



EUROPEAN STUDIES

Road freight transport in Croatia in 2020



Comité national routier (CNR)

in cooperation with Visemont

EUROPEAN STUDIES

Road freight transport in Croatia 2020 study

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WARNING

Following on from the previous study devoted to the Croatian RFT sector (covering the period between 2017 and 2018, and published in September 2018), this survey, which was conducted in 2020, 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 2021. The representative profiles given are the same as the ones used in the context of the economic conditions prevailing in 2020.

It is also important to note that this study was conducted during the Covid health crisis. Our analysis was intended to focus on pre-Covid figures, i.e. for 2019. However, during the interviews, Croatian hauliers found it difficult to make a distinction between the situation in 2020 and that of the previous year. The Covid crisis has had a definite impact on the data contained in this study. This point thus needs to be taken into account when interpreting the findings.

On 12 July 2022, the Council of the European Union approved the final legal steps for Croatia's changeover to the euro. The adoption of the single currency by Croatia will thus take effect on 1 January 2023. The conversion rate of the national currency, the HRK, was set at 7.5345 HRK for 1 euro.

The conversion rate used throughout the Croatia 2020 study is 7.50 HRK for 1 euro.

SUMMARY

The last country to join the European Union in 2013, Croatia's economy is dominated by the tertiary sector, particularly tourism. As a result, trade volume is relatively low, which is why the size and level of activity of the Croatian road freight transport (RFT) sector is rather limited.

Economically, Croatia has experienced years of high growth, driven in particular by investments in the tourism and construction sectors. The country's infrastructure is now extensive and well maintained. Croatia is also a link between the European Union and the other countries that were part of the former Yugoslavia that hope to join the EU in the future.

Like the country's manufacturing sector, Croatian RFT is dependent on foreign countries and suffers from a lack of growth. International business accounts for two thirds of total RFT activity. Its main markets are Italy, Austria and Germany. Croatian TRM companies are often small and operate as subcontractors for Italian companies or as the last link in a subcontracting chain that starts in Germany, continues through Slovenia and extends to the major haulage companies in Croatia. Faced with a shortage of drivers, Croatian haulage companies often turn to the Serbian, Bosnian, Montenegrin and Macedonian labour pools when recruiting.

This latest updated study of the Croatian RFT sector reveals a general increase in costs, with the exception of fuel, specifically in 2020. Driver productivity seems to have fallen slightly (-3.4%) while wages are growing rapidly, +5.6% in 2 years. The total cost of a 40-tonne semi-trailer truck increased by 6.4%, mainly due to a surge in the cost of tolls (+39%), maintenance and repairs (+11%), insurance (+15.5%) and the cost of vehicle ownership (+15.7%). The decrease in fuel costs in 2020 (-14.8%) has helped to offset the impact of these increases.

In conclusion, when fixed costs (estimated at approximately 7.5% of the total costs) are factored in, total costs amounted to 0.81€ per kilometre in 2020 compared with 0.77€ in 2018; this figure remains very low, consolidating the position of the Croatian sectors as one of the most competitive in Europe.

CONTENTS

| SL | IMMARY | 7 |
|----|---|-----------|
| СС | ONTENTS | 9 |
| 1. | ECONOMIC AND SOCIAL ENVIRONMENT OF THE CROATIAN SECTOR | 11 |
| | 1.1. CROATIA IN BRIEF 1.2. ROAD FREIGHT TRANSPORT IN CROATIA | 11 12 |
| | TRANSPORT AND INFRASTRUCTURE POLICY | 12 |
| | ROAD FREIGHT TRANSPORT OPERATORS | 17 |
| | THE CROATIAN RFT SECTOR IN 2019 – KEY DATA | 19 |
| | 1.3. FISCAL AND LABOUR REGULATIONS APPLICABLE TO ROAD FREIGHT TRANSPORT CROATIA | IN 22 |
| | TYPES OF COMPANY | 22 |
| | ROAD FREIGHT TRANSPORT TAXES | 22 |
| | LABOUR REGULATIONS APPLICABLE TO ROAD FREIGHT TRANSPORT | 26 |
| - | PERATING INTERNATIONALLY | 31 |
| | 2.1. OPERATING CONDITIONS AND COSTS FOR COMPANIES | 31 |
| | TRANSPORT EQUIPMENT – Use | 32 |
| | TRANSPORT EQUIPMENT – Financing | 32 |
| | FUEL | 33 33 |
| | MAINTENANCE & REPAIRS TOLLS | 33 |
| | INSURANCE | 34 |
| | AXLE TAX | 35 |
| | FIXED COSTS | 35 |
| | 2.2. EMPLOYMENT CONDITIONS AND DRIVER EMPLOYMENT COSTS | 35 |
| | EMPLOYMENT CONDITIONS | 35 |
| | NOTE ON DRIVING PERSONNEL COST FORMATION | 37 |
| | 2.3. OVERVIEW OF THE OPERATING CONDITIONS AND COSTS OF A "TYPICA INTERNATIONAL HGV | AL″ 39 |

| З. | BIBLIOGRAPHY | 41 |
|----|--------------|----|
| | | |

1. ECONOMIC AND SOCIAL ENVIRONMENT OF THE CROATIAN SECTOR

1.1. CROATIA IN BRIEF

| Capital | Zagreb |
|---|--|
| Area | 56,594 km ² |
| Population | 4,034,355 inhabitants |
| Official EU language(s) | Croatian |
| Political system | Parliamentary Republic |
| President of the Republic | Klaus Iohannis |
| Prime Minister | Florin Citu |
| Minister of Transport | Catalin Drula, since 23 December 2020 |
| Date of EU membership | 1 July 2013 |
| Date of adoption of the euro | 1 January 2023 |
| Seats in the European Parliament | 12 seats |
| European Commissioner | Dubravka Suica, Vice-President, Commissioner for Democracy and Demography |
| Real GDP growth (%) | +3.5% in 2019, -8.1% in 2020 (Eurostat) |
| Inflation (%) | +0.0% (Eurostat, 2020) |
| Unemployment rate (% of active population) | 7.5% (Eurostat, end 2020) |
| Trade balance | -8.384 billion euros (2020) |
| Gross monthly minimum wage | 4,250 HRK/month, or 567€ (as of 1 January 2021) |
| Greenhouse gas emissions | 6.0 tonnes/inhabitant (Eurostat, 2019) |

1.2. ROAD FREIGHT TRANSPORT IN CROATIA

TRANSPORT AND INFRASTRUCTURE POLICY

Transport policy

Croatia has put in place a strategic transport development plan in line with European development projects since the country applied to join the European Union in 2003. To achieve its objectives, the country received EU assistance through pre-accession aid funds until 2012 and continues to receive assistance through the Cohesion Fund and the Regional Development Fund. The current Strategic Development Plan covers the period 2017-2030 and sets out the following framework for achieving the transport targets:

- coordination of the national investment plan with the one established at EU level,
- conduct of environmental impact studies ahead of any future developments in accordance with European standards and objectives,
- channelling European aid for territorial cohesion into realistic and sufficiently mature projects, taking into account the changing needs of transport users and the changing demographics in Croatia.
- optimisation of the use of more than 10€ billion in funds, spread over two decades, in investment projects for all modes of transport and intermodal solutions.

The main objectives of the 2017-2030 plan are as follows:

- Achieving a shift in transport patterns towards public transport and emissions-neutral alternatives. This includes the coordination of public transport services in local and regional settings (trams, local buses, etc.) with national services (rail and maritime transport, regional and long-distance buses) as well as the promotion of walking and cycling.
- Achieving a shift in freight transport patterns towards rail, sea and inland waterway transport.
- Modification of the transport system (operation, organization and development of infrastructure and maintenance) based on the principle of economic sustainability.
- Reducing the impact of the Croatian transport system on the environment and climate change.
- Improving safety in the Croatian transport system.
- Improving the interoperability of the Croatian transport system (rail, road, sea, inland waterway and air transport).

In particular, the document mentions flagship projects such as:

- Motorway bypass projects for tourist centres in Dalmatia.
- Increased road capacity between Zagreb and Bjelovar, and between Varazdin and Koprivnica/Krapina.
- The construction or extension of national roads and motorways to the country's borders in order to improve connectivity with networks in bordering countries.

- Improvements to the rail freight corridor between the port of Rijeka and the main markets (Hungary, Bosnia and Herzegovina, Slovakia, Italy and Serbia).
- Modernisation of the rail network in the areas surrounding the country's largest conurbations (Zagreb, Rijeka, Split, Varazdin, Osijek).
- Expansion and promotion of the Franjo Tudman airport in Zagreb to improve the international accessibility of the Croatian capital.
- Modernisation of Dubrovnik airport and improvement of air links in South Dalmatia.
- Adapting airports to Schengen zone security standards in preparation for future membership.
- Support for the development and competitiveness of the port of Rijeka as the main Croatian maritime port.
- Improvements to other modes of transport in the areas surrounding maritime ports (freight and passengers) to ensure better integration with port facilities.
- Improvements to river transport links between the Drava and Sava rivers.
- Development of the port of Slavonski Brod, which connects not only the inland regions of Croatia but also the hinterland of Bosnia and the port of Sisak.

Transport infrastructure and use

| Modal split of fr | eight transport in | % (based on t-km) | |
|-------------------|--------------------|-------------------|--|
| | | | |

| 2019 | Road | Rail | Inland waterways |
|-------------------|-------|-------|------------------|
| European Union | 77.4% | 22.6% | 5.6% |
| Croatia | 22.8% | 70.7% | 6.5% |
| Source : Eurostat | | | |

Source. Eurostat

Several pan-European corridors and their offshoots, which were identified in 1997 at the European Ministerial Conference in Helsinki, pass through Croatia. These include the corridor linking Central Europe and the Middle East, while the offshoots of Corridor V linking Northern and Southern Europe have Croatian ports as their end points. The latter have long been used by a number of landlocked European countries, such as Austria, Hungary, Slovakia and the Czech Republic, as well as by neighbouring Bosnia-Herzegovina.

Transport infrastructure, especially links between the coast and the interior of the country, is a matter of particular importance in Croatia because of its geographical configuration and the way its territory is divided up. When it comes to transport, cooperation between Croatia and Bosnia and Herzegovina is important in this respect, particularly because of Bosnia and Herzegovina's extremely short coastline, which divides Croatian territory in two at Neum, making it difficult to connect the coastal region of Dubrovnik with the rest of Croatia. The construction of a bridge and road across the Pelješac peninsula will link the region of Dubrovnik to the rest of the country in the very near future. After several years of planning, this construction project financed by European Union funds got underway in 2018 and will be operational in 2022. Road transport is the most developed form of transport in Croatia and accounts for the largest number of passengers and goods. The motorway network is well developed and contributes significantly to trade both within the country and with other countries. Some 1,000 km of motorways have been built since 2000, particularly along international corridors.



Croatia's transport network

(Dark green: toll roads; Pink: expressways; Red: national roads)

The Croatian rail network comprises 2,617 km of tracks, or 1,541 inhabitants per kilometre, a ratio that is comparable to that of Switzerland. However, 90% of railway lines are single-track and only 36% of lines are electrified. Nearly 55% of the network is dedicated to international transport. Of these 2,617 km of track, only 5.4% are capable of reaching speeds between 141 and 160 km/h, 17% have a maximum speed above 100 km/h and 37.5% have a maximum speed below 60 km/h.

As the Croatian state has concentrated most of its efforts on the road network, the rail network has long suffered from under-investment and ageing infrastructure. Apart from a few urban lines, Croatia has resorted since the 1990s to closing lines that have become unusable

and unprofitable and to performing maintenance work to avoid the closure of other more important lines.



Legend (in order of appearance on the original legend): Major international line. Secondary international line. International feeder line. Regional, Local, Decommissioned line, Not in use

Source: Nacionalni program željezničke infrastrukture za razdoblje 2008. do 2012. godine (<u>Croatian</u> <u>Official Gazette</u>) (Narodne novine 31/2008)

Sea ports are a particularly important part of the transport network. The main ports are Rijeka and Ploče, through which most of the transport from Bosnia and Herzegovina takes place. The



Source : https://blog.dickandboat.com/voyage-croatie-fiche-technique/

other Croatian ports are primarily passenger ports, which also provide links between the mainland and the islands.

Croatia has nine airports. The country's main airport is in the capital Zagreb, while the other airports, located in Split, Dubrovnik, Zadar de Pula, as well as those located on the islands of Krk-Rijeka, Brac and Losinj are mainly used during the summer tourist season. Osijek airport offers flights to and from the Croatian interior.

Civil airports in Croatia



Source : https://blog.clickandboat.com/voyage-croatie-fiche-technique/

The country has 804 km of waterways, with international shipping concentrated on the Danube, whose main port is Vukovar, and to a lesser extent on the Drava and Sava rivers. It should be noted that the Danube river waterway which flows along the Croatian border is part of the Pan-European Transport Corridor VII. The proposed Danube-Sava Canal is expected to connect these two waterways by 2030.

| Transport Infrastructures of Croatia | | | | | | | | | | |
|--------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------------|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
| Length of national routes | 6,811 km | 6,843 km | 6,581 km | 6,711 km | 6,723 km | 6,758 km | 6,937 km | 6,969 km | 7,019 km | 7,049 km |
| of which highways | 1,244 km | 1,254 km | 1,254 km | 1,289 km | 1,290 km | 1,310 km |
| Other provincial and local roads | 21,278 km | 21,313 km | 18,855 km | 18,814 km | 18,765 km | 18,638 km | 18,507 km | 18,543 km | 18,362 km | 18,354 km |
| Length of rail network | 2,722 km | 2,722 km | 2,722 km | 2,722 km | 2,604 km | 2,617 km |
| of which electrified | 0,984 km | 0,984 km | 0,984 km | 0,985 km | 0,970 km |
| Length of inland natural waterways | 805 km | 1,017 km | 1,017 km | 1,017 km | 1,017 km | 1,017 km | 1,017 km | 1,017 km | 1,017 km | 1,017 km |
| | | | | | | | | | Sou | irce : Eurostat |

ort Infrastructures of Croatia

ROAD FREIGHT TRANSPORT OPERATORS

Institutional stakeholders

Ministry of the Sea, Transport and Infrastructure

The Ministry of the Sea, Transport and Infrastructure (specifically its RFT Division) draws up national regulations and planning documents for the RFT sector. It implements the country's transport policy.

It has a wide variety of tasks:

- Development and implementation of Croatia's national transport and infrastructure policy.
- Maintenance and development of an efficient, safe, competitive, environmentally friendly and flexible transport system that provides users with a wide range of options.
- Liberalisation of the legal and economic environment in the transport and infrastructure sector in accordance with EU requirements.

Department of Road Transport, Transport Infrastructure and Inspection

The department is responsible for overseeing the implementation of EU and national regulations in the area of road traffic, road traffic safety and the transport of goods, including dangerous goods.

It takes action to eliminate irregularities and shortcomings identified in the course of inspections and monitors the implementation of solutions that have been approved by the public authorities.

Senior management conducts inspections and oversees the application of the following laws:

- Road Transport Act (OJ 178/2004, 48/2005, 151/2005, 111/2006, 63/2008, 124/2009, 91/2010, 112/10),
- Law on working hours, mandatory leave for mobile workers and road traffic monitoring devices (OJ 60/2008, 124/2010),
- Transportation of Dangerous Goods Act (OG 79/2007),
- Road Safety Act (OJ 67/08, 48/10), in particular Article 4 (paragraph 2) and Article 281.

In order to implement road traffic inspection and road safety measures, positions of road traffic inspectors have been established within the department.

Professional RFT organisations

Croatian Road Transport Association (TRANSPORTKOMERC)

Founded in 1958 and based in Zagreb, Transportkomerz was the leading Croatian association both in the areas of road freight transport and of road passenger transport. Transportkomerc was a member of the IRU until 2019.

In 2019, due to financial problems following the loss of some of its leading members, Transportkomerc ceased to represent the sector and handed over to the Croatian Chamber of Commerce.

HGK – Croatian Chamber of Commerce

On 28 November 2019, the Croatian Chamber of Commerce took over the activities of Transporkomerc and became the sole association representing the RFT sector. It became a member of the IRU at the beginning of 2020.

When contacted in the summer of 2020, the HGK was in the process of organising its activities as an "RFT association" and declined to answer the CNR's questions. The CNR will meet with the Chamber's officials in the course of a future survey of the Croatian RFT sector.

Trade union organisations

Union of Croatian Drivers (Sindikat Hrvatskog Vozaca)

Founded in 2008, the Union of Croatian Drivers is a member of the IUCR (which it chaired in 2022) but not of the ETF. The union is responsible for representing drivers throughout the RFT sector. It liaises between drivers and employers within the largest Croatian haulage companies. It also participates in cooperation programmes at the European level through the "Together to the Goal" initiative.

THE CROATIAN RFT SECTOR IN 2019 - KEY DATA

Structure of the Croatian RFT sector in 2019

| 2019 | Goods transported | Tonne-kilom | neters achieved | Average distance | Vehicle.kilometres achieved |
|---|----------------------|--------------|-----------------|------------------|--------------------------------|
| 2019 | thousand tonnes | million t.km | % | km | million of vehicle.km |
| TOTAL | 81,125 | 12,477 | 100.0% | 154 | 824 |
| Domestic transport | 66,203 | 4,312 | 34.6% | 65 | 335 |
| International tranport | 14,922 | 8,166 | 65.4% | 547 | 489 |
| International transport of goods loaded in Croatia | 5,616 | 2,839 | 22.8% | 506 | 175 |
| International transport of goods unloaded in Croatia | 4,860 | 2,657 | 21.3% | 547 | 159 |
| Cross-trade | 3,537 | 2,409 | 19.3% | 681 | 139 |
| Cabotage | 909 | 261 | 2.1% | 287 | 16 |

Structure of the Croatian RFT sector in 2019

Source : Eurostat

Accounting for more than 65% of its total activity, the Croatian sector has one of the highest international activity rates in Europe. On the other hand, with average distances of approximately 500 km in the case of bilateral activity and less than 700 km in the case of cross-trade demonstrate, Croatian RFT remains distinctly regional in scope, the area covered by the Croatian sector being mainly the countries of the former Yugoslavia, Italy, Austria and southern Germany. Representing 2.1% of total activity in 2019, Croatian cabotage is very much a sideline.

Evolution of the Croatian RFT sector

| | Evolution of the Croatian RFT sector in million tonne-kilometres | | | | | | | | | | | | | |
|-------------------------|--|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--|--|
| In million t-km | | | 2011 | 2012 | | | | | 2017 | | | AAGR* | | |
| TOTAL | 9,426 | 8,780 | 8,926 | 8,649 | 9,133 | 9,381 | 10,439 | 11,337 | 11,834 | 12,635 | 12,477 | 2.84% | | |
| Domestic transport | 5,125 | 4,547 | 4,375 | 4,145 | 4,284 | 3,931 | 4,055 | 3,986 | 4,199 | 4,235 | 4,312 | -1.71% | | |
| International transport | 4,301 | 4,233 | 4,552 | 4,504 | 4,849 | 5,450 | 6,384 | 7,351 | 7,635 | 8,400 | 8,166 | 6.62% | | |
| Source : Eurostat | | | | | | | | | | | | | | |

*Average annual growth rate

Unlike other eastern European sectors, activity within the Croatian sector has increased only modestly since the end of the 2008 economic crisis. Over the last ten years, international activity has posted an average growth rate of 6.62% (comparable to that of neighbouring Slovenia but only half the rate achieved by the Romanian sector), while domestic activity is struggling to reach its pre-crisis level, with an average fall of 1.71%/year over the same period.

Cabotage

| In million tonne-kilometres | 2015 | 2016 | 2017 | 2018 | 2019 |
|-------------------------------|------|------|------|------|---------------|
| Cabotage under Croatian flag | 19 | 52 | 161 | 186 | 261 |
| in Allemagne | 19 | 47 | 111 | 108 | 156 |
| in Italy | | | | 17 | 45 |
| in Austria | | | 22 | 48 | 39 |
| Share of cabotage in Croatian | | | | | |
| transport (%) | 0.2 | 0.5 | 1.4 | 1.5 | 2.1 |
| | | | | Sou | rce: Eurostat |

Cabotage under Croatian flag - Total and the 3 main countries

The lack of data available for the Croatian cabotage means that it is impossible to evaluate its long-term development. According to the hauliers we met with in Croatia, this activity is takes place primarily in Slovenia, southern Germany and Italy, but companies do not declare their operations in Slovenia as cabotage because of the proximity between the two countries and the fact that the past regulations allowed them to engage in cabotage freely without being obliged to report such activity.

| Cabotage in Croatia | | | | | | | | | | | | | |
|--|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|
| In million tonne-kilometres | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | | |
| Cabotage in Croatia | 3 | 2 | 1 | 1 | 3 | 1 | 1 | 7 | 10 | 17 | 12 | | |
| Penetration rate of cabotage* | 0,06% | 0,04% | 0,02% | 0,02% | 0,07% | 0,03% | 0,02% | 0,18% | 0,24% | 0,40% | 0,28% | | |
| Market share cabotage** | 0,10% | 0,08% | 0,04% | 0,04% | 0,11% | 0,04% | 0,04% | 0,28% | 0,38% | 0,65% | 0,41% | | |
| *cabotage foreign flag / (total domestic | *cabotage foreign flag / (total domestic transport + cabotage under foreign flag) 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 within Croatia is extremely limited and the volumes reported by Eurostat are negligible. We do not have data on the cabotage carried out by sectors from former Yugoslavian countries on Croatian soil.

RFT companies

There are approximately 6,000 road freight transport companies in Croatia, compared to fewer than 4,000 before the country's admission to the EU.

The vast majority of these companies are extremely small, with between 1 and 3 vehicles. Like the Italian padroncini, there are a lot of driver-bosses in Croatia. They generally work as subcontractors for large Croatian or international companies.

RFT* Business Statistics in Croatia (Latest available data in 2019)

| | 2019 |
|--|--------------|
| Number of enterprises | 5,868 |
| Number of persons employed | 25,890 |
| Number of employees | 22,227 |
| Net sales | 1.814.198 k€ |
| Costs | |
| Total amount of purchased goods and services | 1.374.489 k€ |
| of which merchandise and services for resale | 153.793 k€ |
| of which temporary work or sub-contracting | 29 k€ |
| Personnal expenses | 268.944 k€ |
| of which wages and salaries | 234.646 k€ |
| of which social security costs | 34.298 k€ |
| Gross operating profit | 257.110 k€ |
| * RET companies as in European Nomenclature NACE ReV2 - Classe H4941 | |

* RFT companies as in European Nomenclature NACE ReV2 - Classe H4941

Source : Statistical office of Croatia

Vehicle fleet

There is little data available on RFT vehicles in Croatia, the only information available being that supplied by Eurostat. According to this data, there were almost 13,800 road tractors and 15,500 semi-trailers in the country in 2020. The number of 40-tonne semi-trailer trucks per company is small (between 2 and 3), a figure that is nevertheless borne out by what was reported to us in the course of our interviews.

| Vehicle Statistics in Croatia | | | | | | | | | | |
|-------------------------------|--------------------|---------|---------|---------|---------|---------|------------------|--|--|--|
| | | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | | | |
| | Total | 9,329 | 10,443 | 11,334 | 12,229 | 12,976 | 13,781 | | | |
| | Less than 2 years | 1,353 | 1,735 | 1,866 | 1,941 | 1,936 | n/a | | | |
| Road tractors | 2 to 5 years | 1,573 | 1,991 | 2,171 | 2,481 | 2,881 | n/a | | | |
| Road tractors | 5 to 10 years | 4,070 | 4,287 | 4,648 | 4,329 | 3,961 | n/a | | | |
| | 10 to 20 years | 2,238 | 2,325 | 2,531 | 3,339 | 4,003 | n/a | | | |
| | More than 20 years | 95 | 105 | 118 | 139 | 195 | n/a | | | |
| | Total | 29,473 | 30,229 | 30,993 | 32,126 | 33,173 | n/a | | | |
| | Less than 2 years | 1,181 | 1,491 | 1,656 | 1,850 | 1,975 | n/a | | | |
| Lorries > 3.5 tonnes | 2 to 5 years | 1,394 | 1,469 | 1,442 | 1,646 | 1,979 | n/a | | | |
| Lornes > 3.5 tonnes | 5 to 10 years | 7,223 | 6,643 | 6,015 | 5,048 | 3,734 | n/a | | | |
| | 10 to 20 years | 13,654 | 14,391 | 15,209 | 15,880 | 16,834 | n/a | | | |
| | More than 20 years | 6,021 | 6,235 | 6,671 | 7,702 | 8,651 | n/a | | | |
| | Total | 107,381 | 116,001 | 125,731 | 137,049 | 147,501 | n/a | | | |
| | Less than 2 years | 14,680 | 17,223 | 20,016 | 21,035 | 21,191 | n/a | | | |
| Lorries <= 3.5 tonnes | 2 to 5 years | 10,149 | 13,575 | 15,684 | 19,625 | 22,934 | n/a | | | |
| Lornes <= 5.5 torines | 5 to 10 years | 34,322 | 31,508 | 30,140 | 28,428 | 27,795 | n/a | | | |
| | 10 to 20 years | 40,031 | 44,652 | 49,483 | 55,404 | 61,765 | n/a | | | |
| | More than 20 years | 8,119 | 9,043 | 10,408 | 12,557 | 13,816 | n/a | | | |
| Semi-trailers | Total | n/a | n/a | 12,927 | 13,803 | 14,629 | 15,517 | | | |
| n/a : not available | | | | | | S | ource : Eurostat | | | |

21

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

TYPES OF COMPANIES

| Types of companies in Croatia and their main characteristics | |
|---|------|
| Partnerships | |
| Self-employed Trader (Poduzetnik) | |
| Number of partners and associates: A single natural person | |
| Minimum and/or maximum capital: no minimum capital required | |
| Responsibility of partners: Responsible for all assets | |
| Limited liability companies | |
| Limited liability company (Društvo s ograničenom odgovornošću or d.o.o.) | |
| Number of partners and associates: one or more | |
| Minimum and/or maximum capital: 20,000 HRK (2,667 €) minimum | |
| Liability of shareholders: the liability of shareholders is limited to the value of their investments | |
| Joint stock company (Dioničko društvo or d.d.) | |
| Number of partners and associates: one or more | |
| Minimum and/or maximum capital: 200,000 HRK (26,667 €) minimum | |
| Liability of shareholders: the liability of shareholders is limited to the value of their investments | |
| Joint partnership or Partnership (Javno trgovačko društvo or j.t.d) | |
| Number of partners and associates: at least 2 partners/shareholders | |
| Minimum and/or maximum capital: no minimum capital required | |
| Responsibility of partners: each partner has unlimited responsibility with respect to their own asse | ets |
| Limited partnership (Komanditno društvo or k.d.) | |
| Number of partners and associates: at least 2 partners/shareholders | |
| Minimum and/or maximum capital: no minimum capital required | |
| Responsibility of partners: partners are not responsible for each other | |
| Source : Objectifimport ex | port |

ROAD FREIGHT TRANSPORT TAXES

Corporate tax

As regards corporate tax, there has been no significant change since the last Croatian RFT study, in 2017. As a reminder, the corporate tax rate in Croatia fell from 20% in 2017 to 18% in 2018. The rate has remained unchanged since then. A reduced rate of 10% applies to small businesses (businesses whose annual turnover does not exceed 7.5 million HRK or 1,000,000€)

Small businesses (turnover less than 7.5 million HRK) and taxpayers who fall within the scope of the cash accounting system may choose to pay corporate income tax based on cash flow, instead of based on the accrual accounting system.

A particularity of the situation in Croatia is that only 50% of allowance costs are tax deductible (previously 30%).¹ Also, only 50% of the costs related to company vehicles (excluding insurance costs and interest) became tax deductible in 2020 if they are not declared as benefits in kind for the employee.

VAT

The changes made to the VAT Act in 2016 came into effect in three stages. Most of the changes were implemented as of 1 January 2017, but others were introduced beginning on 1 January 2018 and 1 January 2019.

The standard VAT rate has remained at 25% and there have been no changes to the reduced rate of 5% on basic necessities such as bread, milk, school books, medicines and other medical equipment, daily newspapers and cinema tickets.

Catering services are now subject to a rate of 25% (previously 13%). A rate of 13% applies to accommodation services (breakfast must be included as part of the service), the press, oils and other fats of animal or vegetable origin, water supply services (except bottled water), electricity, certain agricultural supplies such as seeds, pesticides, fertilisers, municipal waste collection, live animals, meat and fish, fruit and vegetables, as well as artistic and intellectual goods.

On 1 January 2018, the VAT registration threshold increased from 230,000 HRK to 300,000 HRK (i.e. 40,000€).

As of 1 January 2020, the standard rate of VAT was meant to be reduced to 24%. This measure was expected to increase the annual disposable income of Croatian households by approximately 872 Croatian HRK on average (116€). The implementation of this measure was delayed indefinitely due to the beginning of the Covid crisis in 2020, which caused a drop-off in government revenues and an increase in health-related expenditure.

¹ <u>http://newsletters.usdbriefs.com/2017/Tax/WTA/170127_2.pdf</u>

Axle tax or annual fee for the use of public roads (Pravilnik o visini godišnje naknade za uporabu javnih cesta što se plaća pri registraciji motornih i priključnih vozila)

The Croatian authorities have completely overhauled the regulations regarding the funding of roads. A new "annual levy for the use of public roads" was introduced in 2018 and replaced the previous motor vehicle tax, which was a one-time fee that was paid when registering a specific vehicle.

The new fee is paid locally, either when registering a vehicle for the first time, or when the vehicle is being tested in subsequent years. It goes directly towards the budget of the local authorities, according to a formula that divides the revenue between the town where the company's headquarters are located, towns with more than 35,000 inhabitants in the same region as the headquarters, the regional capital and the city of Zagreb.²

The law stipulates that the calculation is based on a set of coefficients broken down by vehicle type, number of axles, gross vehicle weight and type of fuel. This coefficient is multiplied by a fixed basic amount, which is currently set at 215 HRK, or 28.66€.

The coefficient for a truck is 28.16, which translates into an annual fee of 6,054.40 HRK or 807.25€.

Based on our interviews and a number of journalists specialised in this sector, Croatian companies do not view this fee as in a positive light. These companies reportedly look for ways to avoid paying the fee, which they consider to be punitive. Since the fee for the tractor unit alone is relatively low, Croatian companies tend to register their semi-trailers or rent them in Slovenia where the annual cost is only 120-150 euros.

Tolls – Cestarina

Croatian motorways (the HAC and ARZ concession companies merged in June 2021) charge a toll depending on the section of road or road structure that is used for transport.

Road freight transport vehicles are included in category IV of the toll scale.

² <u>https://www.cvh.hr/gradani/propisi-i-upute/pravilnici/zakon-o-cestama/pravilnik-o-naplati-godisnje-naknade-za-uporabu-javnih-cesta-sto-se-placa-pri-registraciji-motornih-i-prikljucnih-vozila/</u>



Categories of vehicles for the purpose of calculating tolls in Croatia

Source : http://hac.hr/en/toll-rates/pricelist

Motorways (A) and expressways (D) subject to tolls:

- A1 Zagreb Split Dubrovnik
- A3 Bregana Zagreb Lipovac
- A4 Zagreb Goričan
- A5 Beli Manastir Osijek Bosnia and Herzegovina
- A6 Rijeka Zagreb
- A7 Rupa Križišće
- A10 Ploče border with Bosnia and Herzegovina
- A11 Zagreb Sisak
- D425 Ploče Karamatići

The Krk tunnel (D102) has become free of charge since the merger of HAC and ARZ.

An electronic toll collection (ETC) device can be used for paying tolls.

It is also possible to pay in advance for a pass for a particular section of motorway or to buy a prepaid card, which gives a minimum discount of 30.43% on motorways. An additional 5% reduction is granted to Euro 5 or EEV emission class vehicles while Euro 6 vehicles benefit from an additional reduction of 12%.

At the time of writing, the toll for the 482 km A1 motorway between Zagreb and Dubrovnik was 800 HRK for a 40T semi-trailer truck (106.67€, i.e. 0.22€ per kilometre). The toll for the 306 km stretch of the A3 motorway that crosses northern Croatia, connecting Slovenia and Serbia, was 449 HRK (59.87€, i.e. 0.20€ per kilometre).

All tolls (broken down by motorway and by section) are available on the Hrvatske autoceste site, the new state-owned company that manages all Croatian motorways: https://www.hac.hr/en/toll/toll-rates

Excise duty on commercial diesel fuel

In accordance with Directive 92/12/EC and 2008/118/EC, Croatia has instituted an excise duty system, in compliance with the EU minimum rate of 33€/hl.

Currently, excise duty in Croatia stands at 40.64€/hl. This amount is converted to the local currency once a year by the European Commission at the time of publication of the annual report. Over the following year, the exchange rate does not change even if the local currency loses value over the same period. This can sometimes create a situation where a Member State seems not to be in compliance with the regulations in force due to the devaluation of its currency during this period.

Carriers operating vehicles of a GVWR greater than or equal to 7.5 tonnes purchasing diesel in Croatia, may apply for a rebate of part of the excise duty since 1 January 2019. This rebate is not capped in volume. The rate of rebate corresponds to the difference between the rate of excise duty applied to diesel and the Community minimum rate applicable to diesel $(33 \notin h)$.

The net rate of excise duties applicable to commercial diesel is therefore 33€/hl.

LABOUR REGULATIONS APPLICABLE TO ROAD FREIGHT TRANSPORT

Pay rates

In the absence of a collective agreement in the RFT sector, the salaries of Croatian drivers have to comply with the national gross minimum wage.

In 2020, the Croatian gross minimum wage amounted to 4,062.51 HRK, or just over 533 euros. In 2021, this rose to 4,250.00 HRK (567 euros) before a significant increase of more than 10% in 2022 brought the minimum wage to 4,687.50 HRK, i.e. nearly 625 euros as of 1 January 2022.



Increases in the Croatian minimum wage (in euros)

At the time of Croatia's accession to the European Union in July 2013, Croatia's minimum wage was approximately 373€ per month. Thus, the Croatian minimum wage has risen 67% since the country joined the EU, less than 10 years ago.

Paid leave and other particularities

Employees are entitled to annual leave of at least four weeks per calendar year. Workers performing so-called hazardous work are entitled to at least five weeks of annual leave.

There are 14 public holidays in Croatia.

Croatian drivers have the option of taking time off for work performed on Sundays or public holidays.

Night work is defined as any work carried out between 10 p.m. and 6 a.m.

In theory, unless stipulated otherwise in the collective agreement or company agreement, an employee cannot work more than 180 hours of overtime per year; the absolute maximum allowed is 250 hours per year.

The employer must ask the employee in writing to work overtime or include a clause in his or her employment contract to that effect. If the request comes from the employee, the employer must respond in writing. If an employer asks an employee to work overtime, the employee must comply with his or her employer's request wherever possible.

A full-time worker is permitted to enter into an employment contract with another employer for a maximum period of 8 hours per week or 180 hours per year, but only with the written consent of the employer (or employers) with whom the worker has previously signed an employment contract.

Travel allowances (Dnevnice)³

The amount of travel allowances depends on the country of destination and is often expressed euros. For European countries, these allowances range between $30 \in$ and $80 \in$ per day. Travel allowances are not subject to tax or social security contributions. The amounts of travel allowances are listed in the table below.

| | Amount of daily allowances according to visited country Croatia 2021 | | | | |
|--------------------|---|--|--|--|--|
| Country | Amount | | | | |
| Albania | 30€ | | | | |
| Germany | 70€ | | | | |
| Austria | 70€ | | | | |
| Belgium | 70€ | | | | |
| Belarus | 50 \$ | | | | |
| Bosnia-Herzegovina | 30€ | | | | |
| Bulgaria | 40€ | | | | |
| Cyprus | 60€ | | | | |
| Czechia | 50€ | | | | |
| Denmark | 70€ | | | | |
| Spain | 60€ | | | | |
| Estonia | 40€ | | | | |
| Finland | 70€ | | | | |
| France | 70€ | | | | |
| Greece | 60€ | | | | |
| Hungary | 50€ | | | | |
| Ireland | 70€ | | | | |
| Italy | 70€ | | | | |
| Latvia | 40€ | | | | |
| Lithuania | 40€ | | | | |
| Luxembourg | 80€ | | | | |
| North Macedonia | 30€ | | | | |
| Malta | 60€ | | | | |
| Norway | 80€ | | | | |
| Netherlands | 70€ | | | | |
| Poland | 40€ | | | | |
| Portugal | 60€ | | | | |
| Romania | 40 € | | | | |
| Serbia | 30€ | | | | |
| Slovakia | 50€ | | | | |
| Slovenia | 50€ | | | | |
| Sweden | 80€ | | | | |
| UK | 70€ | | | | |
| Turkey | 50€ | | | | |
| Other (Europe) | 35€ | | | | |

Source : Strucne Informacije 25. Sijecnja 2021

³ <u>https://www.rrif.hr/clanakfull-20761/</u>

Social security contributions

| Social contributions applicable to driving staff in 2019, valuable also for 2020 and 2021 | Employer | Employee |
|---|----------|----------|
| Contribution for health, old-age and maternity | 16.5% | 0.0% |
| Pension | 0.0% | 20.0% |
| Unemployment | 0.0% | 0.0% |
| Accidents at work and occupational diseases | 0.4% | 0.0% |
| Total | 16.9% | 20.0% |

Social Constibutions in Croatia

Source: Cleiss, Ministry of Social Affairs of Croatia

In case of strenuous or dangerous working conditions, the employer is required to pay an additional contribution, which is described as "accidents at work or occupational disesases" in the table above. The contribution rate varies depending on the length of insurance period covering strenuous conditions and depending on whether the employee is insured solely under the 1st pillar or also under the 2nd. The case presented above, involving a contribution rate of 0.4%, relates solely to lorry drivers and is based on interviews with Croatian company managers.

The statutory pension scheme is designed around two main pillars. There is a 3^{rd} pillar, which is optional. All employees are compulsorily enrolled in the 1^{st} pillar (pay-as-you-go system). Enrolment in the 2^{nd} pillar (capitalised system) is mandatory for persons under 40 years of age. Employees who were 50 years of age or older as of 1 January 2002 are insured only under the 1^{st} pillar; those who were 40 to 50 years of age on that date were given 6 months to choose whether or not to enrol in the 2^{nd} pillar. If an employee is enrolled in the 2^{nd} pillar, 5% of the amount of their contribution goes to it. Employees can only be enrolled with a single 2^{nd} -pillar pension fund.

Personal income tax and council tax

Personal income tax regulations were comprehensively overhauled in the course of 2020 in order to simplify the calculation and transparency of such taxes vis-à-vis foreign institutions.

The first 4,000 HRK per month or 48,000 HRK per year (about 533.33€ per month, or 6,400€ per year) of annual income from paid employment after payment of social security contributions is not subject to tax. Taxable income, i.e. annual salary income above 48,000 HRK and up to 360,000 HRK per year, is taxed at 20%. Above 360,000 HRK per year, the tax rate rises to 30%.

Widespread one-off bonuses based on sectoral or company agreements (such as Christmas bonuses or holiday bonuses) are eligible for income tax exemption up to 3,000 HRK. "Performance bonuses", based on an employee's results (up to a maximum of 5,000 HRK per

year) may also be tax-exempt. In both of these cases of tax exemption, the prior agreement of the local tax authorities in the area where the company's registered office is located is required. Since most of the RFT companies surveyed did not have such a company agreement in place, these two instances of exemption are not taken into account in this study.

Other income (property income, other income from assets, dividends, etc.) is subject to a 10% income tax rate from the first kuna (HRK).

A local authority surcharge of between 0% and 18% is generally added to national income tax. The local authority with the highest rate is the city of Zagreb. This surcharge is applied to the amount of income tax calculated on the basis of an individual's taxable income.

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

This part of the study describes the economic and social conditions prevailing at the end of 2020, 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 Croatian 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 Romanian 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 12 Croatian road freight transport companies involved in long-distance transport operations, mainly internationally. Among the companies visited, all were able to provide the information requested. Thus, the 12 companies selected for this study have the following characteristics:

| | Number of tractors | Number of semi-trailers | Main markets | Number of drivers | Turnover |
|------------|--------------------|-------------------------|----------------------------|-------------------|-------------|
| Company 1 | 7 | 9 | EU | 8 | 612,000€ |
| Company 2 | 11 | 9 | EU, I, H, SLO, HR, PL, BiH | 8 | 698,721€ |
| Company 3 | 51 | 60 | DE, FR, ES, PT | 58 | 5 341,209€ |
| Company 4 | 8 | 9 | AT, SRB, HU | 9 | 598,156€ |
| Company 5 | 10 | 10 | DE, NL, B | 11 | 1 186,103 € |
| Company 6 | 11 | 16 | EU | 12 | 1 314,049 € |
| Company 7 | 5 | 5 | SI,HR, SRB, MK | 6 | 444,000€ |
| Company 8 | 16 | 22 | HR, D, I, A, CH | 18 | 1 488,000 € |
| Company 9 | 28 | 34 | RO, BiH, SRB | 28 | 2 653,000 € |
| Company 10 | 1 | 1 | SK, Ukraine | 1 | 100,000€ |
| Company 11 | 40 | 50 | EU, CH, UK | 52 | 5 843,000€ |
| Company 12 | 30 | 35 | IT, AT, DE | 31 | 3 025,000 € |

The companies visited for this study are extremely diverse in terms of their size and structure. They are all specialised in international RFT, and most are subcontractors or subsidiaries of foreign companies, often based in western EU countries. Small companies are often subcontracted by companies who are themselves subcontractors of larger foreign and Romanian companies.

To enable a comparison with the data from other CNR 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 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 Croatia, vehicles are operated on a relatively intensive basis. The number of days vehicles are operated varies between 227 and 260 days, with a clustering around 250 days per year, up from a figure of 235 days in 2018.

The average annual mileage travelled by the vehicles of the hauliers we met with is between 118,500 km and 148,000 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 133,500 km per year per vehicle, which is practically unchanged since the last study. This stagnation in terms of mileage, combined with an increase in the number of operating days, reflects a slight decrease in the average distance travelled.

The length of time tractors are kept has remained unchanged at approximately 7 years. Nevertheless, it should be noted that some large companies report that they are in the process of changing their vehicle acquisition strategy by replacing traditional leasing contracts with long-term leasing contracts, with no purchase option. This would allow them to renew their fleet of tractor units every 3 to 5 years. Small businesses use vehicles for approximately 8 years on international routes within the EU, followed in some instances by several years on domestic routes, as well as routes in the former Yugoslav republics, before reselling them, mainly on Bosnian and Serbian markets. Some Croatian carriers apparently also buy used vehicles from Germany, Austria and Italy.

Thus, to facilitate comparison with other countries, CNR has opted for an average estimated ownership period for road tractors of 7 years, i.e., 5 years of leasing and a further 2 years of full ownership.

In the case of semi-trailers, hauliers keep them for a period in excess of 11 years.

The tractor/semi-trailer ratio reported during company surveys is 1.19, slightly up from the figure of 1.16 reported in the previous study.

TRANSPORT EQUIPMENT – Financing

The most widespread form of vehicle financing in Croatia is 60-month leasing contracts with an initial payment of approximately 10% of the vehicle price and a purchase option at the end of the contract for 10% of the new vehicle price.

The average purchase price of a Euro VI tractor based on interviews with Croatian carriers is 90,000€, an increase of 10% compared to the average price recorded in 2018. The purchase of expensive makes and models in the Croatian sector seems to be determined by the need

to offer a high level of service to foreign customers. The rising price of new vehicles has prompted some small Croatian hauliers to use the second-hand market to buy late model tractor units at half the cost of new vehicles, but this phenomenon remains rare.

The purchase price of a semi-trailer is estimated at 23,700€. These are usually purchased using 60-month leasing contracts, with an option to purchase.

The interest rates on the leasing market range from 1.8% to 2.7%.

FUEL

The average unit cost of fuel at the pump in 2020 (for the Croatian sector) was $0.9277 \in$ per litre according to official figures published in the European Commission's Oil Bulletin. After taking into account the partial refund of excise duties in Croatia, the CNR estimates the average price of fuel at the pump in 2020 to be $0.8510 \in$.

Croatian companies source most of their fuel domestically (60%), which includes both fuel purchased at petrol stations and bulk purchases with a discount of 3 euro cents. The remainder is purchased in Hungary (20%), as well as at service stations across Europe (particularly in Luxembourg; this share will be weighted at 20% in the "shopping basket" below) by means of contracts with distributors.

Fuel consumption is monitored very closely by hauliers, who use it as the main means of achieving their narrow operating margin. Average consumption is estimated at 28.2 I/100 km and is highly dependent on the countries crossed.

Based on the fuel shopping basket calculated by the CNR (using information provided by companies), the price of one litre of fuel was 0.8251€.

MAINTENANCE & REPAIRS

The cost of maintenance and repairs in the Croatian sector is difficult to calculate due to the widely varying costs and approaches reported by the companies surveyed.

It varies between 2,780€ and 7,000€ per year per vehicle. Although large, these differences can often be explained by widely divergent vehicle purchasing policies. More generally, and based on a typical company profile, the CNR estimates that annual maintenance and repair costs range from 3,400€ for companies with their own workshop to 6,000€ for those who do not. Without an in-house garage, this cost item is estimated at 5,100€ per year per semi-trailer truck, up from the 2018 estimate of 4,600€. This case, which has been used for the purpose of our analysis, represents the situation of more than 75% of the companies surveyed.

TYRES

The annual cost of tyres ranges widely, from $2,000 \in to 5,200 \in$. 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 re-treading policies.

Based on information obtained directly from hauliers, CNR has calculated an average figure of approximately 3,235 per year per semi-trailer truck. According to experts, this average cost would seem to be inconsistent with current market realities, the intensity with which vehicles are used and the price of the equipment, which is relatively homogeneous across the European market. Thus, for the sake of consistency with other studies and in deference to expert opinion, the annual amount of 4,000 per vehicle will be used throughout this study. This amount is as close as possible to the data provided by major Croatian companies with their own internal costing system.

Based on information provided by Croatian hauliers (with all profiles and approaches taken into account), the annual cost of tyres for a 40-tonne semi-trailer truck is estimated at approximately $4,300 \in$. This represents an increase compared with the 2018 figure of $4,000 \in$.

Tyre contracts offered by the major tyre brands at a cost per kilometre of between 5 and 7 euro cents have not yet been introduced on the Croatian market.

TOLLS

The cost of tolls has risen sharply for Croatian hauliers. This cost item naturally depends on the routes taken, which in turn are determined by the location of their main customers.

Faced with the soaring cost of tolls, as is the case for most Eastern European sectors, the trend in Croatia is to directly re-invoice tolls to customers depending on the chosen route and the deadlines involved.

The annual cost of tolls ranges from 12,500€ to more than 27,000€.

In terms of the typical company profile used, this cost item is estimated at 16,700€ for a 40tonne semi-trailer truck covering approximately 133,500 km per year (90% of which on motorways and toll roads). Up by more than 39% compared to 2018, this estimated cost does not include the cost of the Eurovignette, the purchase of which is not widespread among Croatian hauliers.

INSURANCE

In 2018, CNR noted a downward trend in the cost of insurance. Since then, the cost item appears to have settled at a few hundred euros above the average for 2018. Insurance costs are broadly consistent, varying slightly in relation to company accident rates.

According to experts, the annual cost of insurance for a 40-tonne semi-trailer truck in 2020 is estimated at 3,350€/year.

AXLE TAX – MOTOR VEHICLE TAX

Under the new law on the "annual levy for the use of public roads", the method of calculating this tax is based on a table of coefficients broken down by type of vehicle, number of axles, gross weight and fuel. This coefficient is multiplied by a fixed basic amount, which is currently set at 215 HRK, or 28.66€.

The coefficient for a semi-trailer truck is 28.16, which translates into an annual levy of 6,054.40 HRK, or 807.25€.

OVERHEAD COSTS

The data collected from Croatian companies do not allow overhead costs to be calculated.

Based on expert opinion, the CNR estimates this cost item at 7.5% of the total costs.

2.2. EMPLOYMENT CONDITIONS AND DRIVER EMPLOYMENT COSTS

Employment conditions and driver pay in Croatia 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 in Italy. During this second phase, around twenty drivers, employees with Croatian contracts, volunteered 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 Croatian contract 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 with a trial period which is rarely in excess of 1 month.

Croatian drivers are entitled to a minimum of 4 weeks of paid leave, which in some special cases can reach 5 weeks. Companies offer extra days of paid leave to retain their drivers. Most drivers say they have two to three days of paid leave over and above the legal minimum and that they use them all. Most leave is taken in the summer (two to three weeks during July and August) and the remainder (approximately 10 days) during the Christmas and New Year period.

According to information obtained during interviews with drivers, they work approximately 226 days per year (i.e., 45 weeks of the year) and drive between 9,500 and 13,000 km per month, i.e. between 104,500 and 143,000 km per year. In terms of the typical company profile used in this study and based on expert opinion (which is consistent with driver reports), CNR has arrived at an estimated mileage figure of 124,500 km per year per vehicle, a decline of 3.4% compared to our previous survey.

In terms of the standard work schedule, most Croatian drivers return to base twice a month. Upon returning to base, drivers usually spend 3-6 days at home. The average length of international trips is 13 days, with Croatian drivers reporting that most of their driving takes place in Italy, Austria and Germany.

Croatian payslips do not provide any more detailed information about working hours. For virtually all drivers, work is defined in terms of driving alone. For the typical profile, the annual driving time used by the CNR is 1,960 hours is slightly down from the previous estimate of 1,980 hours. Croatian drivers also reportedly do 5-8 hours of other work per week and spend 17 nights per month away from home, often sleeping in their cabs, in many cases due to a lack of space in accommodation facilities in Italy. The concept of availability hours is not a familiar one and European social regulations continue to be viewed as merely something that needs to be learnt by heart and recited in the event of an inspection.

It is worth mentioning here that Croatian hauliers complain about the shortage of drivers and tend to prefer to hire Bosnian, Serbian and Montenegrin drivers in order to avoid the language barrier.

In terms of their schedule, Croatian drivers assigned to international duties generally spend approximately 17 nights away from home per month, with trips tending to last 2 weeks. However, working patterns reported by certain drivers diverged greatly from this pattern. Thus, some Croatian drivers were accustomed to travelling for up to five or six weeks at a time. Following the adoption of new European regulations, limiting trips to one month in length, the work patterns of these drivers have recently been modified. Companies and drivers are trying to find a way to adapt to the new regulations and the range of working patterns is broadening as a result.

Based on a review of all the various scenarios mentioned in the interviews, CNR has chosen to use the following as a typical profile: a driver carrying out trips lasting 13 days, followed by 4 days of rest at home.

Based on interviews with companies, the driver/tractor ratio is 1.074.

NOTE ON DRIVING PERSONNEL COST FORMATION

Remuneration of International drivers

The salaries of Croatian drivers have been steadily increasing for several years due to the shortage of drivers, a direct consequence of Croatian drivers moving abroad, especially to the Benelux countries and Germany.

Drivers on Croatian contracts receive a fixed monthly salary in excess of the minimum wage, i.e. approximately 650€. This amount is sometimes supplemented by small eco-friendly driving bonuses and Christmas bonuses, which add up to approximately 40€ per month.

A typical Croatian driver receives between 50€ and 70€ in travel allowances for each night spent abroad (this figure applies to most countries in which Croatian hauliers operate). This represents 1,190€ in additional income from travel allowances, which is not subject to social security contributions and taxation.

In Croatia, there are still drivers who are paid on a per-kilometre basis. They are reportedly paid 15 euro cents, plus bonuses for every additional 1,000 km driven over and above a 12,000 km monthly threshold.

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

| Standard profile of an international driver - Croatia - 2020 🛛 🔀 | | | | |
|--|---|--|--|--|
| Characteristics | Driver working internationally for over 80% of his working time Middle size international itineraries (mostly Italia, Austria, Germany) Itineraries of 13 days in average, followed by 4 days of break Paid holidays systematically taken, 2-3 weeks in summer, then about 10 days in winter Income composed of a fixed salary over the national minimum wage, completed by a variable part composed of travel allowances and eco-driving and motivation bonus Regular income on monthly basis, disconnected from the real labor quantity. The hours of work are not counted, nor ndicated on the pay slip. Travel allowances usually reflect the reality. In average, they represent 17 days of work abroad monthly for a daily amount of 50€ to 70€ depending of the country visited. | | | |
| Annual mileage achieved | 124,500 km | | | |
| Number of actual working days per year | 226 | | | |
| Number of working weeks per year | 45 | | | |
| Number of driving hours per year | 1,960 | | | |

Cost breakdown of a standard Croatian international driver in 2020

| Presentation of a standard pay slip | | | | | |
|---|---------|-------------|--|---------|------------|
| EMPLOYER | | | EMPLOYEE | | |
| Gross Salary | €/month | 690.00€ | Salaire Brut | €/month | 690.00€ |
| Fixed gross salary | €/month | 650.00€ | Fixed gross salary | €/month | 650.00€ |
| Other bonuses and extrases on monthly basis | €/month | 40.00€ | Other bonuses and extrases on monthly basis | €/month | 40.00€ |
| Social contributions | 16.9% | 116.61€ | Social contributions | 20.0% | 138.00€ |
| Contribution for health, old-age and maternity | 16.5% | 113.85€ | Contribution for health, old-age and maternity | 0.0% | 0.00€ |
| Pension | 0.0% | 0.00€ | Pension | 20.0% | 138.00€ |
| Unemployment | 0.0% | 0.00€ | Unemployment | 0.0% | 0.00€ |
| Accidents at work and occupational diseases | 0.4% | 2.76€ | Accidents at work and occupational diseases | 0.0% | 0.00€ |
| | | | Salary after payment of social contributions | | 552.00€ |
| | | | Personal income tax after deductions | | 3.73€ |
| | | | Local surcharge (18%) | | 0.67€ |
| Salaire brut chargé | | 806.61€ | Net salary after payment of social contributions and income tax | | 548.27€ |
| Travel allowance of a month of full service (11 months in a year) | | 1,190.00€ | Travel allowance of a month of full service (11 months in a year) | | 1,190.00€ |
| Monthly cost of a driver for a month of full activity | | 1,996.61€ | Net income of a driver for a month of full activity | | 1,738.27€ |
| Breakdown of a | nnua | cost of a s | tandard Croatian driver in 202 | 20 | |
| Fixed gross salary + bonuses * 12 months | | 8,280.00€ | Fixed gross salary + bonuses * 12 months | | 8,280.00€ |
| Employer's social contributions * 12 months | | 1,399.32€ | € Employee's contributions and income tax * 12 months | | 1,700.81€ |
| Salary cost after payment of contributions * 12 months | | 9,679.32€ | 2€ Net fixed income after income tax * 12 months | | 6,579.19€ |
| Travel allowances * 11 months | | 13,090.00€ | Travel allowances * 11 months | | 13,090.00€ |
| Total annual cost | | 22,796.32€ | Annual net income | | 19,669.19€ |
| Cost of one hour of driving in € | | 11.62€ | Average monthly net income | | 1,639.10€ |
| Cost per kilometre in € | | 0.18€ | | | |

Source : études CNR Europe

CNR

Since the 2018 study on Croatian RFT sector, driver mileage and driving hours have fallen. Over the same period, total driver costs, as calculated by the CNR, increased by 7.9%. Takehome pay for drivers increased from $18\ 638\notin$ to $19\ 669\notin$, up 5.6% largely due to the increase in basic salaries and one-off bonuses. Overall, the cost of an hour of driving rose to $11.62\notin$, an increase of more than 9% compared to 2018.

2.3. 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, 2020 values | | | | |
|---|-----------|------------------------------|--|--|
| | unit | Croatie Simulation | | |
| Yearly mileage of a vehicle | km | 133,500 | | |
| Number of operating days | days/year | 250 | | |
| Semitrailer/tractor ratio | | 1.19 | | |
| Cost of one driver | €/year | 22,769 | | |
| Driver/tractor ratio | | 1.073 | | |
| Yearly cost of vehicle financing and possession | €/year | 14,002 | | |
| Average consumption per 100 km | litres | 28.2 | | |
| unit fuel price, 2020 average | €/litre | 0.8251 | | |
| Yearly fuel cost | €/year | 31,061 | | |
| Maintenance-repair | €/year | 5,100 | | |
| Tyres | €/year | 4,300 | | |
| Tolls and vignettes | €/year | 16,700 | | |
| Insurance (vehicle) | €/year | 3,350 | | |
| Axle tax and other vehicle taxes | €/year | 807 | | |
| Synthesis - cost price (excluding overhead costs) | €/year | 99,760 | | |
| Cost/mileage ratio per annum | €/km | 0.75 | | |
| Overhead costs | €/year | 8,089 | | |
| Synthesis - complete cost price | €/year | 107,849 | | |
| Complete cost per kilometer | €/km | 0.81 | | |

Source : CNR European Studies

According to CNR calculations, the cost per kilometre of a Croatian 40-tonne heavy goods vehicle used for international long-distance transport, excluding fixed costs, is $0.75 \in$ (as opposed to $0.705 \in$ in 2018), an increase of more than 6.4% compared with the previous study. This increase was largely due to a surge in driver costs (+7,9%), tolls (+39%), maintenance and repairs (+11%), insurance (+15,5%) and the cost of vehicle ownership (+15.7%). The drop in fuel costs (-14.8%) was not sufficient to neutralise the overall trend. Mileage, which has remained virtually unchanged since 2018, has had no impact on the increasing per-kilometre cost.

In conclusion, when fixed costs (estimated at approximately 7.5% of total costs) are factored in, the overall per-kilometre cost rose to 0.81 in 2020, compared with 0.77 in 2018.

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