

IMPACT OF THE NEW EU ROAD HAULAGE RULES ON COMBINED TRANSPORT

Report summary

30 November 2020

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ABOUT THIS REPORT

Objective and Scope

The revised access to market rules, alongside the new social, working and posting rules within Mobility Package 1 are a comprehensive reform for the road transport sector in Europe and will become effective from early 2022 onwards. While these “new EU Road Haulage Rules” provide a new labour and business regulatory framework of Road Haulage in Europe, they will also have an influence on Combined Transport, which uses road haulage for the “first / last mile” transport within the intermodal transport-chain.

The UIRR and the Combined Transport community have been closely following the developments and latest decisions concerning the new EU Road Haulage Rules. There are concerns regarding the potential limitations to be imposed by the new regulatory framework on the first / last mile road haulage, the additional cost effects, and the consequences for the overall competitiveness of Combined Transport when compared to long-distance Road Haulage.

The report aims to increase the reader’s awareness and understanding of potential risks and resulting effects on Combined Transport in Europe due to the changes induced by the new EU Road Haulage Rules. It builds the argumentation and narrative for a broader evidence-based corporate and political stakeholder dialogue to mitigate the negative impacts as well as to further develop the European Combined Transport sector.

Structure and Research

To examine the expected effects of the new EU Road Haulage Rules on Combined Transport, a survey including selective deep dive interviews was commissioned with responses received from 20 logistics and road transport service providers active in the European Combined Transport sector. The surveyed companies are based in 10 European countries and active both in cross-border as well as domestic Combined Transport in Europe. In addition, an in-depth review of the relevant amendments to Regulation (EC) No 1071, Regulation (EC) No. 1072, and Directive 2006/22/EC was also conducted to fully document the detailed changes and identify those with a potential impact to Road Haulage in general and Combined Transport in particular.

The report captures key findings of our primary and secondary research in three sections:

1. Assessment where and how the regulatory changes to Road Haulage introduced by the new EU Road Haulage Rules could impact the Combined Transport value chain,
2. Summary of risks and how market actors in Combined Transport expect the new EU Road Haulage Rules impacting their business, and
3. Potential effects – both regarding transported volumes in Combined Transport as well as resulting additional external costs resulting from volume changes between the different transport solutions.

Qualifications, Assumptions, and limiting Conditions

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EXECUTIVE SUMMARY

The new EU Road Haulage Rules, a comprehensive reform of the European road transport sector, will become applicable from early 2022 onwards. While there is no doubt about the positive intention for a safer, more efficient and socially responsible road transport sector, the new rules will have an impact on how Road Haulage in general and Combined Transport in particular will operate in future.

The new EU Road Haulage Rules could have an impact on cost and capacity of Road Haulage

The new EU Road Haulage Rules will trigger cost and capacity effects for both short- and long-distance Road Haulage, with short-distance Road Haulage – partner of Combined Transport – being more affected than long-distance Road Haulage – competitor of Combined Transport:

- If higher costs are passed on, Combined Transport could see a cost increase on first / last mile on road operated by non-domestic road hauliers on domestic legs. This impact could become effective immediately, once the new EU Road Haulage Rules become applicable in early 2022.
- The capacity effects for Combined Transport would be subject to the decision of each European Member States to make use of the new possibility to unilaterally suspend compliance with Article 4 of the Combined Transport Directive (92/106).

The future competitive position of Combined Transport and long-distance Road Haulage will depend on how the cost gap between the two transport solutions will develop (for details refer to chapter 2).

The new EU Road Haulage Rules could deteriorate the competitive position of Combined Transport versus long-distance Road Haulage

The risk analysis – based on the results and estimations of the surveyed companies – suggests a potential deterioration of the competitive position of Combined Transport versus long-distance Road Haulage (for details refer to chapter 3).

Effects on Combined Transport

- Short-distance Road Haulage (partner of Combined Transport) operated by non-domestic road hauliers could expect a cost increase in average of 16%.
- As a result, and if costs are passed on, end-to-end Combined Transport involving non-domestic hauliers would see additional pressure from increasing costs.
- On distances below 1'000 km and where end-to-end Combined Transport uses non-domestic road haulier cost could increase by to 9%.
- The potential decision of Member States to unilaterally suspend Article 4 of the Combined Transport Directive (CTD) would trigger a second wave of risks for Combined Transport leading to a potential capacity shortage on first / last mile on road due to the expected capacity shifts of non-domestic hauliers to long-distance Road Haulage and the inability of domestic hauliers to compensate. The capacity effect is estimated between -5 to -10% in average based on the surveyed company information.
- Additionally, costs for first / last mile could increase by +15 to +22% subject to country for those volumes, where shippers need to replace non-domestic hauliers by domestic truckers on domestic legs due to capacity constraints.

Effects on long-distance Road Haulage

- Based on the results of our survey, long-distance Road Haulage, on the contrary, is expected to have a cost increase of only 5%, as it should be able to compensate significant parts of its additional costs.
- **The new EU Road Haulage Rules** in general and – if implemented – a suspension of Article 4 of the Combined Transport Directive in particular, could trigger a capacity shift from short-distance to long-distance Road Haulage. This would increase capacity and also competitive pressure for Combined Transport

The new EU Road Haulage Rules could lead to a reverse modal shift from rail to road

Based on the surveyed market information and the respective analyses, approximately 8% of the underlying Combined Transport annual transport volume – equivalent to approximately 14.4 billion tonnes kilometres or 0.6%-points of the 7.2% of Combined Transport's market share in 2019 – could be at risk of being disrupted by a full implementation of the new EU Road Haulage Rules.

- The impact would come into effect at different points in time - 45% of the penalty due to cost increases could immediately come into effect once the new EU Road Haulage Rules are implemented as from early 2022 onwards.
- The other 55% of the penalty would be subject to the discretionary decision of all European Member States to use the regulatory option to unilaterally suspend Article 4 of the Combined Transport Directive. The effect would be triggered by both capacity as well as cost effects – it may be lower if only a few Member States decide to exercise this right.

Combined Transport could see a slower growth or even decline compared to today. In a worst-case scenario and compared to an ambitious growth path:

- Combined Transport could see a lower development of up to cumulative 1.2 trillion tonnes kilometres over 10 years (approximately 6.6x the volume in 2019 or up to 8.7%-points less market share gain).
- The missed growth opportunity of Combined Transport would trigger up to additional 49.4 million tonnes of CO₂ emissions and €31.4 billion of external costs, both over a period of 10 years.

Based on the underlying data and surveyed information, the countries with the expected highest absolute impact would be Germany and Italy, followed by France and Belgium (for details refer to chapter 4).

1. INTRODUCTION

On 15 July 2020 the new EU Road Haulage Rules were adopted as part of a comprehensive reform of the European road transport sector. It will become applicable from early 2022 onwards.

The revised access to market rules, alongside the new social, working and posting rules within Mobility Package 1 aim for a safer, more efficient and socially responsible road transport sector. The new EU Road Haulage Rules also eliminate unclear rules that have resulted in different legal interpretations and enforcement practices in the individual Member States, thus providing more legal clarity across the European Union¹.

While there is no doubt about the positive impact, the new EU Road Haulage Rules will have also an impact on how Road Haulage in general and Combined Transport in particular will be able to operate in future.

The International Union for Road-Rail Combined Transport (UIRR) engaged the management consulting firm Oliver Wyman to assess and quantify the risks of these changes from the perspective of Combined Transport. The main questions in focus were:

- Will the new legislation impose limitations on first / last mile Road Haulage?
- Is there an additional cost effect to be expected and to what extend?
- What are the consequences for the competitiveness of Combined Transport compared to long-distance Road?

The work was completed in two phases:

- Phase I (July 2020) focusing on:
 - Assessment of changes to the new regulatory framework for Road Haulage in Europe,
 - High level risk and effect identification based on interviews with Combined Transport actors, and
 - Summary of identified risks and impacts and preparation for deep-dive Phase II.
- Phase II (September – October 2020) focusing on:
 - Market survey involving 20 Combined Transport actors,
 - Risk identification including assessment of their likelihood,
 - Quantification of effects based on cases,
 - Assessment of interdependencies, and
 - Formulation of conclusions and recommendations.

The results of this report have been reviewed and discussed in detail with the UIRR.

¹ Mobility Package 1: Improvement of social legislation for professional drivers, Federal Ministry of Transport and Digital Infrastructure

2. EXPECTED CHANGES FOR COMBINED TRANSPORT DUE TO THE NEW EU ROAD HAULAGE RULES

Based on the analysis of the adopted amendments to the relevant Regulations and Directives, several changes were identified, all with a potential influence on the way Combined Transport will be able to operate in the future. The key identified changes are:

1. Both short- and long-distance Road Haulage could see changes to their business models. However, the new regulation will impact them differently, as
 - a. Short-distance Road Haulage will see both cost and capacity effects, whereas
 - b. Long-distance Road Haulage will experience mainly cost effects.
2. Combined Transport could be affected directly by changes of short-distance Road Haulage (partner in its value chain) and indirectly by changes of long-distance Road Haulage (main competitor). The effects of these changes will differ by intensity, time and by trade lanes, as:
 - a. The cost impact would become effective immediately, once the new EU Road Haulage Rules become applicable in early 2022,
 - b. The Capacity effects would be subject to the decision of each European Member State to make use of the new possibility to unilaterally suspend compliance with Article 4 of the Combined Transport Directive (92/106)², and
 - c. The future competitive position of Combined Transport and long-distance Road Haulage will depend on how the cost gap between the two transport solutions develops.

2.1. Relevant new Regulations and Directives impacting Combined Transport

While final formulation of the revised Regulations and Directive became available while the study was conducted, the full change assessment of the relevant Regulations and Directives was based on publicly available information and interim result documentation. The new EU Road Haulage Rules can be found in two Regulations and one Directive³.

² Article 4 of the Combined Transport Directive (92/106) grants that a border-crossing Combined Transport operation, carried out within the single market, shall be treated the same from end-to-end as its equivalent cross-border road transport operation

³ Following documents set the base for the new EU Road Haulage Rules:

- Regulation (EU) 2020/1055 of the European Parliament and of the Council of 15 July 2020 amending Regulations (EC) No 1071/2009, (EC) No 1072/2009 and (EU) No 1024/2012 with a view to adapting them to developments in the road transport sector
- Regulation (EU) 2020/1054 of the European Parliament and of the Council of 15 July 2020 amending Regulation (EC) No 561/2006 as regards minimum requirements on maximum daily and weekly driving times, minimum breaks and daily and weekly rest periods and Regulation (EU) No 165/2014 as regards positioning by means of tachographs
- Directive (EU) 2020/1057 of the European Parliament and of the Council of 15 July 2020 laying down specific rules with respect to Directive 96/71/EC and Directive 2014/67/EU for posting drivers in the road transport sector and amending Directive 2006/22/EC as regards enforcement requirements and Regulation (EU) No 1024/2012

To identify the relevant changes, we focused only on those, which could directly impact either:

- Short-distance Road Haulage as part of the Combined Transport (CT) value chain,
- Long-distance Road Haulage as a key competitor of Combined Transport (CT), and / or
- Combined Transport as whole.

Exhibit 1 summarises the most relevant changes by the three defined categories. For further details see appendix 1, which provides an overview of the main regulatory changes including reference to amendments of the relevant Regulations and Directives.

Exhibit 1: Changes of the new EU Road Haulage Rules impacting the Combined Transport system in Europe

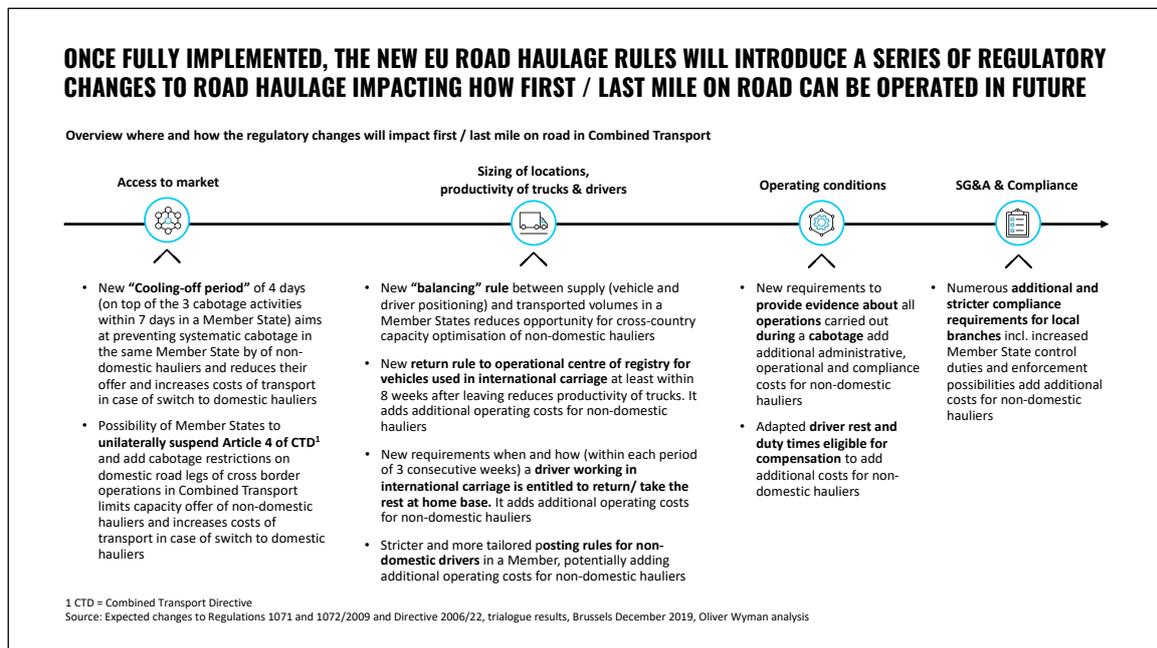
Most relevant changes	Directly impacting	
	Short-distance road partnering with CT	Long-distance Road competing with CT
• New provision of a “cooling-off period” added to present cabotage rule	x	
• New requirements to provide evidence about all operations carried out during a cabotage in a Member State	x	
• New “balancing” rule between supply (driver and vehicle positioning) and transported volumes in a Member State	x	
• Stricter and more tailored posting rules for non-domestic drivers in a Member State	x	
• Additional and stricter compliance requirements for agencies of Road Haulage companies in Member States	x	
• New return rule to operational centre of registry for vehicles used in international carriage	x	x
• New requirements when and how a driver working in international carriage is entitled to return/ take the rest at home base	x	x
• Adapted driver rest and duty times eligible for compensation	x	x
• Possibility of a Member State to unilaterally suspend Article 4 of Combined Transport Directive (CTD)	x	

2.2. Expected Impact of new Regulations and Directives for Combined Transport

To better understand probable impacts including associated risks for Combined Transport, we assessed where and how the short-listed regulatory changes to Road Haulage could impact the Combined Transport value chain.

Once fully implemented, the regulatory changes of the new EU Road Haulage Rules could impose both additional costs as well as capacity restrictions to first / last mile on Road Haulage of Combined Transport, as shown in exhibit 2. For a more detailed overview including a comparison of the expected changes versus the situation today including potential effects, see appendix 2.

Exhibit 2: Overview where and how the new regulatory changes will impact short-distance Road Haulage as part of the Combined Transport value chain



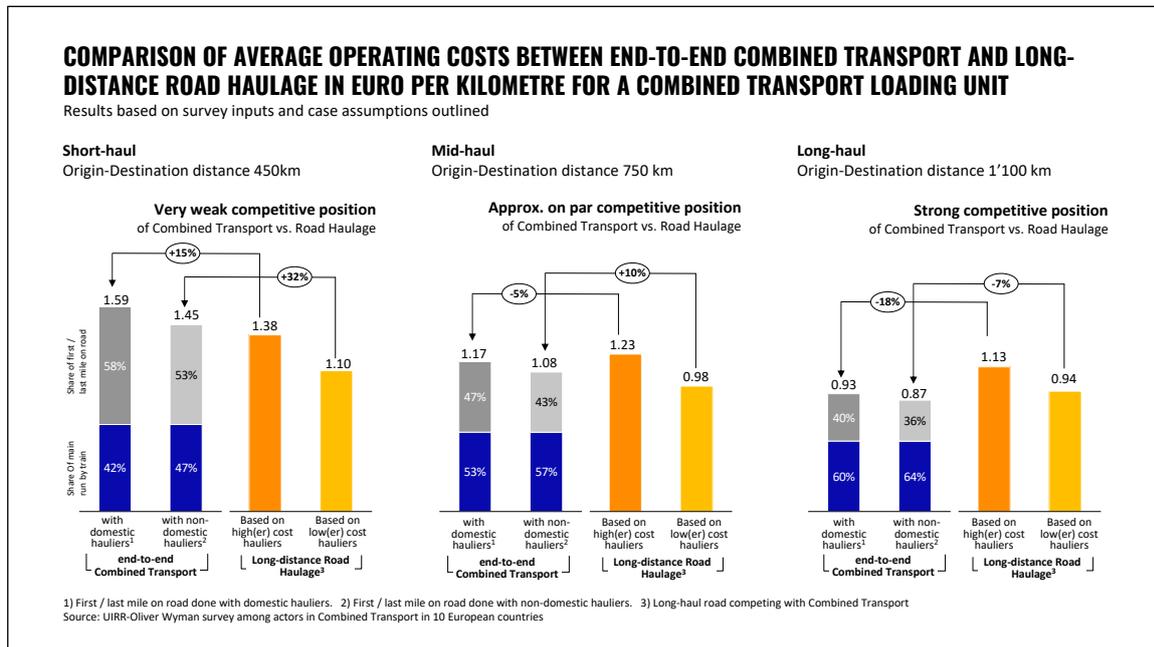
The majority of additional costs on first / last mile on Road Haulage of Combined Transport could come immediately to effect with the introduction of the new EU Road Haulage Rules, as from early 2022 onwards.

However, the additional capacity limitations attributable to the optional cabotage restrictions on domestic legs will be subject to the discrete decision of each European Member State, whether it intends to exercise the new regulatory possibility to suspend Article 4 of the Combined Transport Directive (CTD) or not. Based on our research, we understand that there are discussions in some Member States about the possibility to suspend Article 4 of the CTD, but neither concrete proposals nor implementation plans have been announced yet.

According to the surveyed company assessments Combined Transport has today a cost disadvantages versus long-distance Road Haulage especially on short- and partially on mid-haul distances. Exhibit 3 provides an exemplary unit cost comparison between end-to-end Combined Transport and long-distance Road Haulage based on data and market insights collected in the survey for three distance examples⁴.

⁴ Figures are based on surveyed cost and operational indicators in Combined Transport shared by 20 Combined Transport actors. Results are an indicative proxy and could differ by countries, trade lanes and actors

Exhibit 3: Comparison of end-to-end unit costs in Combined Transport versus long-distance Road Haulage⁵



The future competitive position of Combined Transport and long-distance Road Haulage will depend on how the cost gap between the two transport solutions will develop.

Our estimations are based on six cases and the survey results including risk view of 20 Combined Transport actors across Europe, who shared their market insights and estimations.

⁵ Key assumptions used of calculating the unit cost outlined in exhibit 3:

- Origin and Destination distance: 450 km (case 1), 750 km (case 2), 1'100 km (case 3)
- Unit cost based on surveyed values for first / last mile cost by domestic and non-domestic Road Hauliers / countries, main run by train / country, long-distance Road Haulage by high(er) and low(er) cost operators
- Distances for end-to-end Combined Transport: first mile on road: 138 km and last mile on road: 148 km (both average of surveyed values), main run by rail: 375 km (O&D case 1), 700 km (O&D case 2), 1'050 km (O&D case 3)
- End- to-end unit cost on Combined Transport: (First mile distance x unit cost of first mile + main run distance x unit cost of main run by train + last mile distance x unit cost of last mile on road) / total transport distance

3. RISKS OF THE NEW EU ROAD HAULAGE RULES FOR COMBINED TRANSPORT

To support an evidence-based assessment of potential risks of the new EU Road Haulage Rules on Combined Transport, Oliver Wyman with the support of UIRR conducted a survey involving 20 logistics and road transport service providers from 10 different countries active in Combined Transport across Europe. The survey, which was conducted in Summer 2020, was complemented by deep dive interviews to discuss the business perspectives of the identified risks.

Based on the collected information and additional research, four potential risk areas were identified:

1. The new EU Road Haulage Rules could lead to immediate cost increases for Road Haulage
 - a. Short-distance Road Haulage (partner of Combined Transport) operated by non-domestic road hauliers could expect a cost increase in average around +16%⁶
 - b. Whereas long-distance Road Haulage (competitor of Combined Transport) could expect potential cost increase around +5%.⁷
2. If these cost increases are passed on, end-to-end Combined Transport could experience immediate additional pressure:
 - a. End-to-end Combined Transport using non-domestic road hauliers could see a cost increase between 6% on long-distances (over 1'000 km), 7% on mid-distances (between 500 and 1'000 km), and 9% on shorter distances (between 300 and 500 km).
 - b. Our survey results suggest that long-distance road is expected to be able to compensate significant parts of its additional costs. Therefore, there could be a risk of an increased cost gap between the two competing solutions of freight transport. This could trigger a demand shift towards long-distance Road Haulage.
3. The potential decision of Member States to unilaterally suspend Article 4 of the Combined Transport Directive (CTD) would trigger a second wave of risks for Combined Transport as it could:
 - a. Lead to a capacity shortage on first / last mile on road due to the expected capacity shifts of non-domestic hauliers to long-distance Road Haulage and the inability of domestic hauliers to compensate. Based on the surveyed estimations, the capacity effect is estimated between -5 to -10% in average.
 - b. Increase costs of the first / last mile on road of Combined Transport by +15 to +22% (subject to country) for those volumes, where shippers would need to replace non-domestic hauliers by domestic truckers on domestic legs. The cost change is estimated based on the surveyed average difference between cost of non-domestic and domestic hauliers per country on first / last mile.
4. Several other risks could result in an additional negative impact, such as:
 - a. Amendments to present Cabotage Rules could influence the overall available capacity for domestic operations in general and for Combined Transport in particular,
 - b. Additional cost increases, that would be triggered by a potential redistribution of fixed costs for underutilised assets (i.e., terminals) in case of a significant reduction of Combined Transport volumes.

⁶ Surveyed effect for three key changes ranges between 10% and 25%. Average of 16% used for quantification of effects

⁷ Surveyed effect ranges between 5% and 10%. 5% used for quantification of effects, due to expected optimisation levers

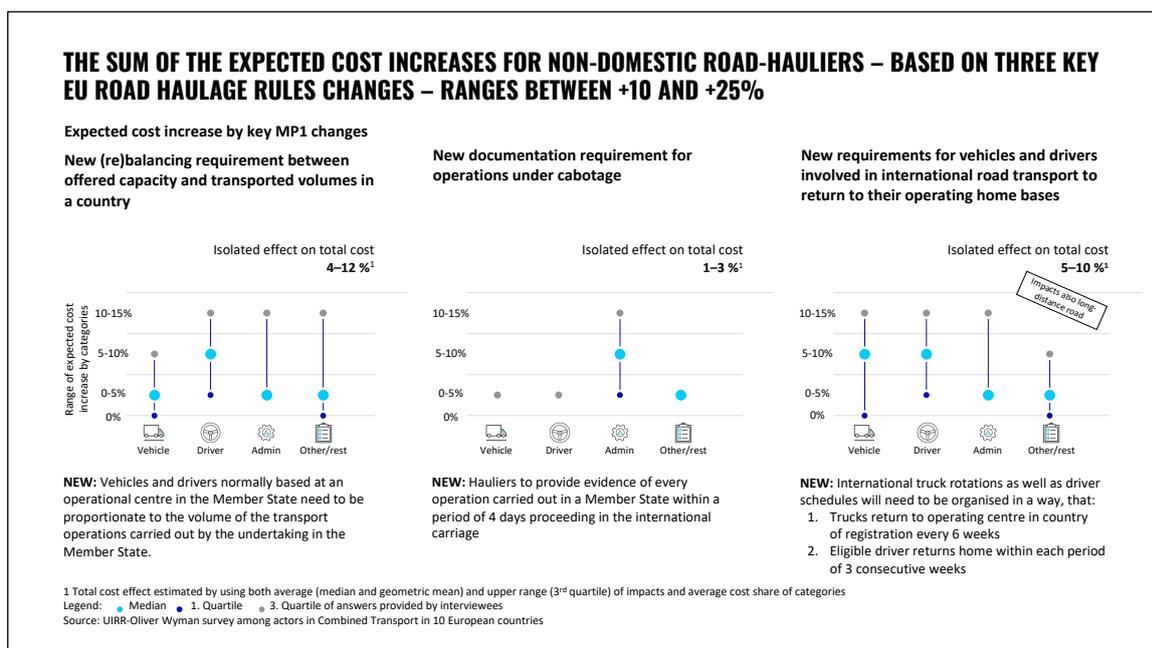
- c. Cost and competitive impacts could add additional economic pressure along the entire Combined Transport value chain, with smaller actors seen as very vulnerable.

3.1. Risks of Cost Increases for Road Haulage

Our analyses as well as the discussions with surveyed companies highlight risks of a significant cost increase due to the new regulation impacting non-domestic hauliers active in first / last mile road legs in Combined Transport as well as long-distance road hauliers. This effect would become effective as from early 2022 onwards.

The surveyed estimations suggest that the cost increase for non-domestic road hauliers (partner of Combined Transport) could range between +10 plus 25% and an average of 16%. Exhibit 4 provides an overview of the surveyed cost increase expectations by cost categories and three key changes.

Exhibit 4: Surveyed cost increases by the new EU Road Haulage Rules and operating cost categories



Long-distance road haulage (as a competitor of Combined Transport) will be affected mainly by the additional requirements to reorganise international truck rotations and driver schedules in a way, that trucks return to their operating centre in the country of registration every 6 weeks, and eligible drivers return home within each period of 3 consecutive weeks. The resulting cost increase is assumed to be around +5% to +10% of total operating cost.

Surveyed companies believe that the net effect will be lower as long-distance Road Haulage will enjoy business optimisation levers, therefore 5% are currently assumed for effect estimation.

“ We expect long-haul road haulage to see additional costs due to the new EU Road Haulage Rules; however, the effect will be easier to compensate in daily operation and efficiencies to come i.e., due to overall schedule optimisation or new truck technology. ”

Large operator in Combined Transport⁸

⁸ UIRR-Oliver Wyman survey and interviews among actors in Combined Transport in 10 European countries, August – September 2020

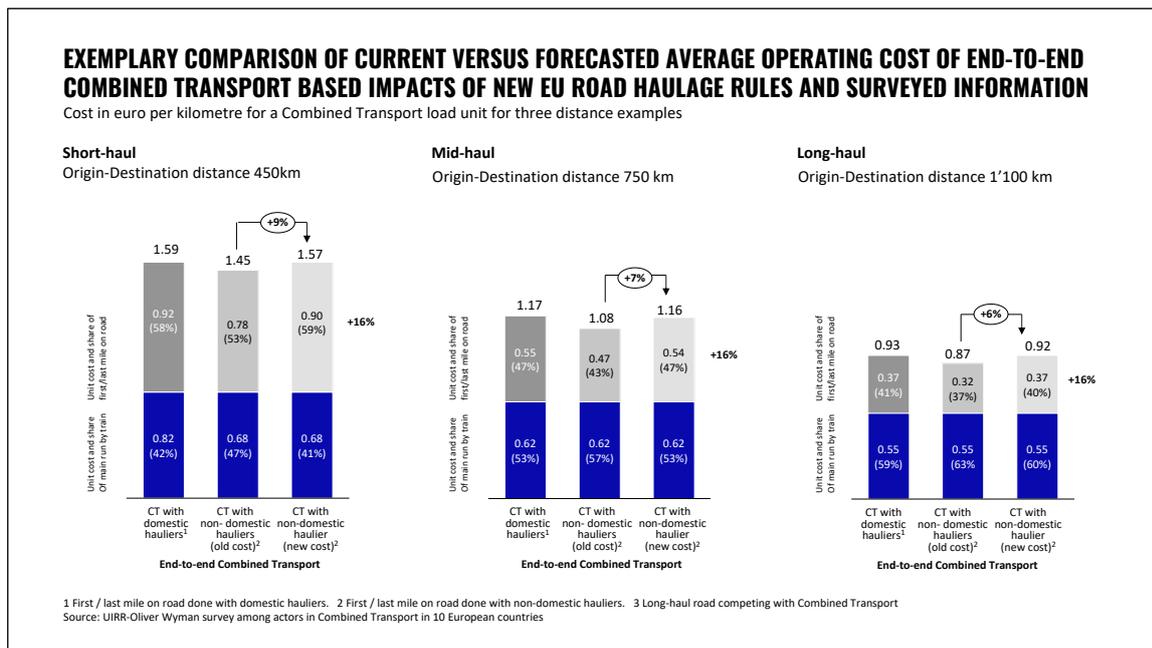
The estimated cost change has not yet been officially confirmed by European road associations i.e., the IRU, et al. and could therefore change once further Road Haulage focused studies are available.

3.2. Risks of Cost increases for Combined Transport and of an increased Cost Gap with long-distance Road Haulage

The immediate cost change effect triggered by the new EU Road Haulage Rules was approximated based on three representative distance examples (see also exhibit 5 and 6)⁹. Based on the surveyed information and assumptions used, we expect:

- End-to-end costs in Combined Transport involving non-domestic hauliers could increase by up to 9% versus long-distance Road Haulage, which will see a cost increase of just 5%,
- Unit cost of Combined Transports involving non-domestic hauliers would be on par with those involving domestic hauliers, and
- The cost penalty – a key proxy for competitiveness – of Combined Transport to long-distance Road Haulage would increase for the short- and mid-haul distance cluster (up to 1'000 km). On distances over 1'000 km, Combined Transport would likely keep its unit cost advantage.

Exhibit 5: Expected unit cost change for end-to-end Combined Transport versus long-distance Road Haulage

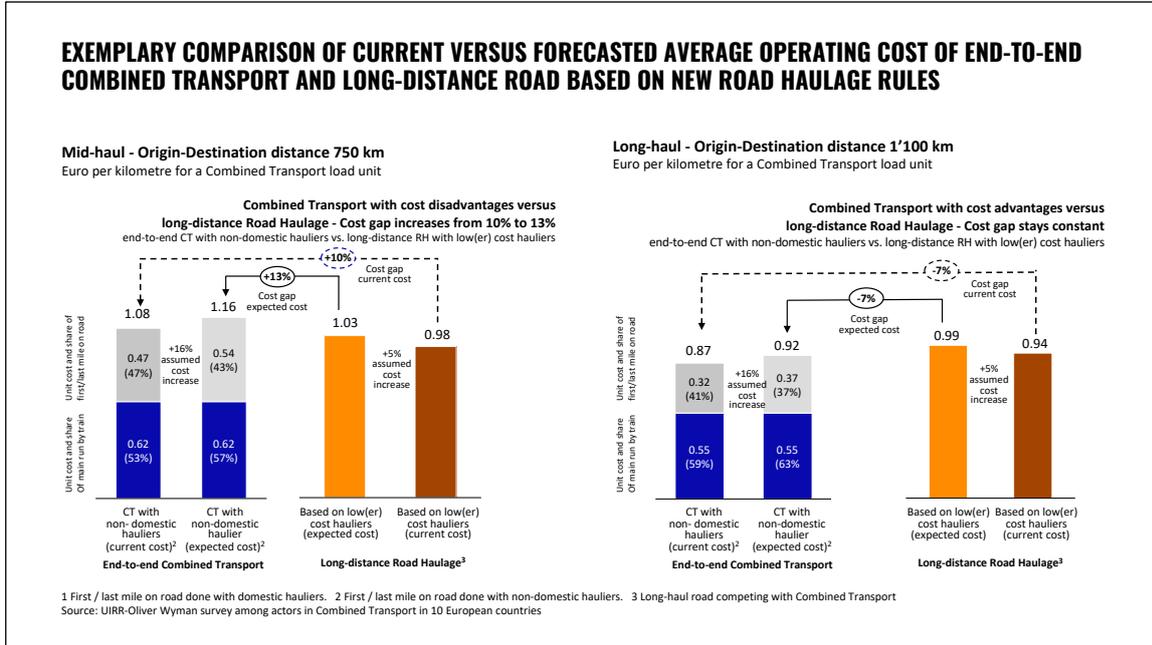


⁹ Key assumptions used of calculating the unit cost outlined in exhibit 5 and 6:

- Origin and Destination distance: 450 km (case 1), 750 km (case 2), 1'100 km (case 3)
- Unit cost based on surveyed values for first / last mile cost by domestic and non-domestic Road Hauliers / countries, main run by train / country, long-distance Road Haulage by high(er) and low(er) cost operators
- Additional cost due to new rules 1 are passed on to Combined Transport. Assumed cost increase: First / last mile on road with non-domestic hauliers +16% (middle of expected bandwidth of 10 to 26%), long-distance Road Haulage +5% (lower end of expected bandwidth of 5 to 10% assuming cost increases can be reduced by optimisations)
- Distances for end-to-end Combined Transport: first mile on road: 138 km and last mile on road: 148 km (both average of surveyed values), main run by rail: 375 km (O&D case 1), 700 km (O&D case 2), 1'050 km (O&D case 3)
- End- to-end unit cost on Combined Transport: First mile distance x unit cost of first mile + main run distance x unit cost of main run by train + last mile distance x unit cost of last mile on road) / total transport distance
- Long-distance Road Haulage unit cost used as surveyed x assumed cost increase

Exhibit 6 shows the changed cost difference between end-to-end Combined Transport and long-distance Road Haulage for the assessed examples¹⁰. For further analyses, see also appendix 4 – 5.

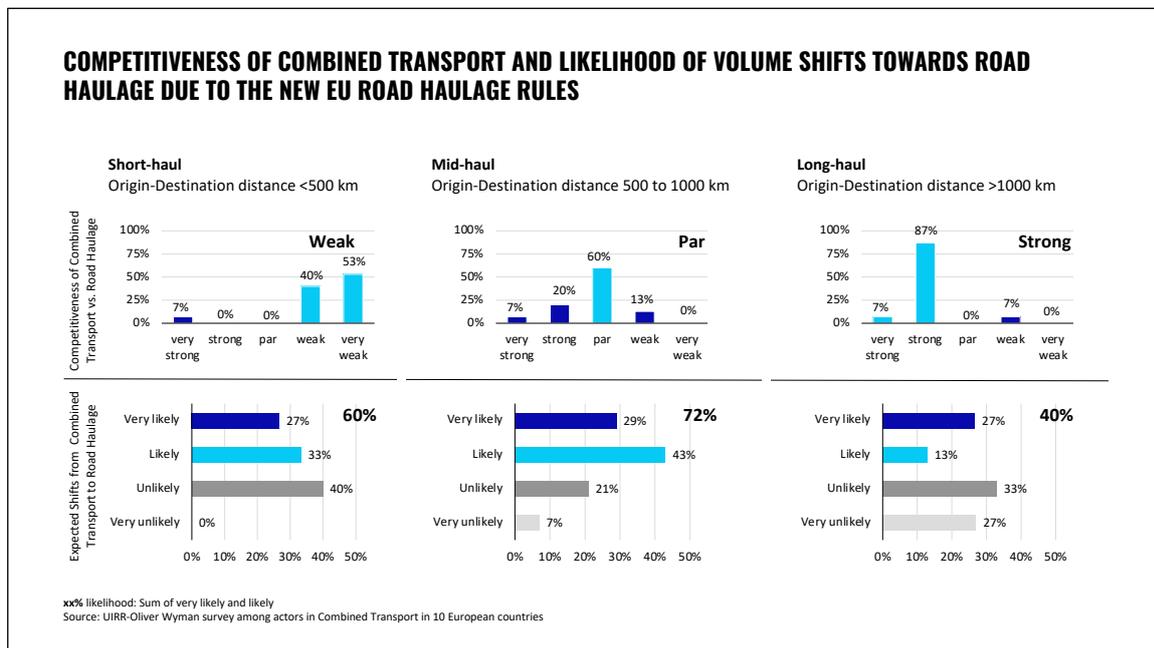
Exhibit 6: Expected cost difference change end-to-end Combined Transport and long-distance Road Haulage



The surveyed market sentiment regarding today’s competitiveness of Combined Transport versus Road Haulage confirms the quantification above. Combined Transport’s competitiveness is judged strong only on end-to-end distances over 1’000 km. On mid-haul distances (500 to 1’000 km) competitiveness is seen as being on par, while on short-haul distances (under 500 km) competitiveness is seen as weak. Especially on short- and mid-haul distances, the likelihood of volume shifts from Combined Transport to long-distance Road Haulage is expected to be high.

¹⁰ Example is based on average values and could vary by countries / trade lanes

Exhibit 7: Surveyed views regarding today’s competitiveness of Combined Transport versus Road Haulage and likelihood for future volume shifts due to the new EU Road Haulage Rules effects



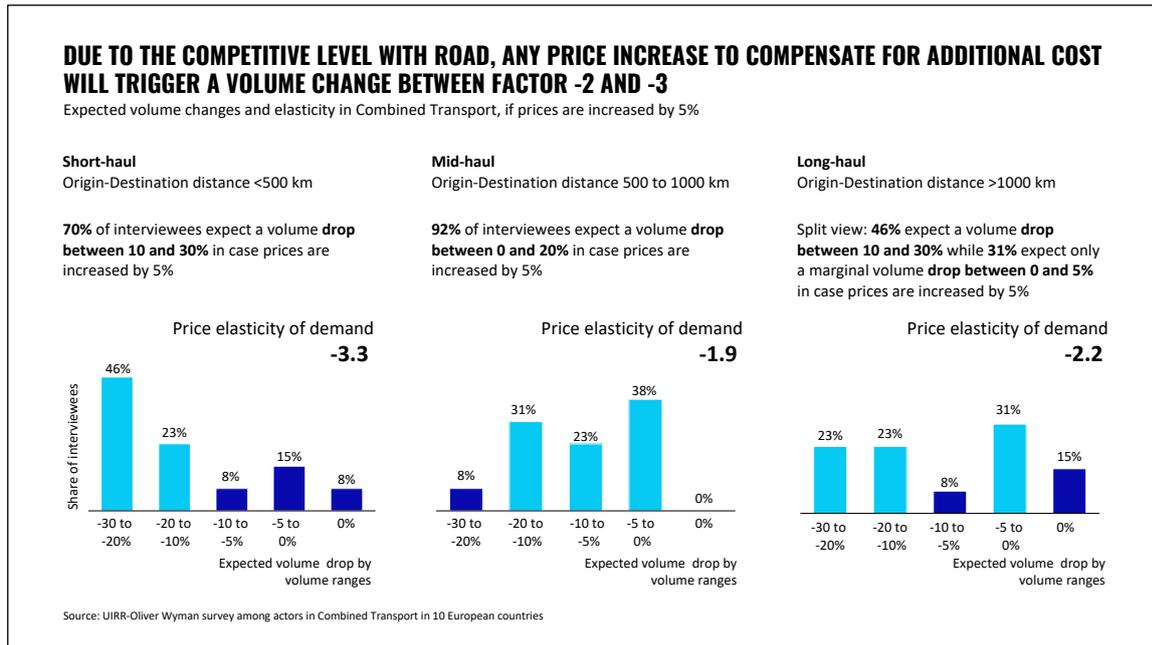
In all discussion with surveyed companies, price has been highlighted as one of the key decision factors for comparable shipments on end-to-end Combined Transport versus its corresponding long-distance Road Haulage. Actors expect that any efforts of Combined Transport to increase prices to compensate for higher costs will lead to a demand change and a shift of volumes towards Road Haulage.

“ Unless governments are willing to increase subsidies for rail (Combined Transport), shifts towards road will continue as additional cost are not accepted by the industry. These shifts will be permanently and irreversible. ”

Large operator in Combined Transport¹¹

Collected parameters in our survey suggest that price elasticity of demand differs by origin-destination distance and ranges between factor -1.9 and -3.3.

¹¹ UIRR-Oliver Wyman survey and interviews among actors in Combined Transport in 10 European countries, August – September 2020

Exhibit 8: Surveyed expected volume changes in Combined Transport, if prices are increased by 5%

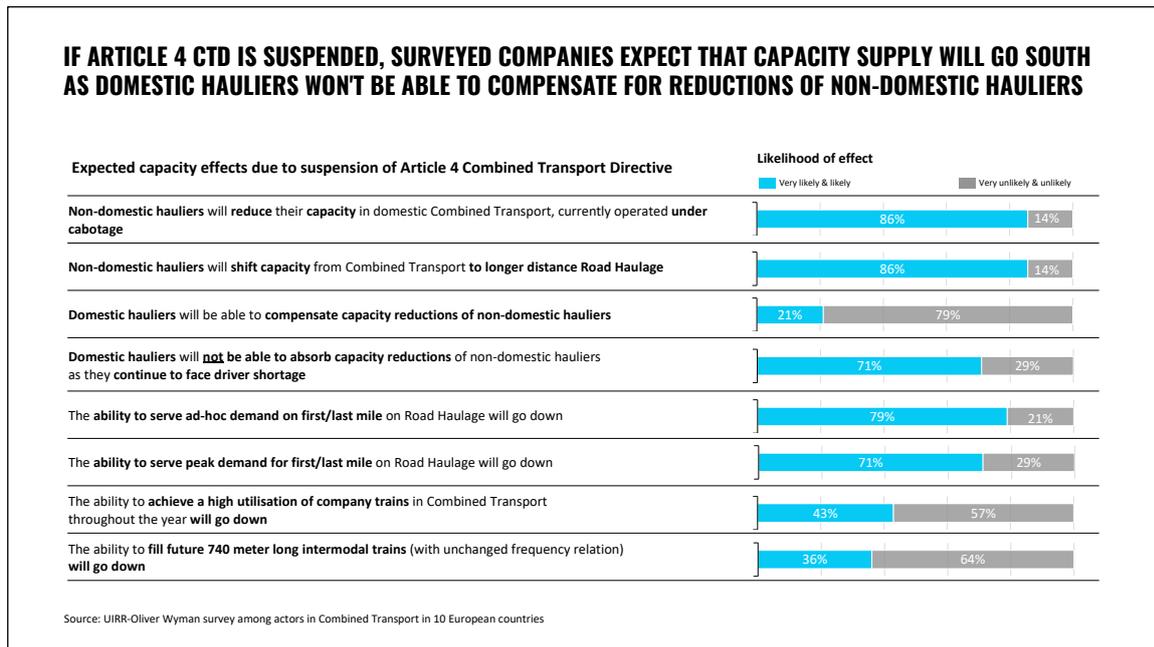
3.3. Additional Capacity and Cost Risks from a possible Suspension of Article 4 of Combined Transport Directive (CTD)

The new regulation creates the possibility for Member States to unilaterally suspend Article 4 of the Combined Transport Directive (legal equivalence of long-distance road haulage and the end-to-end Combined Transport operation that corresponds to it). Thereby Member States have been granted the regulatory option to impose cabotage restrictions on domestic road legs of cross-border Combined Transport operations. Additionally, Member States are permitted to define different periods for Combined Transport road-legs performed under cabotage than the general cabotage rules.

When discussing the potential effects of a suspension of Article 4 of the CTD, there is a joint view among surveyed companies, that the impact could be material, as:

- Non-domestic hauliers are expected to reduce their capacity operated in first / last mile on domestic Combined Transport legs and shift it to long-distance Road Haulage,
- This reduction cannot be compensated by domestic hauliers as they are expected to continue suffering from driver shortage once the demand returns to pre-COVID19 levels, and
- The potential capacity shortage on first / last mile could negatively affect Combined Transport's ability to compete on end-to-end transport assignments with long-distance road, and also have knock-on effects for instance on the main non-road section of the transport operation.

Exhibit 9: Surveyed risks from a suspension of Article 4 Combined Transport Directive



However, capacity risks would vary by trade lanes and are subject to the first / last mile road transport split in the starting / ending country of the main run by train or waterborne means¹². Our surveyed parameters show that the average share of non-domestic hauliers on domestic legs varies among the different countries.

Exhibit 10: Surveyed share of non-domestic hauliers on first / last mile of domestic legs by countries in focus

Country surveyed in detail	First mile on road			Last mile on road		
	Share of domestic legs operated by non-domestic hauliers	Share of domestic legs	Share of non-domestic hauliers on domestic legs	Share domestic legs operated by non-domestic hauliers	Share of domestic legs	Share of non-domestic hauliers on domestic legs
Germany	25%	55%	46%	23%	55%	43%
France	14%	32%	44%	18%	34%	53%
Italy	18%	63%	28%	22%	65%	34%
Sweden	21%	54%	39%	28%	52%	54%
Denmark	22%	54%	40%	26%	52%	50%

Source: Results based UIRR-Oliver Wyman survey among actors in Combined Transport in 10 European countries, Oliver Wyman analysis

This interpretation could change if country specific operating parameters such as share of domestic legs in first / last mile and / or share of non-domestic hauliers on domestic legs change.

As a cross-reference, we asked the surveyed companies to share their views on the capacity impact of a suspension of Article 4 CTD. The average (median) capacity impact for international flows involving a road leg, that does not involve border crossing ranged between -5 to -10%. For further details see appendix 3.

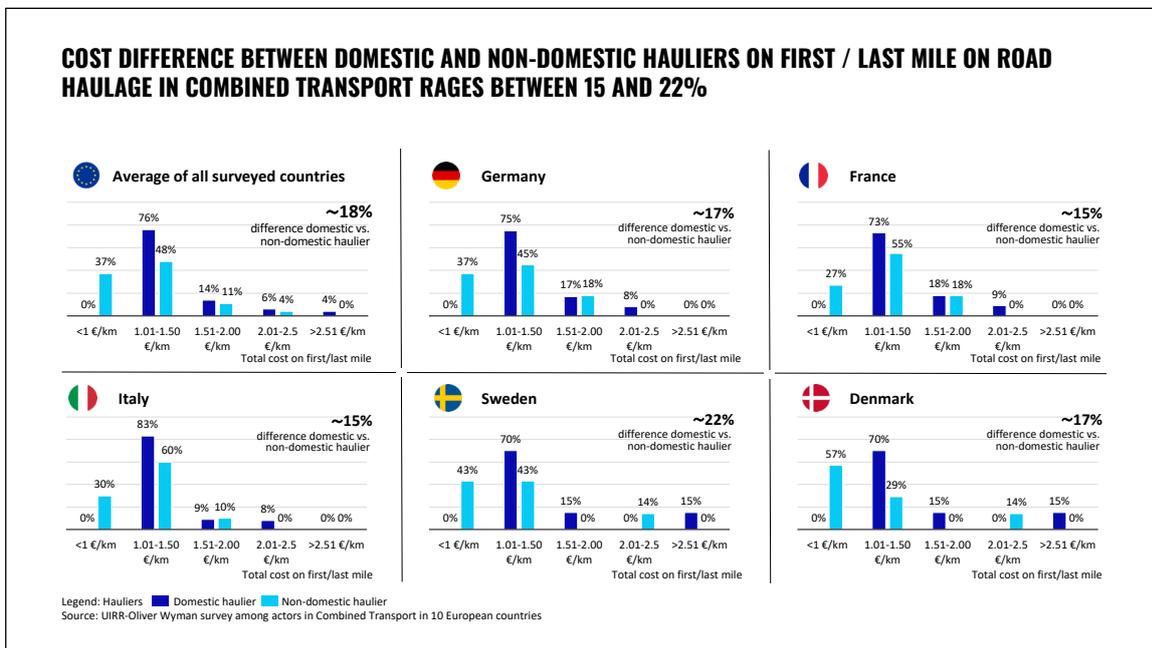
¹² The share of first / last mile service on domestic road legs operated by non-domestic hauliers is based on the UIRR-Oliver Wyman survey and calculated by multiplying the surveyed share of domestic legs in first /last mile with the share of non-domestic hauliers in first / last mile on domestic legs

A suspension of Article 4 CTD could also trigger additional costs on first / last mile on road of domestic legs in Combined Transport, if shippers need to replace non-domestic hauliers by domestic truckers on domestic legs. Trigger point would be a combination of:

- Capacity of non-domestic hauliers to be inadequate to serve the demand (i.e., due to a more restrictive cabotage regime and/or capacity shifts to long-distance road haulage, etc.), and
- Domestic hauliers are not able to provide additional capacity to compensate reductions of non-domestic hauliers.

Based on the survey results the respective cost increases would range between 15 and 22% subject to country - measured as average difference between cost of a non-domestic and domestic haulier per country on first / last mile.

Exhibit 11: Surveyed cost difference between domestic and non-domestic hauliers on first / last mile on road in Combined Transport by countries of survey focus



3.4. Other Risks for Combined Transport

Capacity Risks from Amendments to present Cabotage Rules

The present cabotage rule that permits 3 cabotage operations within a 7-day period before a truck must engage in a cross-border assignment remains unchanged. With the new EU Road Haulage Rules, a new provision of a “cooling-off period of 4 days” has been added to the Regulation to prevent systematic cabotage in the same Member State.

The impact assessment of the proposal amending Regulation (EC) No 1071/2009 and Regulation (EC) No 1072/2009 explicitly highlights the substantial impact of this measure on the overall level of cabotage activity. The overall drop in cabotage activity is estimated to be up to 30%, due to the loss of flexibility related to the reduce time available for cabotage activity^{13 14}.

While this change would not affect Combined Transport as long as Member States do not make use of the optional possibility to suspend Article 4 CTD, the new regulation could influence the overall available capacity for domestic operations.

Collateral Cost Risks in Case of a Volume Reduction

Additionally, the high interdependencies along the entire Combined Transport chain are seen as a key collateral cost risk in case of a volume reduction. In such case, fixed costs would be redistributed on a lower volume base and lead automatically to a cost increase for Combined Transport.

“ Given the high interdependencies along the value chain, negative domino effects should not be underestimated. In case of major volume losses, we will face further challenges as fixed costs (i.e., of terminals) will be redistributed, triggering a deterioration of the competitive position of Combined Transport. ”

Large operator in Combined Transport¹⁵

While the effects would vary and depend on the volume change as well as the possibility to adapt the fixed cost portion along the Combined Transport chain, the risk could be material and should therefore not be underestimated.

¹³ Modelled reduction until 2035

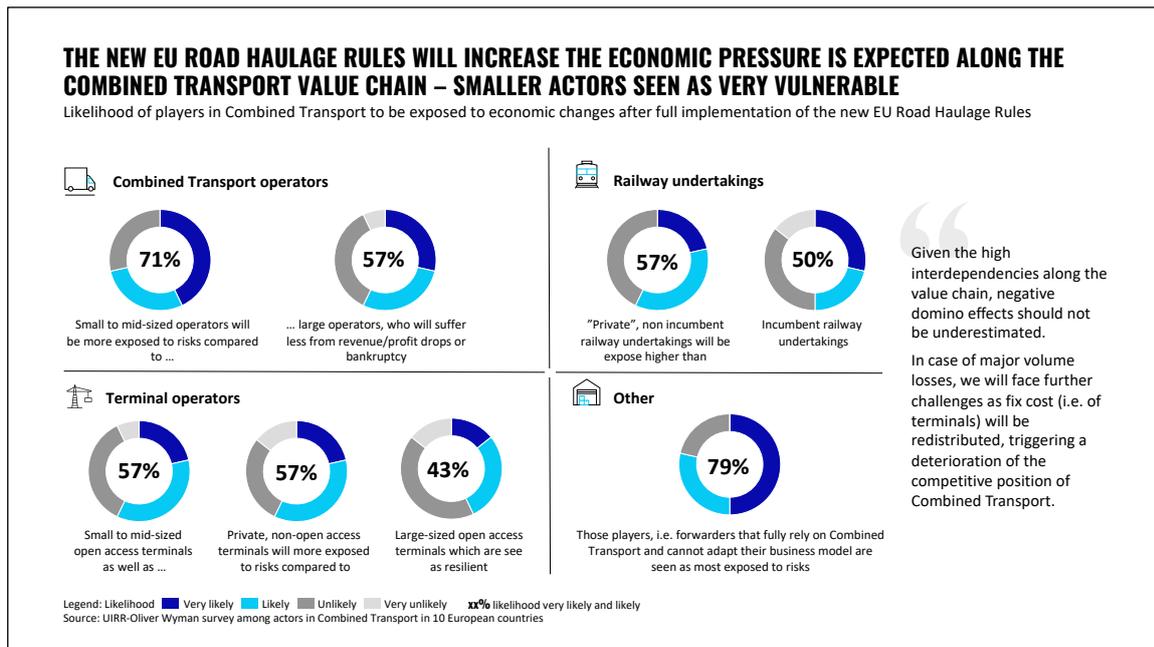
¹⁴ A haulier aiming to engage in the maximum cabotage possible in as 30-day period would be able to complete 3.33 cabotage periods under the 7-day rule, taking into account that he would require 6.67 days to cover the international transports. If the period is reduced to 4 days, the haulier will have to spend more time on the internal journeys (10 days), leaving less time for the cabotage activity itself. Source: Impact Assessment, Accompanying the documents Proposal for Regulation of the European Parliament and of the Council amending Regulation (EC) No 1071/2009 and Regulation (EC) No 1072/2009, footnote 96

¹⁵ UIRR-Oliver Wyman survey and interviews among actors in Combined Transport in 10 European countries, August – September 2020

Risks from increased economic Pressure along the entire Combined Transport Value Chain

Considering the overall freight transport sector in Europe, surveyed companies expect an increased economic pressure along the entire Combined Transport value chain with smaller actors seen as very vulnerable, if the new EU Road Haulage Rules are fully implemented.

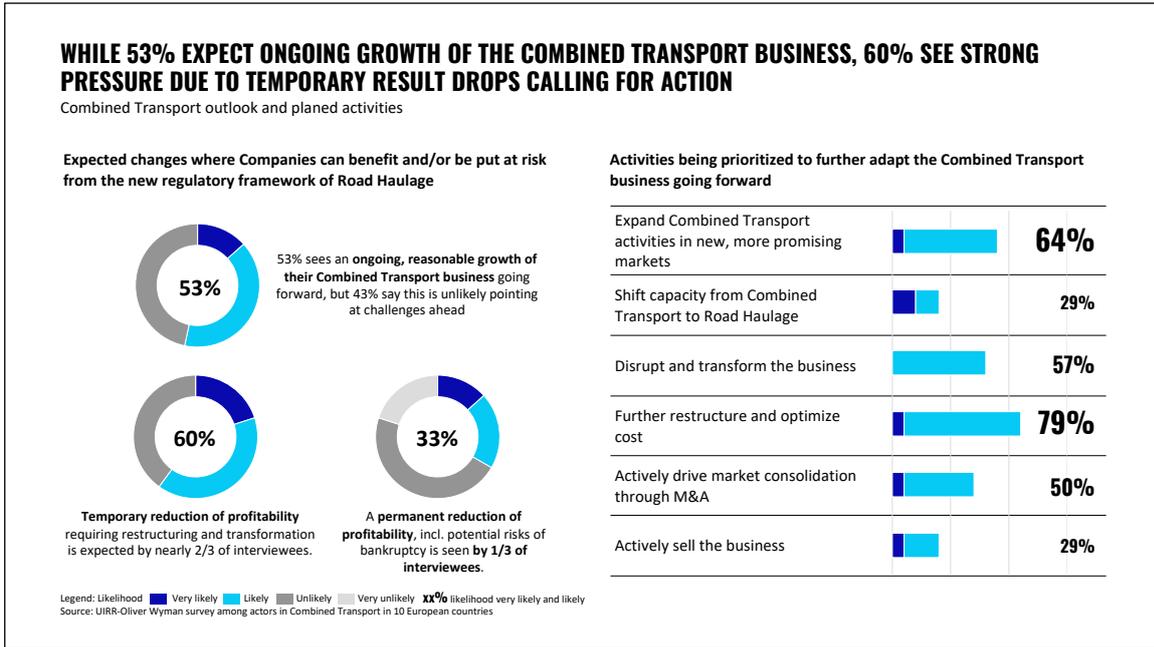
Exhibit 12: Likelihood of actors in Combined Transport to be exposed to revenue loss, profit drop and/or bankruptcy after the new EU Road Haulage Rules are fully implemented



Regarding the development of their own Combined Transport business, half of the surveyed companies expect ongoing growth whereas 43% expressed their concerns, pointing to challenges ahead. Nearly 2/3 of the surveyed companies expect a temporary reduction of profitability requiring restructuring and transformation efforts. 1/3 even expects a permanent negative impact on profitability.

At this stage, companies see both top-line activities e.g., push in new, more promising markets as well as further restructuring as well as cost reduction as the most promising activities to further adapt the Combined Transport business going forward.

Exhibit 13: Survey results regarding Combined Transport business outlook



4. QUANTIFIED EFFECTS OF THE NEW EU ROAD HAULAGE RULES ON COMBINED TRANSPORT

The quantification of the effects of the new EU Road Haulage Rules on Combined Transport was based on six cases evaluated with a traffic flow model¹⁶ and an operations and cost model¹⁷ on a country-to-country and carrier level. Key assumptions were based on the survey results.

The results of the six evaluated cases can be summarised as follows:

- Approximately 8% of the underlying Combined Transport annual transport volume – equivalent to approximately up to 14.4 billion tonnes kilometres or 0.6%-points of 7.2% Combined Transport’s market share in 2019 – could be at risk of being disrupted by the new regulatory frame of the new EU Road Haulage Rules¹⁸.
- The impact would come into effect at different points in time:
 - 45% of the penalty (3.6%-points of the 8%) would result from up to 9% higher costs for non-domestic road hauliers involved in end-to-end Combined Transport on domestic legs. This effect could immediately come into effect once the new EU Road Haulage Rules are implemented as from early 2022 onwards
 - 55% of the penalty (4.4%-points of the 8%) would be subject to the discretionary decision of all European Member States to use the regulatory option to unilaterally suspend Article 4 of the Combined Transport Directive. The effect would be triggered by both capacity as well as cost effects – it may be lower if only a few Member States would decide to exercise this right.
- Based on three scenarios modelled – “Baseline 2032”, “Full impact of the new EU Road Haulage Rules” and “Combined Transport in a Green Deal set-up” – the new EU Road Haulage Rules could lead in a worst-case scenario and compared to an ambitious development path to support the European Green Deal objectives, to a lower volume growth of Combined Transport of up to cumulative 1.2 trillion tonnes kilometres over 10 years (approximately 6.6x the volume in 2019 or up to 8.7%-points less market share gain).
- Based on the assumption that these volumes would be transported on long-distance Road Haulage, it would trigger up to additional 49.4 million tonnes of CO₂ emissions and €31.4 billion of external costs¹⁹, both over a period of 10 years.

¹⁶ Traffic flow model based on UIRR terminal-to-terminal data on country level for cross-border and domestic Combined Transport in 2019. Data includes information for number of consignments incl. average weight and distance as well as tonnes-kilometres transported

¹⁷ Operations and cost model based on survey results data covering following parameters:

- Average distance of first / last mile on Road Haulage by country
- Share of domestic and non-domestic hauliers on first / last mile by countries
- Expected price elasticity of demand by distance cluster
- Total cost for domestic and non-domestic hauliers on first / last mile
- Total cost for domestic and non-domestic hauliers on first / last mile in Euro per vehicle kilometre transporting a Combined Transport load equivalent
- Terminal to terminal cost of main rail-run in Combined Transport in Euro per kilometre for a Combined Transport load unit by distance cluster
- Total cost for longer distance on road haulage for domestic and non-domestic haulier in Euro per vehicle kilometre for a truck carrying a Combined Transport load unit

¹⁸ In 2019, market share of Combined Transport in Europe was approximately 7.2% of total freight ground transport. Source: UIC-UIRR 2020 Market Report on Combined Transport

¹⁹ External costs were based on Handbook on the External Costs of Transport, European Commission, Version 2019 (1.1.) comparing the external costs difference between Road Haulage and Rail for categories climate change, air pollution, congestions and accidents. The assumption used for climate change is €100/tCO₂ equivalent

4.1. Cases, Evaluation Model and modelled Assumptions

Based on the analysis summarised in Chapters 2 and 3, we defined and quantified six cases along two categories:

- Higher costs for non-domestic hauliers involved on domestic legs in end-to-end Combined Transport, and
- Additional capacity constrains due to stricter cabotage rules and a suspension of Article 4 Combined Transport Directive.

Exhibit 14: Overview of defined and quantified cases

OVERVIEW OF EVALUATED CASES TO QUANTIFY THE IMPACT OF THE NEW EU ROAD HAULAGE RULES ON COMBINED TRANSPORT

<div style="display: flex; align-items: flex-start;"> <div style="margin-bottom: 10px;"></div> <div> <p>Higher costs for non-domestic hauliers involved in end-to-end Combined Transport</p> <ol style="list-style-type: none"> 1 New (re)balancing requirements between offered capacity (vehicles and drivers) and transported volumes in a country 2 New requirements for vehicles and drivers involved in international road transport to return regularly to their operating home bases 3 New administrative requirements for operations under cabotage 4 New work and placement rules for drivers of non-domestic hauliers </div> </div>	<div style="display: flex; align-items: flex-start;"> <div style="margin-bottom: 10px;"></div> <div> <p>Additional capacity constrains due to stricter cabotage rules and suspension of Article 4 Combined Transport Directive</p> <ol style="list-style-type: none"> 5 More restrictive cabotage regime for non-domestic hauliers. Limitation of non-domestic road hauliers capacity with two effects: <ol style="list-style-type: none"> a Higher costs in case shipments needs to switch from non-domestic to domestic haulier supply for first / last mile on road due to reduced capacity availability of non-domestic hauliers b Domestic hauliers cannot serve capacity needs due driver shortage or other capacity limitations. Demand switches from Combined Transport to long-distance Road Haulage 6 Possibility to unilaterally suspend Article 4 CTD for domestic legs on international Combined Transport flows. Similar effects as in 5: effects triggering: <ol style="list-style-type: none"> a Additional costs¹ b Capacity effects² </div> </div>
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1 due to similar effect as in downside case 5a. 2 due to similar effect as in downside case 5b
Source: Oliver Wyman analysis

To support the quantification, we used a traffic and cost model based on UIRR data on origin and destination country level, financial and operational inputs collected in the UIRR-Oliver Wyman market survey as well as other market information and research results.

Based on the conclusions from the risk assessment (chapter 2) and the market survey, we applied following assumptions to model cost and capacity effects on volumes in Combined Transport:

- A cost increase of end-to-end Combined Transport would need to be compensated by a price adaptation, which would trigger a volume change based on the price elasticity of demand estimated in the survey. The needed price adaptation is multiplied with the price elasticity of demand to receive the corresponding volume impact, which would result in a 1:1 volume change between Combined Transport and long-distance Road Haulage, and
- A capacity reduction in first / last mile on road legs of Combined Transport would impact directly the transported volumes, resulting in a 1:1 volume change between Combined Transport and long-distance Road Haulage.

Exhibit 15 provides an overview of the modelling framework including used information and sources.

Exhibit 15: Modelling framework for evaluating the new EU Road Haulage Rules impact on Combined Transport

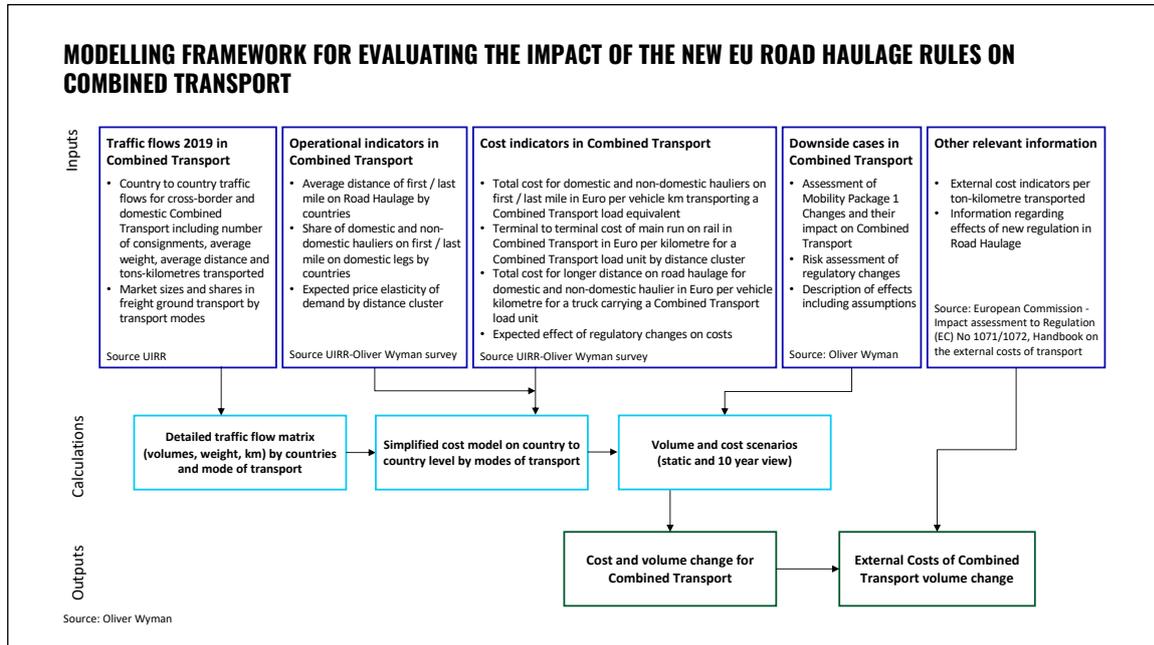


Exhibit 16 summarises the modelled assumptions and resulting costs and volume effects by cases.

Exhibit 16: Overview of assumptions and resulting costs and volume effects by cases

OVERVIEW OF ASSUMPTIONS AND RESULTING COSTS AND VOLUME EFFECTS BY CASES

Downside case	Estimation approach	Cost effect	Price elasticity of demand ¹	Volume effect ²
1 New (re)balancing requirements between capacity and transported volumes in a country	<ul style="list-style-type: none"> Cost increase estimated at 4-12%³ of total cost based on survey results 5.3% increase applied to non-domestic hauliers costs on first/last mile of domestic legs 	+0.4% higher total costs in CT ³	Based on survey results by distance clusters: <ul style="list-style-type: none"> Distance < 500 km: -3.3 Distances 500-1'000 km: -2.1 Distance > 1'000 km: -1.9 	-0.9%
2 Higher costs for non-domestic hauliers: New requirements for vehicles and drivers involved in international road transport to return regularly to their operating home bases	<ul style="list-style-type: none"> Cost increase estimated at 5-10%³ of total cost based on survey results 5.6% increase applied to non-domestic haulier costs on first/last mile of domestic and cross-border legs 	+0.8% higher total costs in CT ²		-1.6%
3 New administrative requirements for operations under cabotage	<ul style="list-style-type: none"> Cost increase estimated at 1-3.5%³ of total cost based on survey results 3.1% increase applied to non-domestic haulier costs on first/last mile of domestic legs 	+0.2% higher total costs in CT ²		-0.5%
4 New work and placement rules for drivers for non-domestic hauliers	<ul style="list-style-type: none"> Cost increase range 1-2%³ on total cost based on survey results 1.95% increase applied to non-domestic haulier cost on first/last mile of domestic and cross-border legs 	+0.3% higher total costs in CT ²		-0.6%
5a Stricter cabotage rules & suspension of Article 4 CTD: More restrictive cabotage regime for non-domestic hauliers	<ul style="list-style-type: none"> Cost difference between non-domestic and domestic hauliers on first/last mile of Combined Transport on domestic legs of cross border flows and domestic flows per O&D and respective country Share of affected cabotage based on impact assessment of European Union (assumption 50% of 30% highlighted by the impact assessment) 	+0.9% higher cost for first/last mile equivalent +0.2% higher total costs	Based on survey results by distance clusters: <ul style="list-style-type: none"> Distance < 500 km: -3.3 Distances 500-1'000 km: -2.1 Distance > 1'000 km: -1.9 	-0.4%
5b Unilateral possibility to suspend Article 4 CTD	<ul style="list-style-type: none"> Cost difference between non-domestic and domestic hauliers on first/last mile of Combined Transport on domestic legs of cross border flows per O&D and respective country Estimation of affected cabotage share based survey results on O&D country level (effect range between -5 and -10%) 	+0.3% higher costs for first/last mile = +0.07% higher total costs in CT	Average price elasticity <ul style="list-style-type: none"> Case 5a: -2.19 Case 6a: -2.13 	-0.1%
6 Capacity effects, in case domestic hauliers cannot replace non-domestic haulier capacity	<ul style="list-style-type: none"> Assumption, that capacity reduction of non-domestic hauliers in downside cases 5a and 6a cannot be absorbed by domestic hauliers and are shifted to long-distance Road Haulage 			-2.8 for case 5b -1.2% for case 6b

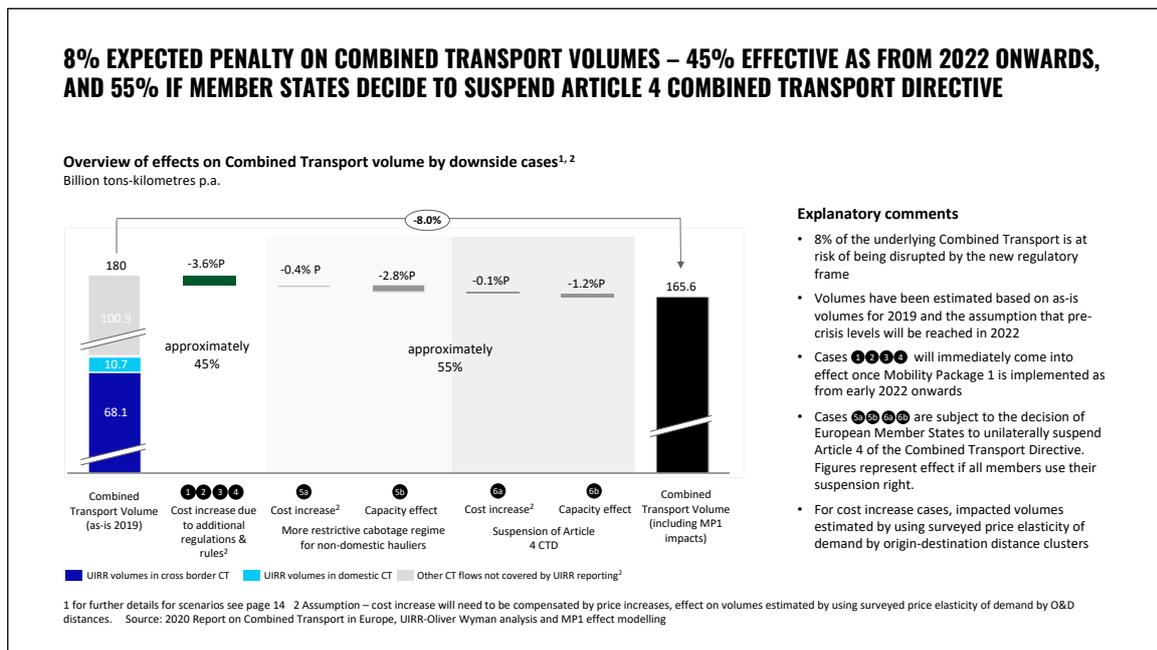
1) Assumption: cost effects to be compensated by price increases. Volume effect estimated based on assessed price elasticity of demand x expected price increase to compensate additional costs. 2) Volume effects estimated in tonnes-kilometres in Combined Transport 3) Total costs effect estimated by using both average (median and geometric mean) and upper range (3rd quartile) of impacts and average cost share of categories. Source: UIRR-Oliver Wyman analysis

4.2. Quantified Effects on Combined Transport – Static and 10 Years View

Based on the above outlined evaluation methodology, we estimate that approximately 8% of the underlying Combined Transport annual transport volume – equivalent to approximately up to 14.4 billion tonnes kilometres or 0.6%-points of 7.2% Combined Transport’s market share in 2019 – could be at risk of being disrupted by the new regulatory frame of the new EU Road Haulage Rules. However, the impact would come into effect at different points in time, as:

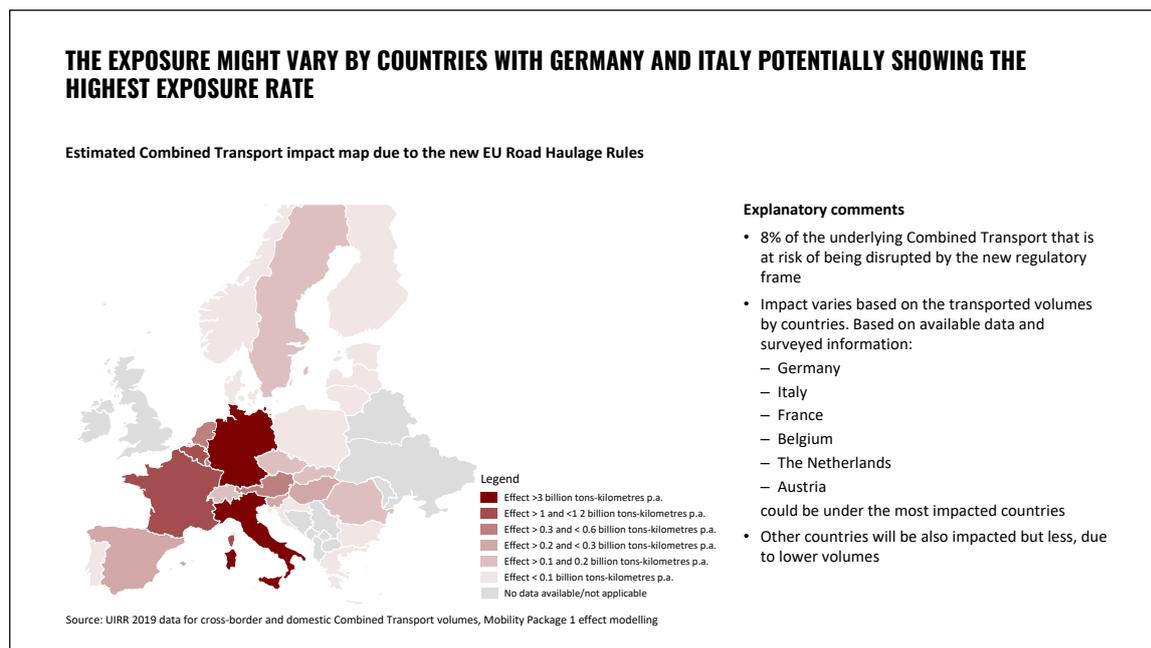
- 45% of the penalty (3.6%-points of the 8%) would result from up to 9% higher costs for non-domestic road hauliers involved in end-to-end Combined Transport on domestic legs. This effect could immediately come into effect once the new EU Road Haulage Rules are implemented as from early 2022 onwards
- The other 55% of the penalty (4.4%-points of the 8%) would be subject to the discretionary decision of all European Member States to use the regulatory option to unilaterally suspend Article 4 of the Combined Transport Directive. The effect would be triggered by both capacity and cost effects – it may be lower if only a few Member States would decide to exercise this right.

Exhibit 17: Overview of assumptions and resulting costs and volume effects by cases



Based on the underlying data and surveyed information, the countries with the expected highest absolute impact would be Germany and Italy, followed by France and Belgium. However, also other countries might be impacted as shown on exhibit 18.

Exhibit 18: Impact map by countries



To better estimate the full, dynamic effect over a period of 10 years, we modelled three scenarios:

- “Baseline 2032”, describes a potential development without major changes in Combined Transport,
- “Full impact of the new EU Road Haulage Rules”, describes the findings of this study, and
- “Combined Transport in a Green Deal set-up”, outlines how Combined Transport would develop, to reflect the objectives of the European Green Deal²⁰.

Exhibits 19 and 20 summarise main assumptions and results of the modelled scenarios.

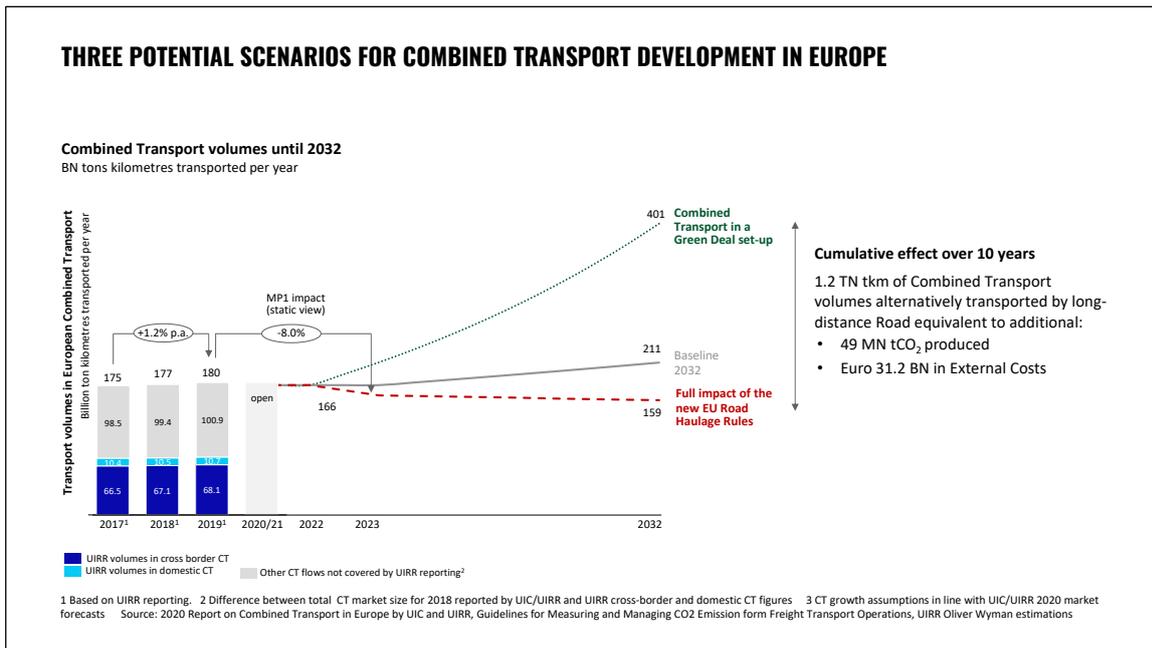
²⁰ The European Green Deal provides an action plan to boost the efficient use of resources by moving to a clean, circular economy as well as to restore biodiversity and cut pollution. The plan outlines investments needed and financing tools available. It explains how to ensure a just and inclusive transition. The EU aims to be climate neutral in 2050; the proposed European Climate Law aims at turning this political commitment into a legal obligation. Reaching this target will require action by all sectors of our economy, including investing in environmentally friendly technologies, supporting industry to innovate, rolling out cleaner, cheaper and healthier forms of private and public transport, decarbonising the energy sector, ensuring buildings are more energy efficient, working with international partners to improve global environmental standards. The EU will also provide financial support and technical assistance to help those that are most affected by the move towards the green economy.
Source: European Commission homepage Strategy/Priorities 2019-2024/A European Green Deal

Exhibits 19 and 20: Overview of scenario assumptions and outcomes

OVERVIEW OF SCENARIO ASSUMPTIONS AND RESULTS

Scenarios for Combined Transport	Baseline 2032	Full impact of the new EU Road Haulage Rules	Combined Transport in a Green Deal set-up	Difference Green Deal/MP 1
Key scenario assumptions and modelled parameters	<ul style="list-style-type: none"> 2022, market reaches pre-Covid-19 levels MP1 effect neutralised with countermeasures As of 2022, 1.5% p.a. market growth CT grows slightly above market (2% p.a.) 	<ul style="list-style-type: none"> Like baseline, but with following changes 2022, start of MP1, effects distributed over 2 years Suspension of Article 4 CTD in nearly all markets As of 2024, CT shrinks compared to market (-0.5% p.a.) 	<ul style="list-style-type: none"> Like baseline, but with following additions: Additional investment in infrastructure, new road toll and fuel taxation to favour CT Additional ambitious regulatory improvements for CT to support Green Deal objectives Compared to 2032 baseline, CT is able to win additional 190 BN tkm from long-distance Road 	
Total relevant market size Europe in 2032 (absolute and delta vs. 2019)		2'780 TN tkm (+16.1%)		
Combined Transport volume in 2032 based on scenario assumptions (absolute and delta vs. 2019)	210.5 BN tkm (+17%)	159.1 BN tkm (-11.5%)	400.7 BN tkm (+123%)	241.6 BN tkm
Volume loss / gain Combined Transport - long-distance Road versus baseline (10 year period, 2022 till 2032)	-	-299.1 BN tkm (-16%)	+935.3 BN tkm (+48%)	1.2 TN tkm
Combined Transport market share 2032 (absolute and delta versus baseline)	7.6% ²	5.7% (-1.9%Pts)	14.4% (+6.8%Pts)	8.7%Pts

1 Base scenario slightly below Push scenario, which is in line with UIRR-UIC 2020 Report on Combined Transport in Europe. 2 Combined Transport market share in 2018/19 reported by UIRR at 7.5% based on an overall market size of 2.4 TN TKM. Source: UIRR-UIC 2020 Report on Combined Transport in Europe, UIRR-Oliver Wyman estimations



The cumulative worst-case volume effect of the new EU Road Haulage Rules compared to an ambitious development path to support the European Green Deal objectives could add up to 1.2 trillion tonnes kilometres over 10 years²¹. Combined Transport would see a market share difference of up to 8.7%-points between “full impact of the new EU Road Haulage Rules” scenario and a “Combined Transport in a Green Deal set-up” scenario in 2032.

Other negative effects would result from additional external costs. The additional 1.2 trillion tonnes kilometres over 10 years on long-distance Road Haulage would create additionally 49 million tonnes

²¹ Worst-case volume effect of the new EU Road Haulage Rules is estimated as the difference between scenario “Full Impact of the new EU Road Haulage Rules” and “Combined Transport in a Green Deal set-up” and represents the unrealised volume growth of Combined Transport, which is instead transported on long-distance Road Haulage

of CO₂²². The additional external costs were estimated at €31.2 billion, based on the Handbook on the external Costs of Transport²³ and include four cost categories – Climate Change, Air Pollution, Congestions and Accidents.

Exhibit 21: Summary of the external costs by scenario

Scenarios for Combined Transport		New EU Road Haulage Rules	Green Deal	Difference <i>green deal/decline</i>
Volume loss / gain Combined Transport -long-distance Road versus baseline (10 year period, 2022 till 2032)		-299.1 BN tkm (-16%)	+935.3 BN tkm (+48%)	1.2 TN tkm
Additional cumulative CO₂ emissions versus baseline (2022 till 2032) ¹ Estimated based on difference between avg. CO ₂ -emission factor of 62g CO ₂ /tkm for road transport and 22 g CO ₂ /tkm for rail transport		+12.0 MN tCO ₂	-37.4 MN tCO ₂	49.4 MN tCO ₂
Additional external costs² Due to volume shift from Combined Transport to Road Haulage based on avg. external cost difference Road and Rail	Climate Change Difference of €-cents 0.53 per tkm	€ 1.6 BN	€ -5.0 BN	€ 6.6 BN
	Air pollution Difference of €-cents 0.756 per tkm	€ 2.3 BN	€ -7.1 BN	€ 9.4 BN
	Congestions (inter urban) Difference of €-cents 0.03 per tkm	€ 0.1 BN	€ -0.3 BN	€ 0.4 BN
	Accidents Difference of €-cents 1.20 per tkm	€ 3.6 BN	€ -11.2 BN	€ 14.8 BN
	Sum of four categories	€ 7.6 BN (€ 0.8 BN p.a.)	€ -23.6 BN (€ -2.4 BN p.a.)	€ 31.2 BN (€ 3.1 BN p.a.)

1 Based on Guidelines for measuring and Managing CO₂ Emission from Freight Transport Operations. 2 Based on Handbook on the external Costs of Transport, European Commission, Version 2019 (1.1.), assumption used for climate change is €100/tCO₂ equivalent.
Source: ECTA: Guidelines for Measuring and Managing CO₂ Emissions from Freight Transport Operations, European Commission: Handbook on the external costs of transport, UIC-UIRR 2020 Report on Combined Transport in Europe, UIRR-Oliver Wyman estimations

²² Estimated based on difference between average CO₂-emission factor of 62g CO₂/tkm for road transport and 22 g CO₂/tkm for rail transport. Source: ECTA (European Chemical Transport Association), Guidelines for Measuring and Managing CO₂ Emissions from Freight Transport Operations, Issue 1, March 2011

²³ Handbook on the External Costs of Transport, European Commission, Version 2019 (1.1.)

5. CONCLUSIONS

There is no doubt about the positive intention of the new EU Road Haulage Rules for a safer, more efficient and socially responsible road transport sector. However, the research including the stakeholder survey as well as the analyses conducted during the study, support the conclusion that the new EU Road Haulage Rules could strongly impact the future development of Combined Transport.

In summary, the new EU Road Haulage Rules could:

- Trigger – once the new EU Road Haulage Rules become applicable in early 2022 – higher cost for non-domestic road hauliers involved on domestic legs in Combined Transport. Based on the survey results and the respective analyses, this effect could be on average around 16%. As a result, this could lead to higher end-to-end cost of Combined Transport using non-domestic road hauliers on first / last mile between 6% and 9% subject to transport distance. The survey results also suggest that the cost increase of long-distance Road Haulage – direct competitor of Combined Transport – could be only around 5%, as long-distance Road Haulage could benefit from further productivity and optimisation gains and therefore better compensate the impacts of the new EU Road Haulage Rules.
- Weaken the competitiveness of Combined Transport versus long-distance Road Haulage, especially in end-to-end transports below 1'000 kilometres. For mid-haul distances (between 500 km and 1'000 km) the cost gap between Combined Transport and long-distance Road Haulage could increase from 10% to 13% based on the surveyed market estimations and analysed examples.
- Put approximately 8% of the underlying Combined Transport annual transport volume – equivalent to approximately up to 14.4 billion tonnes kilometres or 0.6%-points of 7.2% Combined Transport's market share in 2019 – at risk of being disrupted by the new regulatory frame of the new EU Road Haulage Rules. The potential suspension of Article 4 Combined Transport Directive by all European Member States would account for approximately 55% of this effect.
- Lead in a worst-case scenario and compared to an ambitious development path to support the European Green Deal objectives, to a lower volume growth of Combined Transport of up to cumulative 1.2 trillion tonnes kilometres over 10 years (approximately 6.6x the volume in 2019 or up to 8.7%-points less market share gain). Based on the assumption that these volumes would be transported on long-distance Road Haulage, it would trigger up to additional 49.4 million tonnes of CO₂ emissions and €31.4 billion of external costs, both over a period of 10 years.

To achieve further improvement and avoid the potential negative impacts of the new EU Road Haulage Rules on Combined Transport, following three activities are recommended as next steps:

- Intensify corporate as well as political stakeholder dialog regarding the expected impact of the new EU Road Haulage Rules on Combined Transport in general and the importance of refraining from the right of suspending Article 4 of the Combined Transport Directive in particular
- Where needed and appropriate, define activities to mitigate potential negative effects of the new EU Road Haulage Rules on Combined Transport, and support implementation
- Define and promote further activities and investments to strengthen Combined Transport to fully realise its benefits in future.

APPENDIX

Appendix 1 a-d: Overview of main regulatory changes of the new EU Road Haulage Rules, reference to changed / amended Regulations and Directives and expected impact on Road Haulage and/or Combined Transport

OVERVIEW OF CHANGES TO THE LEGAL FRAMEWORK OF ROAD HAULAGE WITH IMPACT ON ROAD HAULAGE AND COMBINED TRANSPORT (1/4)

Impact area	Regulatory changes	Reference to amendments to Regulation (EC) No 1071/2009, No. 1072/2009, No. 561/2006 and Directive 2006/22/EU ¹	Impact ²	
			RH	CT
 Access to market	Possibility to suspend Article 4 of Combined Transport Directive and impose limitation to cabotage rights on domestic road legs of cross-border Combined Transport	<ul style="list-style-type: none"> Member State may, where necessary to avoid misuse of (...) provision of unlimited and continuous services consisting in initial or final road legs within a host Member States that form part of CT operations between Member States, provide that Article 8 of this Regulation apply to hauliers when they carry out such initial and/or final road haulage legs within that Member State. With regard to such road haulage legs Member State may provide for a longer period than the 7-day period provided for in Article 8(2) and may provide for a shorter period than the 4-day period provided for in Article 8(2a). (Article 10 §7, amend. Reg. (EC) No. 1072/2009) 	(*)	*
	Added provision of "cooling-off period" of 4 days to prevent systematic cabotage in same Member State to the present cabotage rule that permits 3 cabotage operations within a 7 day period before the truck must engage in a cross-boarder assignment	<ul style="list-style-type: none"> Road transport undertakings are not allowed to carry out cabotage operations, with the same vehicle, or the case of a coupled combination, the motor vehicle of that same vehicle, in the same Member State within 4 days following the end of its cabotage operation in that Member State. (Article 8 § 2a, amend. Reg. (EC) 1072/2009) 	*	(*)
	Inclusion of light goods vehicles (≥ 2.5 and ≤ 3.5 t) in int. RH in the new regulation	<ul style="list-style-type: none"> By way of derogation (...) Regulation shall, (...) not apply to (...) vehicles the permissible laden mass of which does not exceed 3.5 tonnes engaged exclusively in national transport operations in their Member State of establishment (...) vehicles the permissible laden mass of which does not exceed 2.5 tonnes (Article 1 § 4 f, amend. Reg. (EC) No. 1071/2009) 	*	

1. A detail comparison of current and amended regulation incl. detailed mark-up of changes is separately available. 2. Legend: * = direct impact, (*) = indirect impact
 Source: Expected changes to Regulations (EC) No. 1071/2009, (EC) No. 1072/2009, (EC) No 561/2006 and Directive 2006/22, trialogue results, Brussels December 2019, Oliver Wyman Analysis

OVERVIEW OF CHANGES TO THE LEGAL FRAMEWORK OF ROAD HAULAGE WITH IMPACT ON ROAD HAULAGE AND COMBINED TRANSPORT (2/4)

Impact area	Regulatory changes	Reference to amendments to Regulation (EC) No 1071/2009, No. 1072/2009, No. 561/2006 and Directive 2006/22/EU ¹	Impact ²	
			RH	CT
 Sizing of locations, planning of trucks and drivers	New "balancing" rule between supply (vehicles and drivers) and demand on county level	<ul style="list-style-type: none"> Have vehicles at its regular disposal a number of vehicles (...) and drivers normally based at an operational centre in the Member State, proportionate to the volume of transport operations carried out by the undertaking (Article 5, § 1g, amend. Reg. (EC) No. 1071/2009) 	*	(*)
	Organise the return of vehicle used in international carriage to operational centres of registry at least within 8 weeks after leaving it	<ul style="list-style-type: none"> Organise vehicle fleet's activity to ensure that vehicles at the disposal of the undertaking and used in international carriage return to one of the operational centres in that MS State at least within 8 weeks after leaving it (Article 5, amend. Reg. (EC) No. 1071/2009) 	*	(*)
	Organise work of drivers in such a ways , that drivers working in int. freight transport will have the right to return home/take their rest at home within each period of three consecutive weeks	<ul style="list-style-type: none"> A transport undertaking shall organise the work of drivers in such a way that the drivers are able to spend at least one regular weekly rest period or a weekly rest of more than 45 hours taken in compensation for reduced weekly rest at home within each period of three consecutive weeks (Article 8a, amend. Reg. (EC) No. 561/2006) 	*	(*)
	Apply adapted driver rest outside the vehicle during the 48-hour rest periods and all duty times must be eligible for compensation	<ul style="list-style-type: none"> Additional minimum rest periods incl. comprehensive mechanisms with regards to exemptions and compensation rules. (Article 8, Article 12, amend. Reg. (EC) No. 561/2006) 	*	(*)

1. A detail comparison of current and amended regulation incl. detailed mark-up of changes is separately available. 2. Legend: * = direct impact, (*) = indirect impact
 Source: Expected changes to Regulations (EC) No. 1071/2009, (EC) No. 1072/2009, (EC) No 561/2006 and Directive 2006/22, trialogue results, Brussels December 2019, Oliver Wyman Analysis

OVERVIEW OF CHANGES TO THE LEGAL FRAMEWORK OF ROAD HAULAGE WITH IMPACT ON ROAD HAULAGE AND COMBINED TRANSPORT (3/4)

Impact area	Changes (additional regulation)	Reference to amendments to Regulation (EC) No 1071/2009, No. 1072/2009, No. 561/2006 and Directive 2006/22/EU ¹	Impact ²	
			RH	CT
 Operating conditions	Higher requirements for full activity documentation for events (especially cabotage) where a RH vehicle has been in a MS within the period of 4 days following an during operations	<ul style="list-style-type: none"> For events where the vehicle has been in a MS within the period of 4 days preceding the int. carriage, the haulier needs to provided evidence of all operations that were carried out during that period Information with regards to activities connected to cabotage within the period of 4 days preceding the int. carriage, need to be presented to officer on request and within the duration of the roadside checks (Article 8 § 3 and Article 4a, amend. Reg (EC) No. 1072/2009) 	*	(*)
	Clearly defined rules for calculation of the periods of posting (on the territory of one or another MS) to fulfil obligations relating to the posting of drivers	<ul style="list-style-type: none"> Clearly defined rules for calculation of the periods of posting (i.e. working period shorter than 6 hours spent in a territory is considered as half a day or breaks and rest periods as well as periods of availability are considered as working period) Clearer rules when and with which information to send posting declarations (Article 2 – 4, specific rules on posting in the road transport sector prevailing over certain provisions of Directive 96/71/EC and 2014/67/EU) 	*	(*)
 Administration & management processes	Introduction of higher compliance requirements for agencies of RH companies in Member States	For each premise: <ul style="list-style-type: none"> Have full access to entire core business documentation Be registered in the register of commercial companies of the MS Be subject to tax on revenues and have a registered VAT No. Have at its disposal (≥1) vehicles registered/put into circulation Conduct its admin and commercial activities with appropriate equipment, manage transport ops using vehicles with tech. equipment in the MS Additional trainings (every 3 years) for staff (Article 5 § 5 and Article 8, amend. Reg. 1071/2009) 	*	(*)

1. A detail comparison of current and amended regulation incl. detailed mark-up of changes is separately available. 2. Legend: * = direct impact, (*) = indirect impact
Source: Expected changes to Regulations (EC) No. 1071/2009, (EC) No. 1072/2009, (EC) No 561/2006 and Directive 2006/22, trialogue results, Brussels December 2019, Oliver Wyman Analysis

OVERVIEW OF CHANGES TO THE LEGAL FRAMEWORK OF ROAD HAULAGE WITH IMPACT ON ROAD HAULAGE AND COMBINED TRANSPORT (4/4)

Impact area	Regulatory changes	Reference to amendments to Regulation (EC) No 1071/2009, No. 1072/2009, No. 561/2006 and Directive 2006/22/EU ¹	Impact ²	
			RH	CT
 Administration & management processes	Member State will be tasked with additional control duties and enforcement possibilities, incl. rights for sanctions in case of non-compliance	<ul style="list-style-type: none"> Obligations to regularly monitor and control (even with side inspections) the fulfilment of the requirements of the amended regulation Member States shall, at least twice per year, undertake concerted roadside checks on cabotage operations. Checks need to be organised in a way that at least 3% of days worked by drivers of vehicles are checked Strengthening functions and content of National Electronic Register Member States shall introduce a risk rating system for undertakings based on the relative number and severity of any infringement (...) that an individual undertaking has committed. Every two years MS need to report status of cooperation between MS (Article 14 § 1, Article 16, Article 18 § 2-11, amend. Reg. 1071/2009, Article 10a and Article 17, amend. Reg. 1072/2009, Paragraph 3 Article 2, Article 8 § 1a, Article 9 amend. Directive 2006/22) 	(*)	(*)
	Focus on good repute and reduced infringements	<ul style="list-style-type: none"> Increased possibilities for control and administrative procedures in case of criminal offence or serious infringements of Union rules Introduction of stricter rules and ban periods in case of non-compliance with new regulations for transport managers (Article 6 § 1 - 2, amend. Reg. 1071/2009) 	(*)	(*)
	Add. requirement of financial reserves for light vehicles)	<ul style="list-style-type: none"> Additional requirements for financial reserves for vehicles between 2.5 and 3.5 t (EUR 900 per vehicle) (Article 7 §1, amend. Reg. 1071/2009) 	*	

1. A detail comparison of current and amended regulation incl. detailed mark-up of changes is separately available. 2. Legend: * = direct impact, (*) = indirect impact
Source: Expected changes to Regulations (EC) No. 1071/2009, (EC) No. 1072/2009, (EC) No 561/2006 and Directive 2006/22, trialogue results, Brussels December 2019, Oliver Wyman Analysis

Appendix 2 a-d: Overview of expected changes on first / last mile on road of Combined Transport

ASSESSMENT OF REGULATORY CHANGES IMPACTING FIRST / LAST MILE ON ROAD OF COMBINED TRANSPORT (1/4)

Main regulatory changes in road haulage	Situation today	Expected change	Potential effects
 Suspension of Article 4 of Combined Transport Directive Exemption of domestic road legs of international Combined Transport operations from cabotage restriction (often reflected on as „legal equivalence“ between international road haulage and the international Combined Transport operation that corresponds to it)	<ul style="list-style-type: none"> No limitations 	<ul style="list-style-type: none"> Possibility for Member States to impose limitation to cabotage rights on domestic road legs of cross-border Combined Transport (3 cabotage activities with 7 days in a Member State) plus A “cooling-off period” within 4 days following end of cabotage and limit max cabotage window to 7 days Member States may define slightly different periods for Combined Transport road-leg-related cabotage operations from the general cabotage rules 	<ul style="list-style-type: none"> Reduced ability to source (capacity) from foreign truckers Replacement of cabotage with local haulage Increased cost of vehicles and drivers due to lower productivity
 Cabotage in Member States Rights of a non-domestic road haulier to conduct a domestic (cabotage) transport in a Member State	<ul style="list-style-type: none"> 3 cabotage activities with 7 days in a Member State 	<ul style="list-style-type: none"> Number of cabotage activities remain unchanged Additionally: Cooling-off period of 4 days introduced to prevent systematic cabotage in the same Member State 	<ul style="list-style-type: none"> Reduced ability to source (capacity) from foreign truckers Replacement of cabotage with local haulage Increased cost of vehicles and drivers due to lower productivity

Source: Expected changes to Regulations 1071 and 1072/2009 and Directive 2006/22, trialogue results, Brussels December 2019, Oliver Wyman Analysis

ASSESSMENT OF REGULATORY CHANGES IMPACTING FIRST / LAST MILE ON ROAD OF COMBINED TRANSPORT (2/4)

Main regulatory changes in road haulage	Situation today	Expected change	Potential effects
 Transport documents during Cabotage Documentation providing evidence of all operations that were carried out during the cabotage periods	<ul style="list-style-type: none"> No specific requirements 	<ul style="list-style-type: none"> Haulier to provide evidence of every operation carried out in a Member State within the period of 4 days preceding the international carriage. During roadside checks, evidence is to be presented immediately to inspection officer 	<ul style="list-style-type: none"> Potentially higher administrative, compliance and operational cost
 Vehicle and driver positioning by countries Rules regarding positioning and planning of trucks and drivers according to transported volumes in Member States	<ul style="list-style-type: none"> No specific requirements 	<ul style="list-style-type: none"> Trucks and drivers based at an operational centre in the Member State will need to be proportionate to the volume of transport operations carried out by the undertaking within the Member State 	<ul style="list-style-type: none"> Adapted productivity (increased cost) of trucks/drivers due to lower optimisation potential in a resized (smaller) country base (no cross-country pooling)
 Vehicle management Requirements when and how a truck used in international carriage must return to operational centres of registry	<ul style="list-style-type: none"> No specific requirements 	<ul style="list-style-type: none"> International truck rotation needs to be organised in such way, that the truck returns to operational centre of registry at least within 8 weeks after leaving it (currently unclear whether the rule applies to the semi-trailer) 	<ul style="list-style-type: none"> Reduced productivity of both trucks and drivers leading to higher operational cost Lower offering of capacity

Source: Expected changes to Regulations 1071 and 1072/2009 and Directive 2006/22, trialogue results, Brussels December 2019, Oliver Wyman Analysis

ASSESSMENT OF REGULATORY CHANGES IMPACTING FIRST / LAST MILE ON ROAD OF COMBINED TRANSPORT (3/4)

Main regulatory changes in road haulage	Situation today	Expected change	Potential effects
 Driver management Requirements when and how a driver work in international carriage is entitled to return/take the rest at home	<ul style="list-style-type: none"> No specific requirements 	<ul style="list-style-type: none"> International driver scheduling needs to be organised in such way, that eligible driver returns home within each period of 3 consecutive weeks 	<ul style="list-style-type: none"> Reduced productivity of both trucks and drivers leading to higher operational cost Lower offering of capacity
Driver rest and duty times eligible for compensation	<ul style="list-style-type: none"> General regulation regarding working 	<ul style="list-style-type: none"> Additional minimum rest periods outside the vehicle, clearer and more comprehensive mechanisms with regards to exemptions and compensation rules 	<ul style="list-style-type: none"> Higher personnel/driver cost especially for those, engaged in long-haul road transport
Posting rules for non-domestic drivers in a Member State	<ul style="list-style-type: none"> General regulation (across all industry sectors) 	<ul style="list-style-type: none"> Stricter, more comprehensive and tailored to road transport catalogue of posting including remuneration rules 	<ul style="list-style-type: none"> Potentially lower driver productivity Higher administrative as well as employment costs

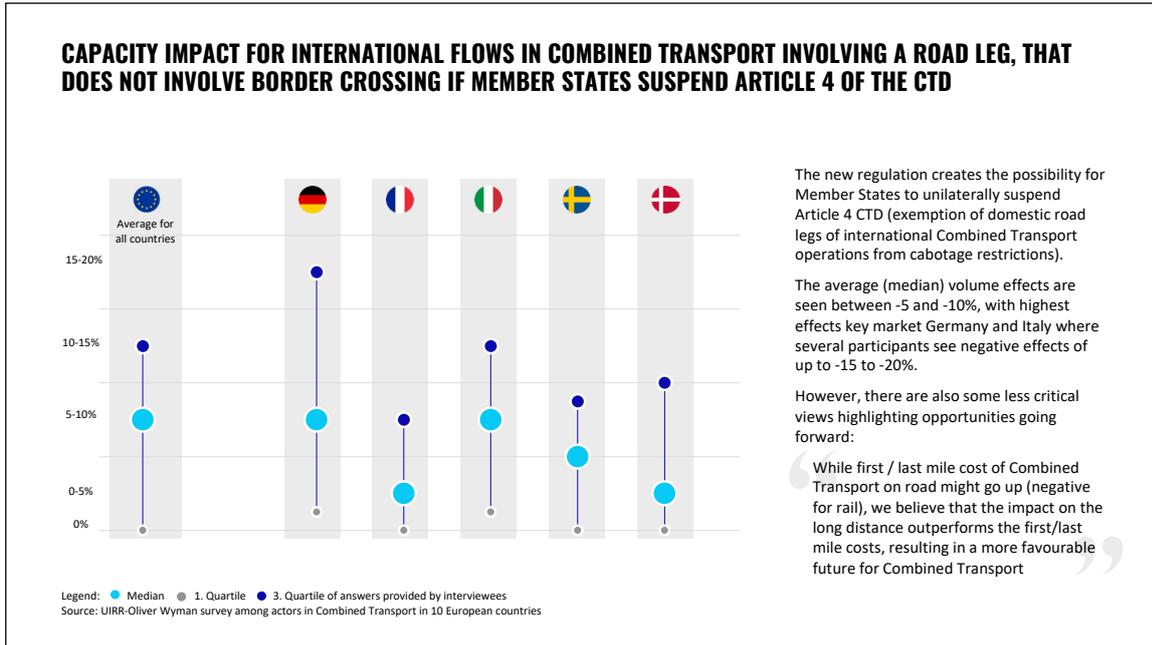
Source: Expected changes to Regulations 1071 and 1072/2009 and Directive 2006/22, trialogue results, Brussels December 2019, Oliver Wyman Analysis

ASSESSMENT OF REGULATORY CHANGES IMPACTING FIRST / LAST MILE ON ROAD OF COMBINED TRANSPORT (4/4)

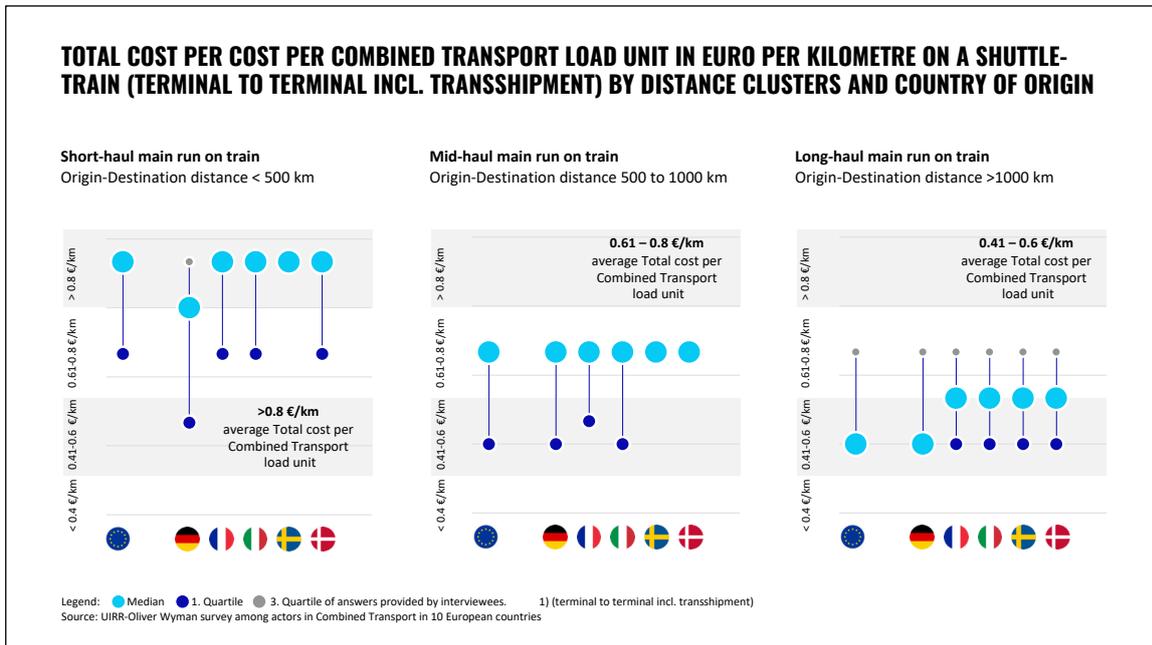
Main regulatory changes in road haulage	Situation today	Expected change	Potential effects
 Administration & management processes Requirements how a local agency needs to be managed on a daily basis	<ul style="list-style-type: none"> General regulation regarding requirement of agencies 	<ul style="list-style-type: none"> Higher, standardized requirements per road haulage agency in Member States, such as for instance: <ul style="list-style-type: none"> Have full access to entire core business documentation Be in the local register of commercial companies of the Member State Be subject to tax on revenues and have a registered VAT number Provide training (minimum every 3 years) for staff 	<ul style="list-style-type: none"> Potentially higher administrative, compliance and operational costs
Member State control duties, enforcement possibility and rights for sanctions in case of non-compliance	<ul style="list-style-type: none"> Varying requirements per Member State 	<ul style="list-style-type: none"> Common, binding standards for all Member States including Higher monitoring and control requirements, i.e. 2x per year roadside checks on cabotage operations, check of 3% of driver working days Stronger functions/content of National Electronic Register Introduction of a risk rating system for undertakings based on the relative number and severity of actual infringement 	<ul style="list-style-type: none"> Higher level of control and probability for sanctions in case of non compliance Higher cost in case of sanctions

Source: Expected changes to Regulations 1071 and 1072/2009 and Directive 2006/22, trialogue results, Brussels December 2019, Oliver Wyman Analysis

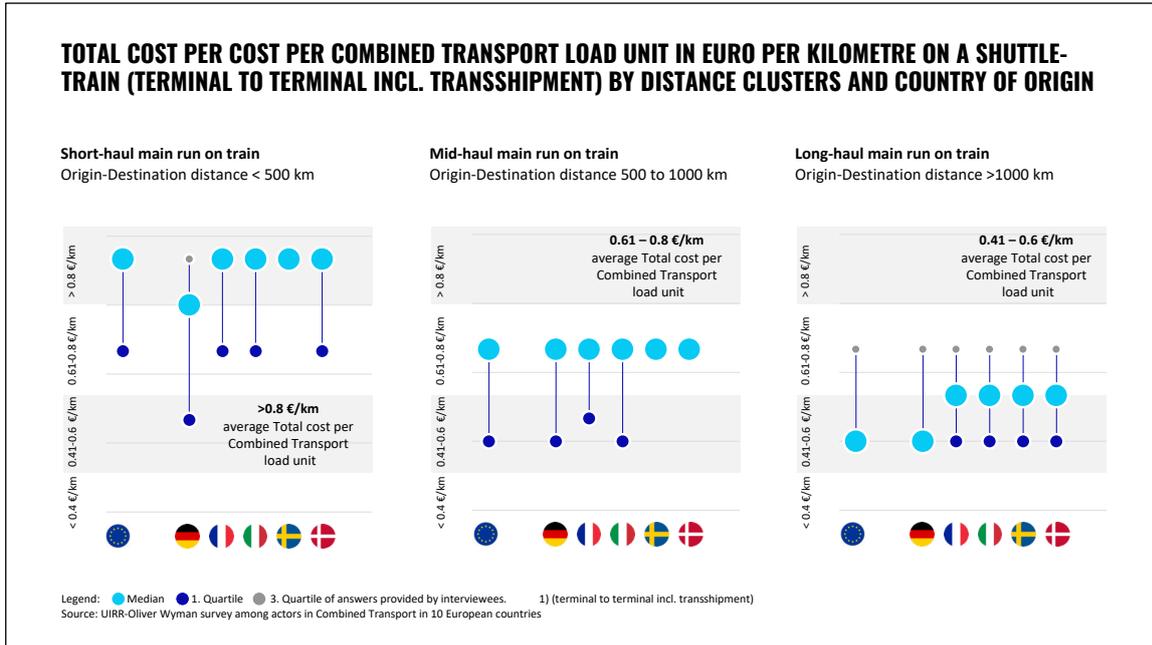
Appendix 3: Expected capacity impact in case of suspension of Article 4 CTD



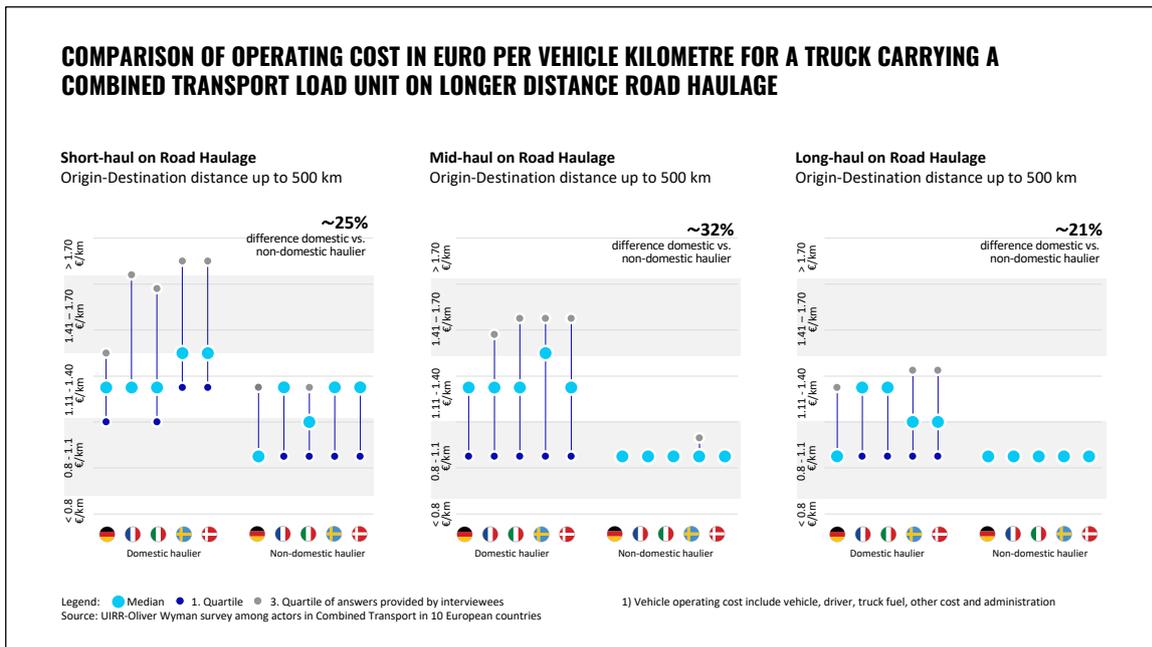
Appendix 4: Cost per Combined Transport load unit on a shuttle-train (main run by train in Combined Transport)



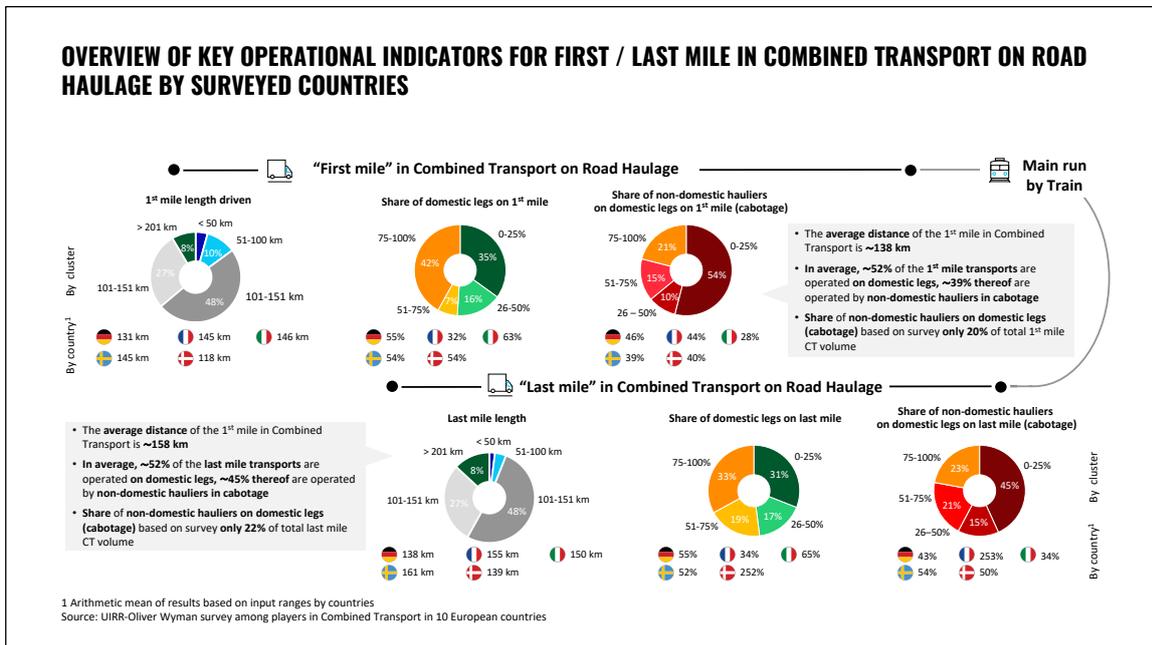
Appendix 5: Operating cost per Combined Transport load unit on long-distance Road Haulage



Appendix 6: Operating cost for a truck carrying a Combined Transport load unit on long-distance Road Haulage



Appendix 7: Key operational indicators for first / last mile in combined transport on Road Haulage by surveyed countries





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