. As for the remaining 5%, the hauliers we met choose to purchase their fuel in Germany or Sweden, depending on their markets. In the case of intra-European (EU) transport, they tend to buy their fuel in Germany (average price 1.167€/litre). However, several companies stated that they source all their fuel in Denmark. However, several companies stated that they source all their supplies in Denmark.

According to the fuel basket calculated by the CNR, based on information provided by companies, the price of a litre of fuel stood at 1.133€ (excluding VAT).

MAINTENANCE & REPAIRS

Based on the interviews conducted, companies appear to be evenly split between in-house garages and outsourcing when it comes to vehicle maintenance and servicing. In the companies visited, costs in this area vary between 3,500€ and 15,000€ per year per semi-trailer truck. The annual cost of maintenance and repairs for a 40-tonne semi-trailer truck is estimated to be around 6,700€/year.

TYRES

The annual cost of tyres ranges from 1,720€ to 5,200€. This cost item varies greatly depending on the type of vehicle purchased (with or without a tyre contract) and the brand chosen, as well as the mileage travelled, and loads carried. Companies that are also involved in international transport in the Nordic countries, Sweden and Norway, have higher tyre costs than others. Half of the companies surveyed said they had a contract for the maintenance and replacement of their tyres, while the others had chosen to handle tyre maintenance in their own in-house garages.

According to Danish hauliers, the annual cost of tyres for a 40-tonne semi-trailer truck is estimated at 3,700€.

TOLLS

The annual cost of tolls for a 40-tonne semi-trailer truck operating internationally falls within a broad range of between 6,700€ and 21,500€. The cost of tolls depends to a great extent on the countries visited and the companies' main markets. This increase can be explained in particular by the growing number of countries using kilometre-based tax, such as Belgium, and by the general increase in road charges (such as the Maut, in Germany) in the markets and countries through which Danish hauliers pass.

The amount includes the Eurovignette, which is used in the Netherlands, Luxembourg, Sweden and Denmark.

The annual cost of tolls is estimated at 15,400€ for a typical Danish company operating internationally, mainly on an intra-European (EU) basis. This figure includes vignettes.

INSURANCE

The figures reported by hauliers vary widely, ranging from 2,015€ to 4,800€ per year per semi-trailer truck. Most of the companies we visited had opted for comprehensive insurance for their vehicles. Only two companies declared that they had third-party insurance for their vehicles.

The amount arrived at by the CNR is 2,770€ per year for comprehensive insurance for a 40-tonne semi-trailer truck.

AXLE TAX AND OTHER VEHICLE TAXES

This tax stands at 518€ for a 40-tonne, 5-axle semi-trailer truck with air suspension. It remains unchanged.

OVERHEAD COSTS

Information on fixed costs is often difficult to collect. The way they are calculated varies from company to company. Some companies include the cost of their in-house garage, while others include the cost of ancillary activities such as logistics. The hauliers we spoke to put this cost at between 4% and 10% of the total cost of the vehicle. A figure of 7% of the cost price of the vehicle has been used for the purpose of our calculations.

2.2. EMPLOYMENT CONDITIONS AND DRIVER EMPLOYMENT COSTS

Employment conditions and driver pay in Denmark 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 Danish contracts, agreed to be interviewed about their working 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 Danish contract working internationally.

WORKING CONDITIONS

Permanent contracts are the most widespread form of employment contract in the sector. The average number of days worked per year is 213, ranging between 210 and 231 days. The statutory amount of paid leave is 5 weeks. All the drivers we met said that they were entitled to a sixth week's paid leave. These days off are usually taken in the summer and during the end-of-year holidays. Drivers therefore work an average of 10.5 months a year.

As regards their working schedule, Danish drivers assigned to international operations generally spend fifteen nights or so away from home each month, and in most cases return home every weekend.

Average annual driver mileage as reported by companies is approximately 115,500 km. Drivers report driving an average of approximately 118,500 km annually. The figure we have settled on is 117,000 km per year. The reported driver/tractor ratio is 1.09.

NOTE ON DRIVING PERSONNEL COST FORMATION

International driver pay

Drivers pay is governed by the 3F collective agreement. All the companies we visited, as well as all the drivers we interviewed, appeared to be operating within this framework. As a reminder, our estimated figure is based on minimum gross salary scales, i.e. 46.47 DKK/hour (6.25€/hour) for a driver with an average seniority of 7 years (average calculated using data provided by the companies and drivers interviewed). Drivers are paid for 24 hours for each day worked (as indicated on the pay slips collected and in accordance with the terms of the 3F collective agreement). For the typical profile used in this study, a total of 480 hours has been estimated, i.e. 20 working days. This arrangement more than covers drivers for the overtime worked (between 50 and 55 hours a week, according to the managers of the companies we met with). In addition, drivers receive a mileage allowance of 0.5758 DKK/km (0.08€/km), and an allowance for work on weekends or public holidays (18.83 DKK/hour).

Travel allowances are set at 2.92€/hour and are paid for each hour of paid work, as reflected on all the pay slips we collected.

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

Type profile of an international driver - Denmark - 2021					
Characteristics	<p>International driver in short and medium distance.</p> <ul style="list-style-type: none"> - Danish international drivers return home every weekend. - The main markets are Germany and Sweden. The typical profile chosen is that of a driver who carries out most of his activity in intra-Europe (southern Europe). - Six weeks of paid holidays, taken in full. - Profile of an international driver under a Danish contract paid 480h or 20 days. - Remuneration consisting of a fixed basic salary in accordance with the collective agreement in force (basic salary + kilometre income), supplemented by a variable part, made up of travel allowances, not subject to contributions and taxes. - Travel allowances are 2.92 €/h and are paid for all hours (480h in this standard profile). - Holiday allowance paid by the employer to a paid leave fund equivalent to 12.5% of monthly salary. This is subject to income tax and the AM-bidrag wage-earner social contribution. It is paid during the drivers' paid holidays. - Seniority of 7 years retained. 				
Kilométrage annuel réalisé	117,000 km				
Nombre de jours de travail par an	213				
Nombre de semaines d'activité par an	43				
Nombre d'heures de conduite par an	1,980				
Cost breakdown of a typical Danish international driver in 2021					
Reconstitution of a pay slip					
EMPLOYER			EMPLOYEE		
Gross salary	€/month	3,668.57 €	Gross salary	€/month	3,668.57 €
Fixed gross salary according to seniority (480h/month)	€/month	3,000.00 €	Fixed gross salary according to seniority (480h/month)	€/month	3,000.00 €
Mileage income - (km outside Denmark, or 75% of total mileage)	€/month	668.57 €	Mileage income - (km outside Denmark, or 75% of total mileage)	€/month	668.57 €
Social contributions		234.80 €	Social contributions		306.22 €
ATP -work related supplementary pension		25.46 €	ATP -work related supplementary pension		12.73 €
AES - occupational accidents and diseases		173.34 €	AM-bidrag - contribution to the labour market	8.00%	293.49 €
AUB - apprenticeship and training		36.00 €			
Feriepenge - holiday pay	12.50%	458.57 €	Salary after social contributions		3,362.36 €
			Income tax and local incomes		1,202.31 €
Gross salary subject to employer contributions		3,903.37 €	Salary after social contributions and taxes		2,160.04 €
Travel allowances for an actual working month, 2,92 €/hour (10.5 months per year)		1,401.60 €	Travel allowances for an actual working month, 2,92 €/hour (10.5 months per year)		1,401.60 €
Monthly cost of a driver for a month of full activity		5,304.97 €	Net salary of a driver for a month of full activity		3,561.64 €
Breakdown of the annual cost of a typical Danish international driver in 2021					
Fixed gross salary + bonuses * 10.5 months		38,520.00 €	Fixed gross salary + bonuses * 10.5 months		38,520.00 €
Feriepenge - holiday pay* 12 months		5,502.86 €	Feriepenge - net holiday pay		5,062.63 €
Employer contributions * 10.5 months		2,465.40 €	Annual social contributions and taxes		18,083.27 €
Fixed gross salary subject to employer's contributions + holiday pay		46,488.25 €	Annual net salary		25,499.36 €
Travel allowances* 10.5 months		14,716.80 €	Travel allowances* 10.5 months		14,716.80 €
Total annual cost		61,205.05 €	Annual net salary		40,216.16 €
Cost of an hour of driving €		30.91 €	Average monthly net salary		3,351.35 €
Cost per kilometre €		0.52 €			

Source: CNR European studies

At the end of 2021, the annual cost of a Danish driver, as estimated by the CNR, stood at 61,205€/year, i.e. 30.91€ per hour of driving, or 0.52€ per kilometre. Take-home pay for drivers was 40,216€/year.

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

Operating conditions and costs of a 40-tonne HGV operated on long distance international routes, 2021 conditions 		
	unit	Denmark Simulation
Yearly mileage of vehicle	km	127,500
Number of operating days	days/year	232
Semitrailer/tractor ratio		1.48
Driver cost	€/year	61,205
Driver/tractor ratio		1.09
Yearly cost of vehicle financing and possession	€/year	19,806
Average consumption per 100km	litres	28.7
<i>Unit fuel cost, 2021 average**</i>	€/litre	1.1335
Fuel cost	€/year	41,477
Tyres	€/year	3,700
Maintenance-repair	€/year	6,700
Tolls and vignettes	€/year	15,400
Insurance (vehicle)	€/year	2,770
Axle tax and other vehicle taxes	€/year	518
Synthesis - cost price (excluding overhead costs)		157,085
Cost/mileage ratio per annum	€/km	1,23
Overhead costs	€/year	11,824
Synthesis - full cost price		168,908
Full cost per kilometre	€/km	1,32

Source : études CNR Europe

According to CNR calculations, the cost per kilometre of a Danish 40-tonne semi-trailer truck used on international routes, excluding overhead costs, was 1.23€. When overhead costs (estimated at approximately 7% of total costs) are factored in, the overall cost at the end of 2021 amounted to 168,908€, i.e. a per-kilometre cost of 1.32€. The CNR's calculations are in line with the information provided by Danish companies, which estimate their costs at between 1.10€/km and 1.49€/km, with a clustering around 1.35€/km for companies that operate mainly within the European Union (Southern and Western Europe). For those focused on Nordic markets (Sweden and Norway), costs are higher: approximately 2€/km (EMS vehicles).

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