



VOL. 2 - SEPTEMBER 2024

# Expert study on the state of finished vehicle logistics on rail in Europe 2024

including insights on market dynamics, business models and strategies with a focus on rail

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# Introduction & Management Summary

Dear reader,

Automotive, and specifically outbound logistics, remains a challenging task and an attractive market segment for the next decade facing significant trends, e.g. recovering transport volumes, high demand to modernize assets and the necessity to increase the overall performance of the rail system.

Within this second edition of our study, we observe an increasing dynamic by all stakeholders to develop their business models and seek for new roles to improve their market position:

- All OEMs are initiating new activities to increase their control of logistics operations, testing own asset management and seeking for new traffic concepts in longer-term partnerships
- Logistics Service Providers are pushed to optimize their networks, service offering and their depth of value creation. New players are challenging the incumbents with their expansion in rail transports
- We see a renaissance of rail operations management through new traffic designs, innovative production concepts and partnership-based operating models. This approach requires specific skills and offers chances for railway undertakings with automotive competence
- More Asset Providers are intensifying their engagements in automotive and create new options for all players by providing a significant number of modern wagons in the next decade

All players should fix their position in the ecosystem and define their strategy and target operating model to benefit from rail's structural growth for automotive transports. This study aims to offer insights into the right strategic moves by understanding the patterns of the FVL ecosystem.

Please enjoy reading.

Warm regards, the authors

**AUTOMOTIVE MARKET**

# Automotive market and transport demand

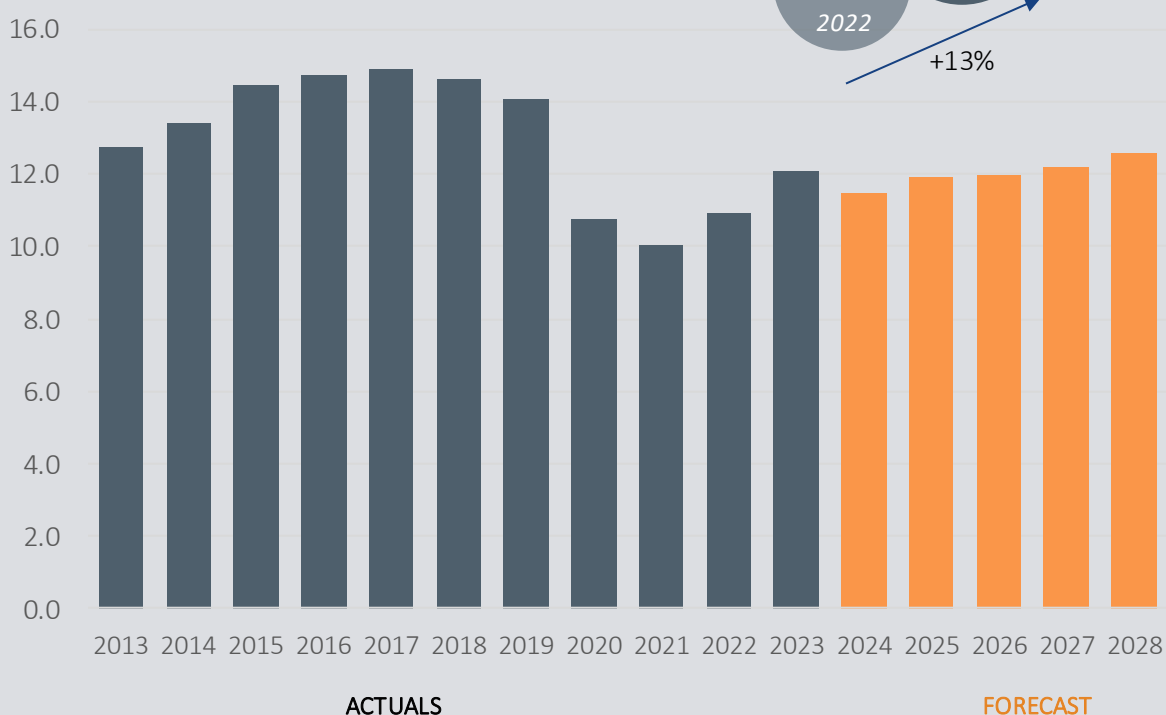
## Transport demand is steadily recovering, driven by imports

The demand for continental transport in Europe is driven by the total production of cars in Europe and the volume of imports.

In 2023, car production in Europe saw an increase of 11.3%, reaching 12.1 million passenger vehicles. Notably, production in Germany and the Czech Republic experienced significant growth. Despite this, European production levels remain well below pre-COVID figures and are comparable to those seen in the 1990s.

— *“A return to pre-COVID production levels is not anticipated due to ongoing supply chain disruptions and the shift in consumer demand.”* —  
 — OEM —

Figure 1:  
 Car production in the EU (in million units)

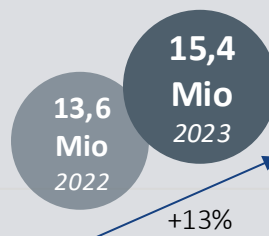


Car imports into the European Union rose by 23.7%, increasing from 2.7 million to 3.3 million vehicles. Consequently, the total demand for continental transports in 2023 amounted to 15.4 million cars, up from 13.6 million in 2022. Manufacturers’ forecasts remain cautious. A decline in production is anticipated for the coming year, with modest growth expected in subsequent years, as shown in Figure 1 below. A return to pre-COVID production levels is not anticipated.

## Imports are driven by EVs from China

China maintained its position as the leading country of origin for imports, with 676,848 vehicles imported in 2023. This represents an increase of nearly 40% compared to the previous year.

Figure 2:  
 Total transport demand (in million cars)



## AUTOMOTIVE MARKET

### More balanced flows between ports and hubs due to imports and distribution within Europe

Last year, a total of 3.3 million cars were imported, while 4.7 million were exported. The rise in imports, however, presents an opportunity to balance transport flows in Europe and optimize asset utilization. We expect more spread in transport volumes, which will require more open solutions to harvest the potential of balancing the flows.

### The increasing weight and size of cars continue to drive the demand for flexible wagon equipment

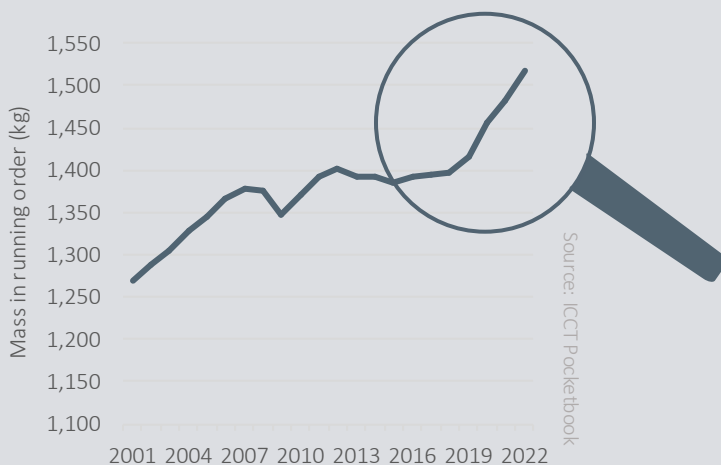
The average car weight has surged in recent years as SUVs and electric vehicles (EVs) have gained popularity and market viability as shown in Figure 3 below. In 2023, EVs accounted for 14.6% of new registrations in Europe. Combustion engine vehicles still dominate the market, followed by hybrid electric vehicles, with diesel and pure EVs alternating in third place in the monthly rankings.

Forecasts predict that the registration share of EVs could reach between 50% and 70% by 2030. SUVs now make up over 51% of new car registrations in Europe, underscoring their continued popularity despite environmental concerns. The SUV market is projected to grow by 4.4% annually until 2030,.

The growing interest in SUVs and electric vehicles is undoubtedly driving up the demand for suitable transport assets in Europe.

Figure 3:

### Average car weight in Europe



### Notes on Chinese OEMs

As Chinese vehicles enter major European ports, they are straining transport and storage capacities. Slower-than-expected sales have led to a buildup of vehicles in ports like Zeebrugge, overburdening capacity and port logistics. Additionally, the relatively low volumes often render rail transport unfeasible, leaving road transport as the primary option, so that these players join the battle for limited transport resources in the future.

Chinese manufacturers are still refining their European strategies, often lacking clear distribution plans or established dealer networks. This uncertainty leads to inefficiencies in transport logistics and prevents long-term logistics planning.

Despite these challenges, opportunities exist for logistics providers. The need for transport solutions creates potential for backhaul opportunities, in securing return loads from ports. For this, Chinese players need to be integrated into the process of planning backloads. Digital tools that act as a platform making train capacities visible would be a first step. Chinese companies have shown interest in these options, but access to transport networks remains a challenge.

## AUTOMOTIVE MARKET

### Changed demand structures and flows due to new production capacities in Eastern Europe

The ongoing expansion of production capacities in Eastern Europe by various manufacturers is reshaping transport flows and worsening the imbalances between Eastern and Western Europe to which LSPs need to find solutions. A key trend driving this change is the increasing emphasis on "local for local" production strategies. OEMs are increasingly shifting towards localized manufacturing to better meet regional demands, reduce carbon footprints, and to avoid tariffs. This transition is part of a broader initiative to enhance sustainability, mitigate supply chain risks, and adapt to regional market conditions.

Despite the growing prominence of local production, significant vehicle movement across oceans persists, indicating a continued blend of local manufacturing and international trade.

### Tariffs on imports from China create uncertainty but could further change transport patterns

The European Union has recently imposed preliminary tariffs on electric vehicles (EVs) imported from China, with rates ranging from 17.4% to 37.6%, depending on the manufacturer. These tariffs are designed to protect the European automotive industry from the influx of significantly cheaper Chinese EVs, which benefit from substantial state subsidies. In response, China has filed a complaint with the World Trade Organization (WTO), arguing that the tariffs are unfair and restrictive to trade.

In the coming months, the EU Commission will decide whether to make these tariffs permanent. Given the evidence of unfair subsidies, it is likely that the tariffs will be upheld to protect the European EV industry. If these tariffs are maintained, they could incentivize European manufacturers to increase local production, thereby reducing reliance on Chinese imports. Additionally, Chinese OEMs will consider to move part of their production of electric vehicles to Europe. Both outcomes would lead to increased demand for continental transport.

The situation remains fluid, with political and economic developments expected to significantly impact trade between Europe and China in the coming years. The downside of this uncertainty is its impact on the finished vehicle logistics market, because the new production facilities would most likely be established in Eastern Europe, where energy and labour costs are more competitive.

Such a shift in production capacity would therefore further exacerbate the already imbalanced transport demand from east to west. On the positive side, reduced imports could help alleviate congestion in overcrowded ports.

### Market synchronisation amplifies short-term market fluctuations

The finished vehicle logistics market is highly synchronized, with fluctuations impacting all OEMs similarly. Disruptions or congestion in inbound logistics typically impact every OEM equally. Short-term demand shocks often lead to all OEMs scrambling to secure capacity simultaneously, which in turn drives up prices. During and after the pandemic, we observed that attempts by individual OEMs to safeguard capacity independently can be detrimental to overall market optimization.

Despite these challenges, logistics professionals within OEMs operate in a high-pressure environment. Transport issues frequently arise, requiring last-minute rescheduling. OEMs are accustomed to adapting quickly to market changes. However, long-term strategies are also essential to guide future developments and provide service providers and infrastructure operators with the stability needed for their investment decisions.

## AUTOMOTIVE MARKET

In 2024 price is back as most important purchasing criteria but in the long-term capacity and carbon emission will become more important

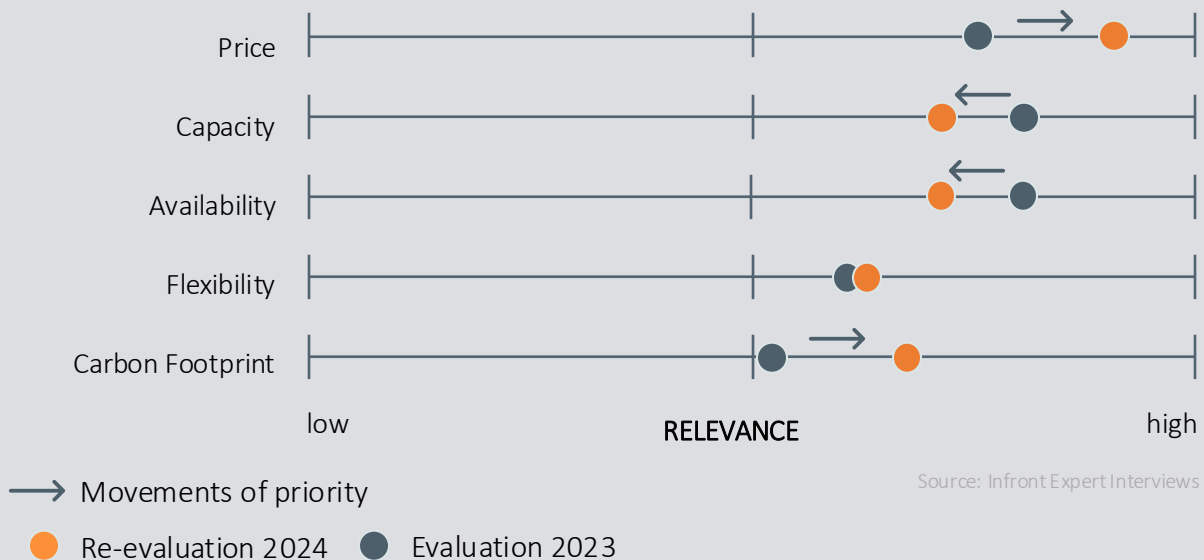
While the after-effects of the pandemic and the resulting capacity bottlenecks were the primary drivers for purchasing decisions in 2023, the market has since eased somewhat. For instance, many charter trucks have returned to the market, easing the pressure on capacity. Consequently, price has once again become the primary factor influencing purchasing decisions, with capacity and availability now taking a secondary role in the criteria for selecting logistics services.

The most significant shift from 2023 to 2024 is the increased emphasis on CO<sub>2</sub> savings. Whereas last year’s discussions largely focused on securing capacity, carbon emissions have now become a key topic at the C-level and we see that CO<sub>2</sub> requirements become part of tenders and are included in the decision making process.

Chinese OEMs, however, are largely excluded from this trend, as their operations are too small to align with these broader concerns. For them, transport costs remain the most critical consideration by far.

We have also noticed a greater relevance of flexibility as an OEM purchasing criteria, particularly in the rail sector, where those players who demonstrate a high level of flexibility within the bounds of feasibility are emerging as the winners. The impact of this shift is illustrated in Figure 4 below.

Figure 4:  
Assigned relevance to OEM purchasing criteria



Source: Infront Expert Interviews

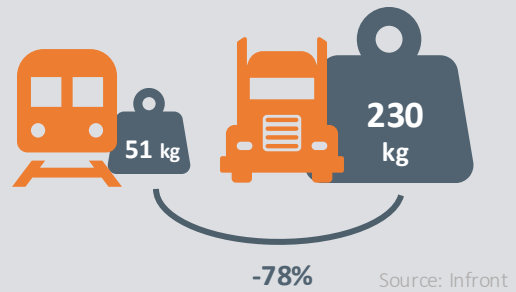
## AUTOMOTIVE MARKET

### Environmental factors are important drivers of rail transports

With sustainability becoming an ever more pressing priority, the environmental benefits of rail transport – especially when powered by renewable energy – are gaining broader recognition. Although not all rail networks across Europe currently operate on green electricity, there is a strong industry push to expand the use of renewable energy within the rail sector. This shift would significantly enhance rail's appeal as a sustainable transport solution.

The collective effort among OEMs to shift more logistics operations onto rail, wherever possible, reflects the industry's commitment to reducing its carbon footprint and achieving long-term sustainability objectives. When calculating the transport emissions of a 1.5 tonnes heavy car over a distance of 600 km, about 78% of carbon emission can be saved when switching to rail transports, as shown in Figure 5, underscoring its critical role in minimizing the logistics sector's environmental impact.

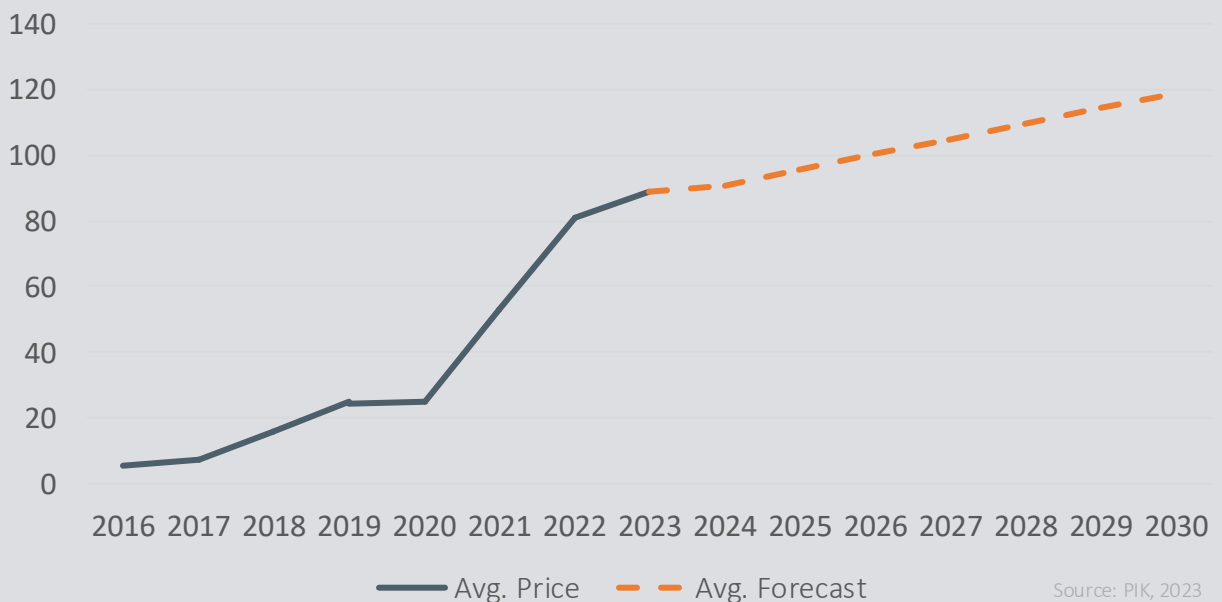
Figure 5:  
Real life CO<sub>2</sub> emissions case



### Price of carbon emissions

The financial impact of carbon emission is becoming increasingly apparent as CO<sub>2</sub> prices are expected to continue rising in the coming years. At a CO<sub>2</sub> price of €100, approximately €18 in emission costs can be saved per vehicle transported over a 600 km route. All sources of CO<sub>2</sub> price indices predict a similar upward trend in costs in the near future (Figure 6 below), further emphasizing the economic benefits of reducing emissions through more sustainable transport options.

Figure 6:  
Price development of EUA in the European Union Emissions Trading System



## AUTOMOTIVE MARKET

### Car registrations and implications for transport demand

The European automotive market has shown positive momentum in the eight months of the year, with a 1,4 % increase in new car registrations, reaching 7,2 million vehicles compared to the same period last year. Spain and Italy stand out as key drivers of this growth, with new registrations rising by +4,5% and +3,8%, respectively. In contrast, Germany and France experienced a decline of 0,5%. In August 2024, the registrations decreased of 18 % compared to previous year (source: ACEA).

Traditionally, car production in Europe has been efficiency-driven and based on a build-to-stock approach. However, this paradigm has shifted. The rise of electric mobility and a more market-based approach has led manufacturers, especially those of premium brand to an increased focus on build-to-order strategies. In the current market, OEMs are increasingly blending both strategies to balance market demand with production efficiency. Volume manufacturers such as Volkswagen and Renault, as well as Asian EV imports, still lean more towards a build-to-stock approach.

Looking at the figures, petrol power vehicles continue to dominate sales, followed by hybrid models, which account for 35.3% and 29.2% of new registrations, respectively. Diesel vehicles rank third with a 12.9% share, closely followed by electric vehicles at 12.5%.

The market interprets these numbers as a confirmation of ongoing recovery, and a significant adjustment in production volumes is therefore not anticipated. However, the pace of new EV registrations remains somewhat sluggish, warranting close observation.

For the transport sector, these trends confirm a slightly increasing demand for vehicle transportation. Logistics providers can expect stable transport volumes for gasoline and hybrid vehicles, while the transportation of electric vehicles will continue to represent a minority share in the short to mid-term perspective despite the increase in production and demand (depending on the different markets).

### Strategic shift towards rail: OEMs embrace long-term solutions for sustainable and efficient transport

The growing demand for rail services among OEMs underscores the industry's collective commitment to shifting as much transport as possible to rail, as long as it remains economically viable. In many cases, today's transport networks demonstrate that rail can handle high volumes at competitive prices, especially when asset utilization is optimized through effective operational schemes. When managed efficiently, rail transport proves to be more cost-effective and efficient than trucks.

As a best practice, OEMs are increasingly securing long-term contracts with clear volume commitments to stabilize costs and ensure capacity, reflecting their forward-looking strategies. Although rail transport can sometimes be more expensive than road transport, OEMs are opting for rail solutions to better manage capacity and mitigate risk. This push to optimize rail transport, despite its challenges, highlights the industry's broader commitment to sustainability and efficiency.

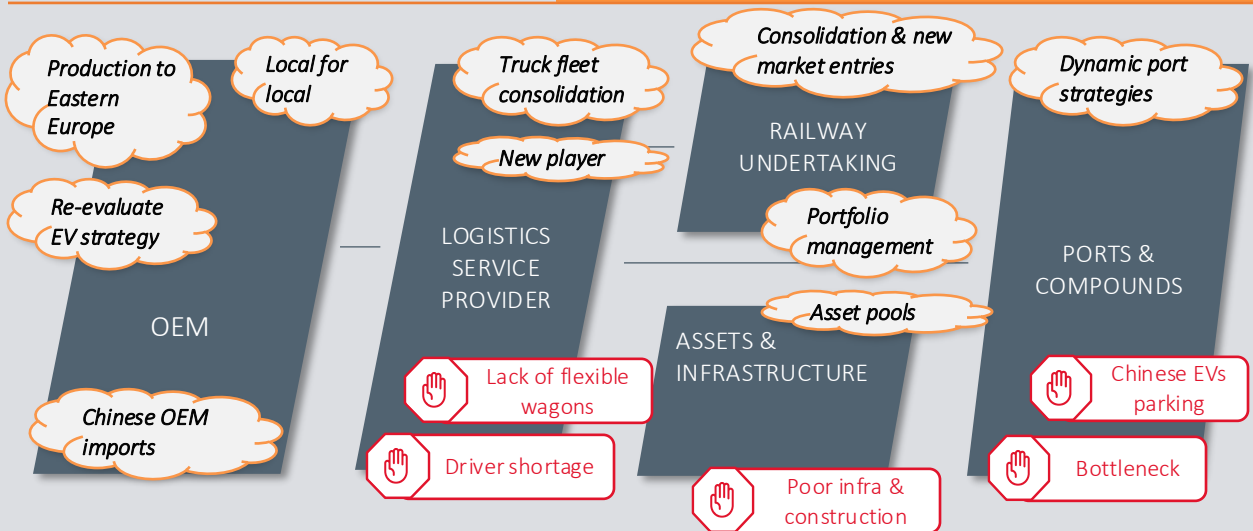
All market players are actively developing rail strategies to determine their future positioning, confident that the share of rail transport will increase. To understand the strategic options available and provide guidance to market players, this study focuses on the role of rail in the evolving logistics landscape.



OUTBOUND LOGISTICS ON RAIL

# The FVL ecosystem, dynamics and barriers to rail

Figure 7:  
Current state of the Finished Vehicle Logistics Ecosystem



## The Finished Vehicle Ecosystem

Apart from the OEMs, the FVL ecosystem consists of Logistic Service Providers (LSP), Railway Undertakings (RUs) and Asset & Infrastructure Providers. These players are in a close exchange relationship with each other, whereby their respective market positions are subject to constant change. Ports and compounds complete the picture as the focal contact point for the distribution of vehicles.

## Trends in Finished Vehicle Logistics

The FVL ecosystem in Europe is rapidly evolving, driven by significant shifts in production strategies, market dynamics, and infrastructure challenges. Major OEMs, including Mercedes, BMW, Volvo, and BYD, are planning new production capacities in Eastern Europe, reflecting a broader trend toward "local for local" production strategies. Additionally, many OEMs are re-evaluating their EV strategies, balancing the push for sustainability with the need to remain flexible and competitive in a volatile market.

Chinese OEMs are also making strategic moves by seeking logistics and production capacities within Europe. This trend underscores the growing importance of the European market for these manufacturers and their desire to establish a more localized presence to mitigate supply chain risks and reduce costs.

We also expect a consolidation of truck fleets as companies strive to optimize operations and achieve economies of scale. At the same time, new service providers are entering the rail business with new flexible models partly enabled through the establishment of wagon pools that enhance flexibility and capacity.

Compounds and ports are increasingly becoming focal points of logistics strategy, especially as Chinese OEMs aggressively secure capacity to handle the rising volume of vehicles being imported into Europe. At the same time various OEMs are developing dynamic port strategies to manage these growing flows effectively, ensuring that their logistics networks remain resilient and the operational throughput is efficient.

## OUTBOUND LOGISTICS ON RAIL

### Rail transports are the backbone of outbound logistics

Rail transport is a vital component in the logistics strategies of OEMs, especially for long-distance routes. For plants with high production volumes, rail transports are not just an option but a necessity, as the scale of their operations makes it impractical to rely solely on trucks. As trucks cannot handle the same volumes or need much more space in the plant, e.g. one train driver replaces up to 30 truck drivers. Rail's capacity to handle large volumes efficiently makes it the backbone of transport solutions, particularly for plants with established rail infrastructure. Currently the most viable rail routes are those to ports, when both origin and destination have rail infrastructure access. However, continental corridors are on the spot of future potential.

### The cost advantage of rail transport on long routes

Rail is most cost-effective and efficient for long-haul routes. This is due to the higher fixed but lower variable costs of using rail transports. The economical favour of rail typically starts on routes above 400-600 kilometres depending on the operational model due to economies of scale. The fixed costs associated with rail are often too high for shorter routes, concepts that prove viable are the exception. At the same time, we do recommend all OEMs to review their rail offerings for truck routes above 400km.

### The largest barriers to efficient FVL-transports on rail

Despite the advantages of rail and the OEMs' efforts to transport more cars by rail, we see five central barriers that currently stand in the way of increasing rail share even further:

- 1. Limited Wagon availability:** There continues to be a lack of flexible double-deck railcars in the market to meet the rising demand for robust assets.

- 2. Infrastructure bottlenecks (ports, rail tracks and compounds):** Compared with our last year's study, the situation in ports has worsened, driven by the increasing influx of Chinese EVs, which are occupying critical storage space highlighting inefficiencies in port processes. For the next decade, rail infrastructure limitations also remain a significant bottleneck, compounded by the current major construction activities and the slow pace of investment in necessary upgrades and expansions.

- 3. Inefficient cooperation between stakeholders:** Additionally, complex coordination is required between different stakeholders, including OEMs, LSPs, and rail operators. Therefore, especially managing capacity and maintaining flexibility and balancing flows to increase asset utilization remain core challenges in the interplay between the different partners.

- 4. Short term, tactical reactions to price instead of strategic planning:** OEMs often continue to act relatively actionistically as a result of price and capacity fluctuations. Especially truck price continues to determine how strong the shift to rail actually is.

- 5. Outdated IT systems and data:** The lack of real-time visibility and reliable ETA predictions further complicates logistics, hindering the ability to quickly adapt. Besides, manual processes and the avoidance of data sharing often prevail, leading to inefficiencies and loss of speed.

These factors collectively emphasize the need for strategic planning, investment in infrastructure, and the adoption of advanced IT solutions to overcome these persistent barriers.

Taking a helicopter view to the market and the ecosystem it seems, that there is a need of industry-wide standards and collaboration to bring the finished vehicles segment to a new level of performance and development.

In the following sector we will take a closer look at limited wagon availability and infrastructure bottlenecks (when it comes to ports and compounds) as one of the most relevant barriers to the shift to rail.

## AUTOMOTIVE WAGONS

### Wagons

The availability of suitable railcars is a critical factor in the automotive industry's push towards increased use of rail transports. Currently, there are between 19.000 and 20.000 wagons technically available in the market. We assume 15.000 wagons are operated. But there is a significant shortage of flexible wagons, particularly those capable of transporting the growing number of SUVs in Europe, which account for roughly 50% of the market. Expert estimates that only 25% of the available fleet is suitable for transporting heavier vehicles efficiently. This shortage is expected to persist over the next 5-10 years, making the timely acquisition of these assets a priority for all FVL players.

To address this, there has been a noticeable increase in ordering of new wagons, a necessary step to alleviate the current capacity constraints. All stakeholders are not only investing in new wagons but are also systematically approaching asset providers to secure the required capacity.

Asset providers for railcars are highly common in other rail transport segments and now moving into the automotive segment. Wagon lessors are now building up their fleets to provide relevant capacity to the market. However, they also compete for limited manufacturing resources.

Manufacturing capacity for automotive wagons is also limited in Europe, given that only two manufacturers survived: Tatravagonka and Greenbrier. However, due to the increasing demand for automotive wagons and the current dip in intermodal transports and the corresponding restrained market mood, manufacturers could shift production capacity towards the production of automotive wagons. This will especially be sustainable if the manufacturers see long term order commitments, which they currently do.

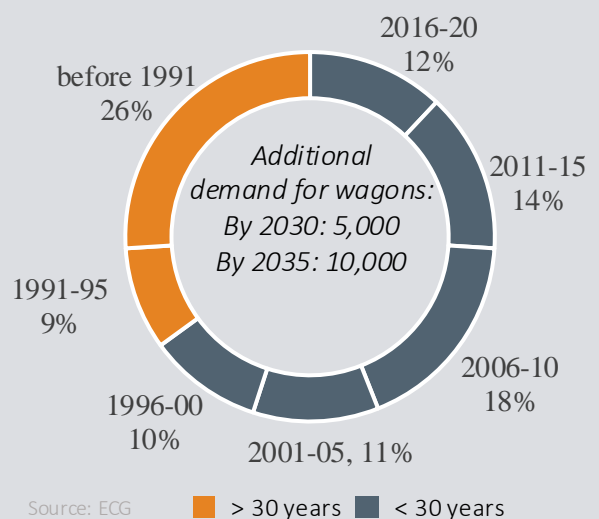
There is also additionally capacity coming from China – one major player is already running Chinese wagons and has ordered more reporting of sound quality. The Chinese manufacturers consider to establish wagon plants in Europe.

The market's reliance on rental wagons, especially for specialized needs like flatbed wagons, which are essential for transporting light commercial vehicles adds another layer of complexity.

Despite the investments, the market is still grappling with a mismatch between the available wagons and the specific needs of the current vehicle portfolio. Many of the existing wagons are outdated and do not meet the stringent requirements for modern vehicles, such as wider or heavier models. This gap highlights the importance of investing in flexible wagons that can accommodate a variety of vehicle types, including the increasingly popular SUVs.

Figure 8:

### Automotive wagons by age



The situation is further complicated by ongoing infrastructure challenges, such as construction work until 2030, which forces LSPs to operate with 30-40% more capacity than usual, for the same transport output. That is due to detours or delays which increases the wagon binding days on the given route.

In response to these challenges, OEMs and LSPs are increasingly holding strategic discussions with wagon suppliers to address wagon availability and align investments with the evolving needs of the automotive sector. The shared objective is to ensure that the shift to rail is not only feasible but also sustainable in the long term, as the industry continues to prioritize rail transport wherever economically viable. However, it is also clear: the order and production volume at present, is only suitable for modernising the fleet and not yet expanding it.

## PORTS & COMPOUNDS

### Ports remain one core bottleneck to efficient logistics

European vehicle ports remain critical hubs in the automotive logistics network, with Bremerhaven, Zeebrugge, and Koper continuing to dominate the landscape. In 2023, these ports faced growing pressure as vehicle imports, particularly from China, surged, turning many ports into congested storage areas. This ongoing strain highlights persistent structural challenges, such as limited capacity and outdated infrastructure, which struggle to accommodate the increasing volumes.

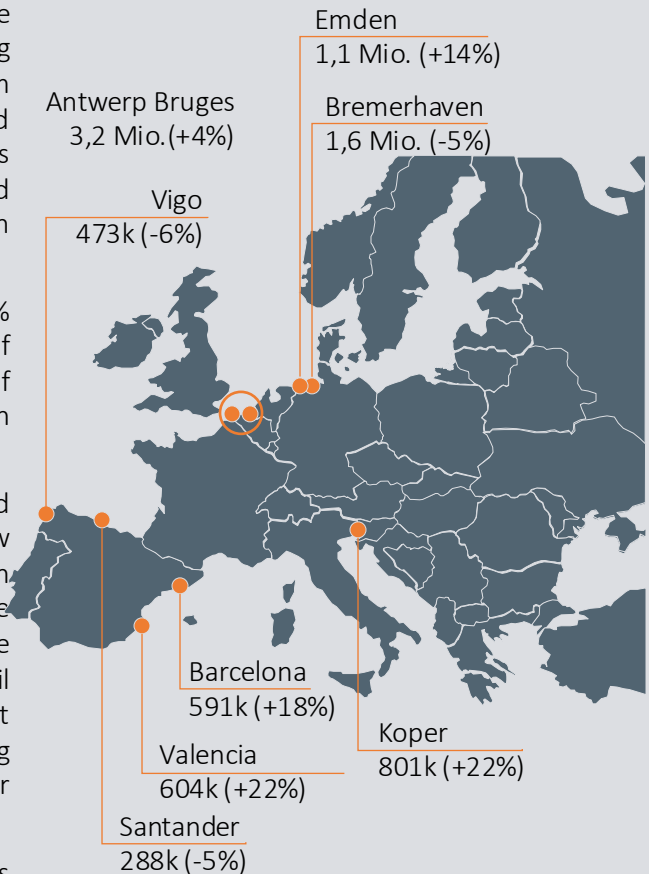
Besides, Antwerp and Zeebrugge reported a 9% decline in vehicle throughput during the first half of 2024 – mainly due to reduced callings because of conflicts in the red sea – causing ports to remain overcrowded.

Vehicles are often stuck in ports for extended periods, reducing the ports' ability to manage new shipments efficiently. This situation has been particularly problematic for rail transport, where port congestion directly impacts the ability to move vehicles onto rail networks. Even when rail transport options are available, clogged port facilities often prevent timely loading, contributing to significant delays and missed opportunities for more sustainable transport solutions.

In response to these challenges, LSPs and OEMs are increasingly developing alternative strategies, such as using backup ports and implementing advanced planning and booking systems to secure capacity. The investments in southern ports increase to develop reliable alternative routes (e.g., Ravenna). However, despite these efforts, the fundamental issue of port congestion remains a significant barrier to increasing the rail share in vehicle logistics. To truly enhance the role of rail in the logistics chain, the focus must shift towards improving inland transport solutions. As ports continue to serve as critical entry and exit points, the efficiency of the entire logistics chain hinges on the ability to move vehicles seamlessly from ports to their final destinations, necessitating better infrastructure and more strategic planning.

Figure 9:

### Major ports (yearly throughput 2022)



Source: Automotive Logistics

### The access to compound infrastructure is also critical

Compounds which are mainly controlled by LSPs are set to play an increasingly important role in FVL particularly as the industry explores the potential of megahubs. However, the concepts and availability of these large-scale hubs remain uncertain. A key consideration for future compounds is visibility and accessibility, with a strong emphasis on ensuring rail connections and proximity to highways. These features are critical for efficient vehicle distribution and may even position compounds as future alternatives to traditional car dealerships, serving as central pickup locations. To support these developments, compounds will require long-term contracts that justify investments in infrastructure, such as parking facilities and rail connections.

LOGISTICS ECOSYSTEM

# Market players & their strategic moves in the rail FVL ecosystem

## Macro Movements

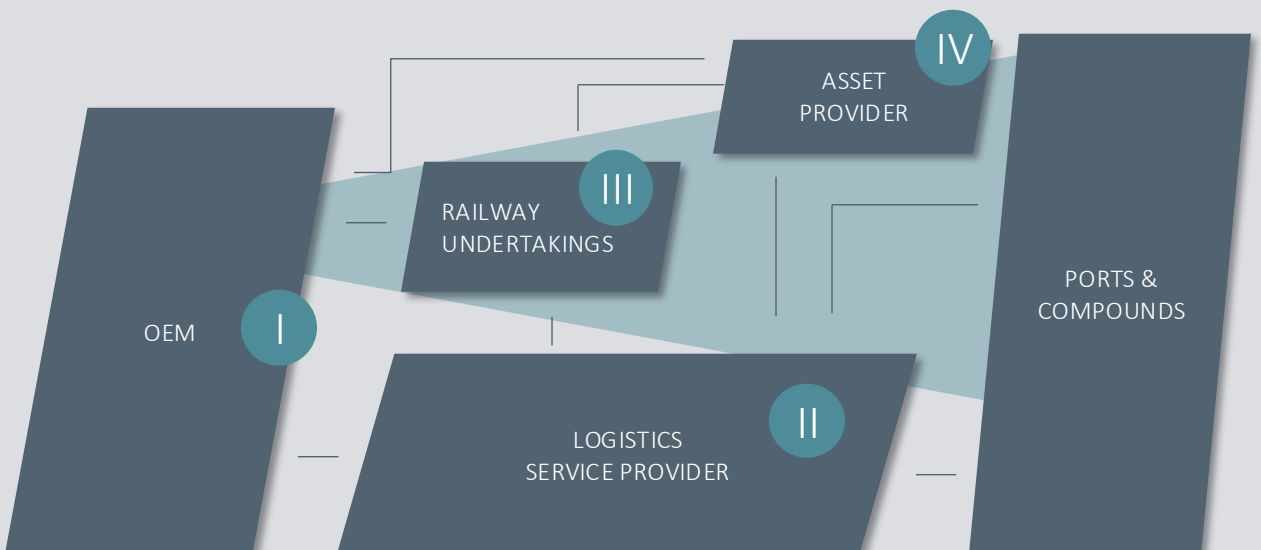
Besides the trends and barriers shown before, we observe four macro reactions of the market to these market dynamics. These movements are visualized below and are described in detail in the following chapters. We see that:

- I. **OEMs** increase their control and steering of outbound logistics chains especially focusing on an increase of their level of control over rail operations, in their ambition to shift transport volume towards rail. They need to focus on highly resilient supply chains and intensify a more rigid steering on costs and carbon emission at the same time.
- II. **LSPs** continue to be the anchoring role in this market. Their role as orchestrators is becoming increasingly more important to optimize rail transports and to enable an overall shift to rail. To this end, they are increasingly integrating and connecting with their customers and partners. Rail transport is becoming more important for them.
- III. Even if automotive on rail comes with specific and more advanced requirements, a significant number of **RUs** can perform automotive transports. There is an established group of RUs with different size and network coverage that directly engage with LSPs and OEMs to jointly create relevant rail products. Some of the RUs consider to do the next step towards logistics services and rent own wagons.
- IV. **Asset providers** gain traction in this market. Their relative and absolute automotive fleet size is growing, and their customer base are LSPs, RUs and OEMs.

All in all, there is a lot of dynamics and disruptions, so the market is searching for a new equilibrium including new rules of the game.

Figure 10:

### Movements within the rail ecosystem



## LOGISTICS ECOSYSTEM

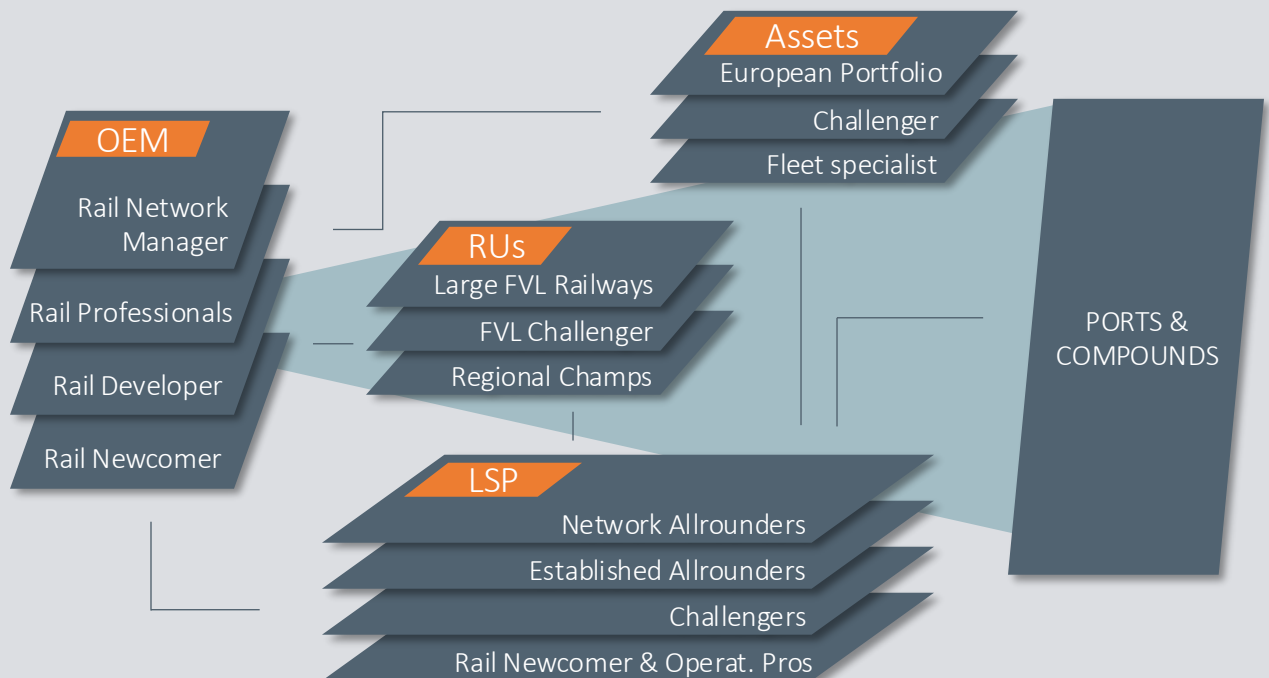
### Market segmentation

We have introduced the simplified ecosystem to explain market movements in the previous chapter.

To enable a differentiated and more detailed view of the strategies, we venture a cross-section and look at the individual segments in the continents. We quickly realise that the starting positions and business models of the players are different. Future strategies and partnerships depend on the current positioning in the market and the own business model, as well as on the individual goals. Our analysis shows that there are clear strategic patterns.

Thus, we will look at the different player segments in the following and sketch different strategies for business models, products, assets, partnerships and IT.

Figure 11:  
Cross-section of the rail ecosystem



# OEMs

## OEMs' overarching strategic moves

Despite of the current rail share level, OEMs in general strive to enhance the efficiency and sustainability of their outbound transport chains, e.g., by (further) expanding their rail share. Their primary objectives are to boost transparency, meet growing transport demands, and maintain competitive pricing and service levels.

To achieve this, OEMs are considering to establish and improve the relevant general conditions, e.g., by gaining greater control over logistics systems or by steering and monitoring the transport process without directly executing it.

With the rising demand for rail transport, OEMs are seeking suppliers capable of optimizing their rail logistics. This includes balancing transport flows, combining routes, establishing hubs, and ensuring the availability of flexible wagons. To support these efforts, OEMs are also exploring new concepts, such as hub structures and innovative business models, particularly along key transport corridors. To facilitate the next phase of development, they require partners with robust IT capabilities to provide comprehensive data and analytics, enabling the effective management of new business and operating models.

Securing capacity is a critical priority, with OEMs favouring long-term contracts, potentially involving leasing arrangements, or by investing in rail wagons themselves.

And Yes, depending on the rail maturity level, we expect to see some examples of OEM increasing their level of control by using own assets in parts of the networks to gain knowledge for purchasing processes and to achieve higher productivity.

## OEM typologies

OEMs can be classified based on their current rail share and their corresponding level of control over rail transports. Depending on their rail share, OEMs behave differently and choose different strategies when it comes to rail operations. That said, we cluster OEMs in four segments as shown in Figure 12, below: Rail Newcomer, Rail Developer, Rail Professionals and Rail Network Manager.

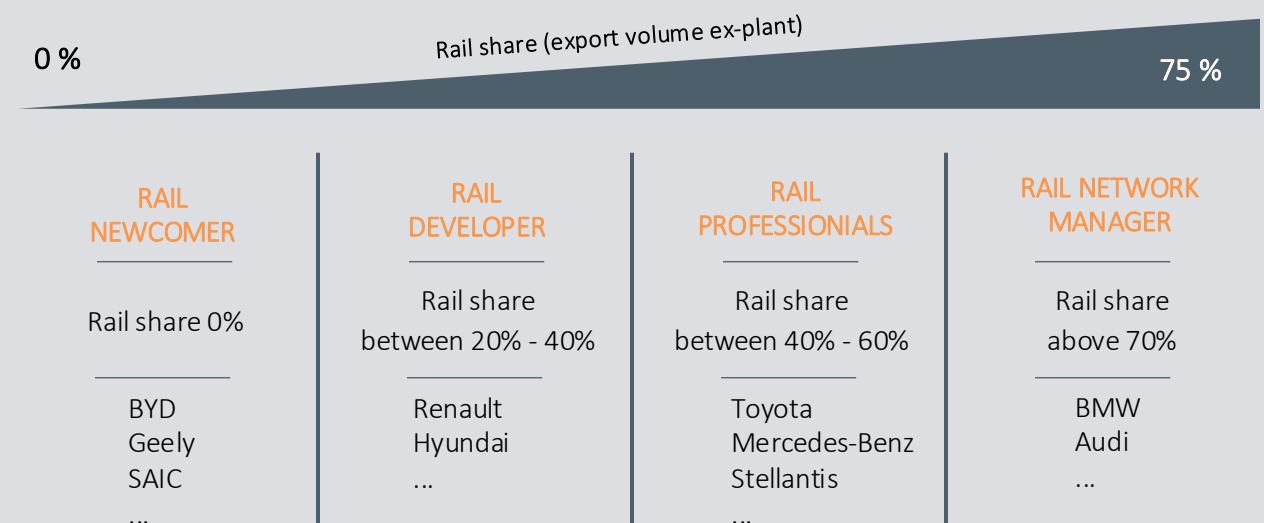
### Rail Network Manager

Rail Network Manager are OEMs that have high export volumes in addition to a well-established rail infrastructure at the plants. This means that a large part of the output can be transported to ports by rail. These OEMs have rail shares of up to 70% and they manage and control their transports centrally, mostly by a centralised rail planning, purchasing and steering unit being responsible for all transports and a network view.

Rail Network Managers usually have advanced requirements for optimizing future operations. They need comprehensive European coverage and access to sufficient assets. Thereby, they evaluate options for rail transport on continental routes based on the availability of capacity within their plant infrastructure.

Figure 12:

## OEM clusters based on current rail share



## OEMs

For their partnerships, they seek cooperation with large logistics network orchestrators and also collaborate with regional & corridor specialists to ensure optimized network performance.

These players are also likely to make significant investments in IT with focus on improving operational control and transparency. To secure critical capacity, some OEMs will consider taking control of essential assets, such as selective investment in wagons or engage in investment partnerships to increase their control over rail assets and therefore secure their operations. Additionally, these players are deeply involved in optimizing their entire outbound supply chain, including the co-creation of transport concepts and backup plans. They maintain strong relationships with their suppliers.

### *Rail Professionals*

Not yet on this level but with notable rail volumes is the second cluster which we call Rail Professionals. These OEMs have a rail share of 40 – 60%. Here we find European OEMs with rail infrastructure at the plants which is utilized for export volumes. Compared to the previous cluster, these OEMs have a larger share of European volume which is partly distributed by truck.

Rail Professionals are also actively reevaluating their rail strategy. We see that these players start discussions directly with railway operators to find solutions on relevant corridors, are opening for new partnerships and look for ways to secure assets.

### *Rail Developer*

Rail developers are those OEMs that have a rail share between 20% and 40%. These OEMs often have limited rail capacity at their plants. Some of them have strong ties to truck organisations. These OEMs have partly short domestic transport distances that are unattractive for rail.

Rail Developers face the greatest need for advancement, with the goal of significantly increasing their share of rail transport. A key starting point for these players is to gain greater control over wagon operations, e.g., through direct investment in wagons and leasing partnerships.

In addition to enhancing wagon operations, these players are likely to invest in personnel, develop new operational setups, and explore innovative network solutions. Rail Developers will need to reevaluate their current processes and structures for rail procurement and management. A critical aspect of this will be collaborating with LSPs and RUs that are willing to co-develop new rail routes and offer rail-as-a-service-solutions. To secure such partnerships, these OEMs may need to commit to longer-term contracts with their suppliers, ensuring a stable foundation for the development of new rail solutions. Access and control over compounds is another major topic for them, as they lack the infrastructure to expand rail operations as given infrastructure is occupied by rail heavy OEMs.

### *Rail Newcomer*

Rail newcomers are OEMs with volumes that are too small for efficient rail transports. These OEMs are exemplary the new Chinese importers, which additionally lack a European distribution set up.

Driven by the need to reduce carbon emissions, enhance transparency, and efficiently move high volumes of vehicles OEMs seek to increase their rail share. Our hypothesis suggests that the specific rail strategies of these OEMs are closely tied to their unique positioning in the market. Each OEM must also determine the optimal rail share that best suits their operations. Rail is most effective when used as the backbone of logistics, complemented by the flexibility of trucks to handle peak loads and smaller volumes.

Rail Newcomers are watching the market and will only switch to rail if the market finds attractive open solutions. The relevance of rail for these players depends heavily on the distribution strategy. Unlike European OEMs, Chinese EV manufacturers do not have significant volumes for rail transport. As their volumes are too low for own trains, they require cooperations to move to rail. For this, visibility of open transport operator solutions will be key.



## OEMs

## OEM best practices

### *Optimising tender lead times and tendering processes*

OEMs consider to design their tender processes in such a way that both LSPs and RUs have sufficient time to thoroughly analyse the requested routes and their economic feasibility. Tender periods that are too short often result in both, LSPs and RUs pricing high risk premiums, which unnecessarily increases costs and reduces efficiency. Contract periods will enlarge up to 10 years if OEMs intend to safeguard critical capacities.

### *Centralised control and procurement for greater efficiency*

Interviews have shown that OEMs that have established a centralised SCM/transport management with an integrated rail part (incl. rail management and procurement) tend to have higher rail shares in their logistics. Such centralisation enables better coordination and optimisation of rail transport with a longer-term strategic view and elimination of interfaces and slack, which is particularly important in times of bottlenecks and high capacity utilisation. This centralised control should be continuously supported by IT solutions that provide real-time data and thus enable proactive control of transport operations.

### *Increase flexibility in planning and control*

A key factor in the success of rail transport is the ability to react flexibly to changes in demand or transport conditions. OEMs and LSPs should introduce systems that enable them to switch quickly between different modes of transport, especially in the event of unexpected events such as strikes or infrastructure problems. This requires investment in IT solutions that increase transparency and controllability.

### *Rail operations can be flexible within boundaries*

While rail is a reliable and efficient mode of transport for mass shipments, it lacks the flexibility that road transport offers. This inflexibility can be particularly challenging during disruptions such as strikes or construction work, where rail services can be severely impacted. However, OEMs are increasingly committed to overcoming these hurdles. By maintaining flexibility and responsiveness in their supply chains. OEMs are increasingly employing predictive analytics to foresee potential disruptions and proactively adjust their logistics plans. Robust rail strategies foresee potential disruptions such as infrastructure bottlenecks caused by construction works or port congestions and include alternative options with the rail network such as detours or shifts to a different port. Robust strategies also includes improving the ability to switch to alternative transport modes when necessary, such as using trucks for partial volumes during rail disruptions.

### *Infrastructure constraints can be covered and solved*

Existing production facilities with rail access are already operating at or near technical capacity limitation, and the surrounding infrastructure is often stretched to its limits. Despite these challenges, there is a strong motivation across the industry to increase the rail share in logistics, with OEMs continuously exploring ways to enhance and expand their rail infrastructure. Best practices include active discussions with local infrastructure experts and political stakeholders about enhancing existing rail infrastructure. A large German OEM was able to increase rail capacities at one of its plants by re-activating idle rail infrastructure. As new production facilities emerge in Eastern Europe, a key focus is on whether these sites have adequate rail infrastructure, and if so, whether it can handle the required capacities. The quality and capacity of rail connections at these new sites are critical, as they will determine the effectiveness of rail as a primary transport solution.

## LSPs

## LSPs' overarching strategic moves

LSPs continue to be the orchestrators of finished vehicle transports. Their role of optimizing transport flows is key to the markets overall efficiency. The increasing demand for rail transport solutions challenges their existing business model and requires adaption. There are some overarching observations and strategies we would like to summarize below.

The most promising service providers will be those with intelligent network solutions and access as well as steering competencies of efficient operational schemes. Access to compounds and the integration of hubs in networks will be a lever towards overall efficiency. We are likely to see LSPs to increase their value chain coverage to be able to optimize E2E-solutions including rail, compound, truck and value-added services.

We will also see an overall shift in asset strategies. LSPs face an increasing demand for rail operations. To this extent, asset strategies are in a state of exploration, with off-balance models and rental agreements gaining traction. These models allow LSPs to access rail assets without the financial burden of ownership, fostering new market dynamics. The shift towards partnerships with private wagon lessors, often involving long-term contracts with purchase options, allows LSPs to respond to tenders they previously couldn't, thereby increasing market optimization. However, this trend also diminishes the traditional USP of LSPs owning their own assets. Meanwhile, having access to enough relevant railcars continues to be a major competitive advantage.

We believe that one of the most relevant and ongoing challenges lie in finding paired transport flows – maximizing the efficiency of inbound and outbound routes. A solid data foundation becomes a significant competitive advantage, enabling LSPs to foresee model shifts and address potential imbalances, particularly with rising production volumes in Eastern Europe and the unbalanced flow towards ports. The ability to identify and secure backloads remains crucial, particularly as LSPs navigate different contract lengths and tender times of OEMs. Partnerships with a wider RU base could therefore also be beneficial.

## LSP typologies

The landscape of LSPs can also be segmented. In this study we are focussing on the four groups that will have the greatest influence on the industry development in the coming years. To this end, we have segmented the players based on two key factors: wagon fleet capability, which is a combination of fleet size and share of flexible assets. The horizontal axis categorises companies according to their fleet characteristics. The vertical axis categorises companies by geographical market coverage and value chain coverage in terms of rail, truck, compound and automotive product-fit. This matrix visually categorises the companies into four different clusters, each of which reflects a combination of these attributes. The clusters are designed to emphasise the strategic positioning of the companies in terms of their operational capabilities and market focus. In the following, we briefly describe the four different clusters.

## Network Allrounders

Established network allrounders equipped with significant modern fleets are well-positioned to meet the demands of the market. A crucial aspect of their strategy needs to be the continuous development and adaptation of their network products, ensuring that they remain competitive and aligned with market needs. Which means creating value for their clients through optimized network design to offer solutions with maximum utilization, frequency and balanced flows as well as connecting to emerging regional markets.

In addition to refining their network offerings, they are also adapting their asset strategy to keep their fleet up to date, combining own assets with assets from selected core partners which gives them ability to adapt to the dynamic requirements of the logistics sector.

Network allrounders must increase their rail share on their existing corridors through better concepts and will build on strong capabilities for rail operations. In parallel, they need more control and the ability to manage their products by exploring options of tracking on critical corridors and routes, enhancing transparency & control over transport operations.

**LSPs**

It will be more and more necessary to enhance their data capabilities to predict flows more accurately and optimize for balanced logistics networks, positioning themselves as key optimizers within the industry. To increase speed at affordable investment some will include neutral market solutions in their systems.

Furthermore, these allrounders are committed to forming strategic partnerships with their customers, fostering long-term relationships that allow for the co-creation of tailored solutions. By adapting their network design to meet specific customer demands, they enhance their value proposition, offering end-to-end products that serve the needs of OEMs and strengthen their position in the market.

*Established Allrounders*

Established Allrounders build on wide transport and compound networks with coverage to major markets and significant wagon fleets.

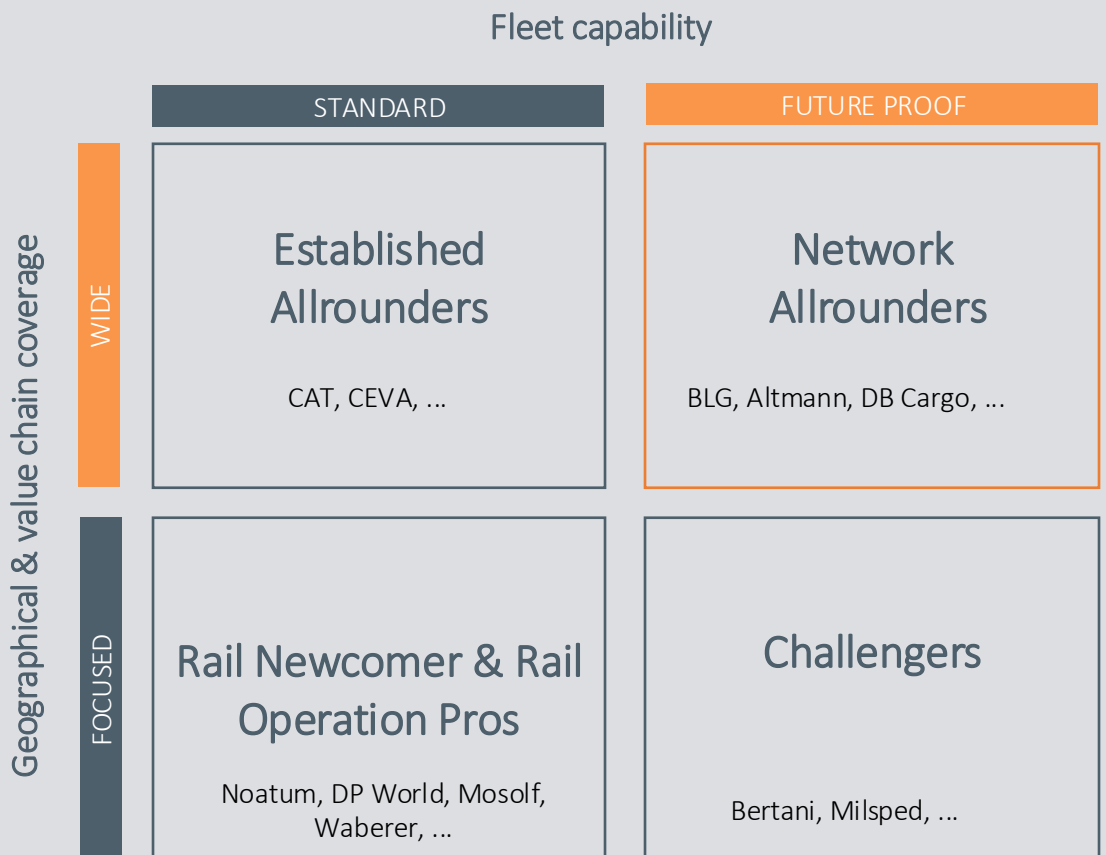
As these fleets are old and the railcars do not provide flexible loading platforms, they will have to focus on renewing their fleets to keep their current service levels, especially as the equipment requirements rise. These players are also considering new partnerships with asset lessors and investment partners. The long term known FVL-players became part of new bigger groups as a result of M&A activities and new strategies by CMA and CAT and the market requests more clarity about their strategies and commitment to FVL-offerings. Besides this, these players need to advance their offerings and products to service future customer needs.

*Expansive Challengers*

The Expansive Challengers develop their rail solutions somehow unperceived from the market and are hungry for new clients and businesses to expand their models around their growth areas.

Figure 13:

Logistics Service Provider clusters by rail value chain and railcar fleet capability



## LSPs

They convince with innovative and brave business models and traffic design for the benefit of new contracts like corridor responsibility and volume commitment. These players continue to invest in their capabilities like modern flexible wagons and traffic design concepts and build on strong relations to suppliers like regional RUs with automotive footprint. They could gain an edge on the IT and interface side as they are not impeded by legacy systems respectively build on systems for logistics or truck transports. Furthermore, these players connect to compound operators to smoothen their processes to optimise their asset utilization by decreasing waiting & loading times.

### *Rail Operation Professionals and Rail Newcomer*

Within the continents we see this cluster as a development area for the logistics players to increase and expand their capability for rail operation. All LSPs use rail but only some have strong in-depth expertise and competencies in rail operations. To develop the next generation of FVL solutions and to harvest the benefits of the efficiency potential it will be more and more important to develop the capabilities for traffic design and execution to increase the level of control.

On the other side some traction providers gain access to wagons and combined with steering logic and IT systems they are developing their business model by seeking direct access to OEMs. These players engage in the logistics chain by combining rail operations with logistics services and enter partly in competition with established LSPs by providing capacity and end-to-end-steering over rail transports. We already see that OEMs and RUs co-develop innovative concepts on selected routes.

And some LSPs with significant finished vehicle business by trucks and access to compounds enter the scene and prepare to expand their service offering including rail. These players also seek access to assets and rail capabilities.

## Collaboration best practices

### *More cooperation & new constellations with OEMs and RUs*

To sustainably increase the rail share, LSPs and RUs should work more closely together, especially in the joint development of logistics concepts. This could include the joint use of wagons and the optimisation of transport corridors and we see the first examples of sharing operational staff by the use of neutral providers and tools. Strategic partnerships between these players, supported by long-term contracts, can optimise utilisation and encourage investment in new capacity and production concepts.

### *Think supply chains and open logistics systems*

OEMs and LSPs are adopting innovative best practices sometimes together. Corridors are more and more seen as transport systems that are interlinked and must be optimized comprehensively rather than on individual level. Stand-by trains, quick deployment strategies, and proactive infrastructure analyses are just some of the methods being employed to ensure rail transports remain a robust component of the logistics chain. High transparency in communications with subcontractors, including regular motivational visits and discussions about volume forecasts, is also becoming standard practice. We see the developments of regular rail services between compounds of economic centres with high volumes which are created as open logistics systems and could be combined with intermodal flows to assure maximum utilization and frequency.

## RAILWAY UNDERTAKINGS (RU)

### RUs' overarching strategic moves

RUs are increasingly interested in entering the automotive logistics market, as they experience volatility and the current downturn of other growth segments (despite the challenges of the automotive industry, such as seasonal fluctuations in demand). Despite this, some RUs are attempting to elevate their role by directly engaging with OEMs and LSPs. Besides, RUs are more often exploring options to lease or invest in their own wagon fleets and participate in tenders, aiming to secure a more significant share of the automotive logistics business.

Customer service and service design also becomes increasingly important in railway operations and best practises are visible. The recipe to play a role in the futures FVL ecosystems seems innovation readiness much more than size.

### RU typologies

There is a portfolio of RUs in the market who adapted the requirements of automotive outbound logistics and will expand their rolling stock, staff and geographical coverage to secure rail operations for this segment. Overall, we differentiate between three RU clusters, which we will describe briefly in the following section.

### Large FVL Railways

Mainly build out of the former big state-owned railways there is a number of railways with European coverage, who have long term experience with automotive transports from serving the national OEMs and have significant rolling stock and personal.

Due to the structural reforms some of them are constituted out of mid-sized automotive railways forming European networks.

### FVL Challenger

As a second group the automotive market can build on railways which are capable to produce transports on a European level and big logistics companies developing own traction service entities along their strategic corridors.

### Regional Champions

Regionals Champions are RUs that excel in managing specific routes by utilizing locomotives across various industries based on automotive as an anker. These RUs provide enhanced service quality and also favourable contract terms, benefiting all parties involved.

### RU best practices

*There is good customer service in rail operations*

RUs are becoming the backbone in providing the necessary flexibility and customer orientation. In this field we see the readiness of some large state-owned rail companies and also mid-sized private railway undertakings. These innovative operators offer more tailored solutions and more flexibility which are critical for integrating rail into a seamless logistics chain. Smaller private operators show a higher willingness to discuss and find new solutions for OEMs rather than finger pointing towards infrastructure problems and their inability to adapt.

Figure 14:

### Railway Undertaking clusters with finished vehicle (automotive) footprint

#### LARGE FVL RAILWAYS

DB Cargo  
TX Logistik/HSL, Mercitalia  
SNCF, Captrain,  
RCA, ...

#### FVL CHALLENGER

EP, Lineas,  
SBB Cargo,  
PKP Cargo,  
...

#### REGIONAL CHAMPS

České dráhy,  
ZSSK Cargo,  
Budamar, etc.

## ASSET PROVIDER

### Asset Providers’ overarching strategic moves

After decades of passive and order driven offerings and investment there is a lot of dynamic in the asset provider landscape. All players are increasing their activity in the automotive industry, evolving their business model to the next level. They are transitioning from lower to higher automotive engagement and connection into the automotive supply chains. Thereby, significant investments in flexible wagons are made and a width of relevant services on a European scale are being established. There is also the development of former niche segments like flatwagons.

Taking this into account, the role of asset providers are increasingly changing as is their significance for the market. One of the reasons for this is that RUs and LSPs are increasingly turning to off-balance models models to increase their financial room for manoeuvre. The sales & lease back or for fleets give asset providers a second important task and role in the FVL ecosystem in addition to purely providing new wagons.

Beyond that and regardless of the type, asset providers are concerned with three key questions in their strategy development: How large should my fleet be equipped with which types of wagons? Who are my strategic partners? What additional services do I need to offer or rather what additional services can I use to differentiate myself?

The answers to these questions naturally depend heavily on the current positioning and strategic goals of the asset provider.

While the segment leader focusses on understanding and connecting to the supply chains of their customers, the challengers aim to building up their fleet with their customers to achieve a significant et size and to differentiate themselves via services.

What all players have in common is the need to provide relevant additional services to their customers. This includes for example mobile maintenance services and wagonholder services. Besides, they intend to equip their wagons with track and trace technology. They create new options, expanding asset bases and increasing access to wagons for all players in the ecosystem.

### Asset Provider typologies

Several asset lessors have chosen to invest in automotive railcars as the market seems ready to include this business model like in other segments of the rail market. The providers have different sizes and strategies as shown in Figure 15 below. The players strategies differ and also their proposed fleet size and investment volume. We differentiate between leaders with a pan European portfolio, challengers and fleet specialists.

Figure 15:

### Asset Provider Segmentation



## ASSET PROVIDER

### Pan European Portfolio

The foreseen segment leader seems to be prepared to expand its market position and to leverage its financial capabilities and instruments to building up a sizable fleet of automotive wagons, both from second hand wagons as well as new wagons. The clear vision is to establish a pan European portfolio including all necessary services, like maintenance and ECM on a European scale.

### Challenger

As challengers we see ambitious players. One service champion, who is building up its portfolio of automotive wagons. This player is known for operational service excellence and competitive pricing for its fleets in other segments. Another main challenger is a provider who is an established automotive wagon lessor with a already sizeable fleet of modern wagons combining with a strategy to embed wagons in logistics products if clients are interested. These challengers are actively seeking new clients and forcing new long-term partnerships.

### Fleet Specialists

One of the fleet specialist is a family-owned company with a significant automotive fleet and established partnerships. Larger investments are not expected unless the player receives and partners for long term contracts of 10 years or more. The second one is a new player with expertise in automotive and backed by a new shareholder. This player is expected to enter the market in 2026 with plans to expand the fleet in the mid-term.

### Notes on Wagon Manufacturers

The wagon market in Europe is dominated by the US company Greenbrier and Tatravagonka from Slovakia, the only one from the world's top 10 railcar manufacturers from Europe. Both manufacturers built up their production capacities and expect a yearly output of 1.000-1.500 wagons. Given the increasing demand for flexible automotive wagons, both manufacturers have full order books. However, the demand cannot be met in full. This is why also imports from China (CRRC as the biggest railcar manufacturer) are an increasingly viable option for players, despite the uncertainties regarding quality, delivery and services. However, CRRC's growing ambitions in Europe are clear, especially as the company is planning to open a plant in Hungary in the near future together with Hungarian group Acemil.

## ACTION FIELDS

# Overarching action fields for the market players in the rail FVL ecosystem

## Strategic outlook

As rail enthusiasts, we are delighted by the increasing demand for rail transport driven by OEMs and their efficiency and sustainability goals. As realists, we see the challenges. In our role as management consultants, we develop approaches and solutions for individual challenges to achieve higher rail share and to harvest the benefits from good rail models.

On an aggregated level, we acknowledge that the market dynamics described in this study change the ecosystem and increase capacities and efficiencies. Key drivers are new business models, a broader asset base and investments in steering and control of rail operations.

As a result, we expect to see the same level of improvements as some players identified in their business cases. The volume of rail transports with finished vehicles could increase up to 50% until 2030. Assuming an increase in the efficiency of finished vehicle transports of 20%, cost could decrease by 10% through the implementation of new business models and optimized steering. In addition, significant CO<sub>2</sub> savings of 20%-30% could also be expected through shift from truck to rail.

To achieve these effects, in addition to the individual strategies, there are some complementary overarching strategic action fields which we summarise in the following.

### *Build-up strategic partnerships*

Instead of short-term and purely purchasing driven partnerships, the trend is increasingly moving towards a new, more long-term cooperation model with shared systems or contracts for up to ten years. Thereby, identifying (new) stakeholders for collaboration which align with the strategic goals to ensure successful implementation is a key objective. Therefore, achieving transparency regarding all stakeholders is crucial, but also requires a different mindset and closer and more trusted cooperation at various levels.

### *Establish the right KPIs*

Trusting cooperation between stakeholders is necessary in order to cope with the increasing complexity of finished vehicle logistics. This applies to assessing and improving the ability to jointly manage and oversee transports and monitor rail performance relative to truck with the right key performance indicators (KPI) for cost, CO<sub>2</sub> emissions, intelligent asset utilization, turnaround times, demurrage. Therefore, the different stakeholders have to invest in upgrading IT-landscape, personnel, and new & aligned processes.

### *Define the asset strategy*

Since the availability of wagons is limited, securing critical assets is a core objective. Strategic considerations include long term partnerships and deciding whether to invest in rail assets, partner with lessors, or improve control over assets.

Thereby, timely action is imperative due to long delivery times, full order books and a simultaneous increase in demand.

### *Be more flexible and prepare alternative scenarios*

Due to the numerous infrastructure bottlenecks (ports, compounds, rail tracks), some of which are attributable to massive investments in their future viability, flexibility and rapid adaptability will be required in the coming years up to 2030. Companies in the FVL ecosystem need to think specifically about mitigation plans and look for creative and new solutions (e.g., regarding the traffic design) to keep supply chains running and generate efficiencies.



## ACTION FIELDS

### Renew IT as driver for efficiency

IT solutions in automotive logistics have great potential, particularly in automating transport management via more powerful and integrated systems (TMS). Currently, much coordination, such as rerouting shipments or managing unexpected port arrivals, still depends on manual processes. While effective, there's a clear need to streamline operations with advanced IT systems.

Forecasting is improving with IT, where online tools now provide OEMs with monthly forecasts for all logistics service providers. This has proven critical in aligning all parties and enabling informed, timely decisions.

However, gaps remain in real-time visibility, especially for rail shipments. Track-and-trace systems are slowly being implemented, but reliable ETA predictions are still challenging.

Many platforms lack a comprehensive view of train locations and arrival times, complicating logistics planning, particularly for international networks with many stakeholders.

Opportunities also exist in better harmonizing wagon maintenance schedules with transport networks. Improved integration could reduce downtime and optimize asset use, with IT solutions playing a key role in coordination across providers.

As IT in logistics evolves, the potential for greater automation and digital integration is vast. The shift towards sophisticated systems will reduce reliance on manual intervention, with future features likely including real-time ETA predictions and enhanced track-and-trace capabilities, essential for managing complex logistics networks.

There is movement from two sides. Leading players will open their systems for third parties and harmonize their APIs or set industry standards. At the same time, we will see neutral as-a-Service-tools gaining traction in the market.

There are various digital business opportunities. One big opportunity could lie within a platform that identifies empty wagon journeys, locos and infrastructure availability across OEMs and Rail Operators, make them transparent and visible to the market and implements offers to combine them with load runs from other customers could increase capacity utilisation.

The general need to improve the data base and quality to utilize the potential of increasing connection of the systems for decision support systems like forecasting, capacity utilization or the establishment of new services based on data has to be covered step by step. Innovative players could move quicker and gain the benefits earlier

## STUDY SUMMARY

**Study objective.** Mapping the market situation of finished vehicle logistics and identifying market dynamics and trends as input for strategies and business model developments.

**Method.** We combined our own market knowledge and desk research with perspectives of leading players in the finished vehicle logistics segment in order to create a comprehensive picture.

**Results.** The study shows that finished vehicle distribution faces a switching point due to expected capacity shortages and other structural changes, which will disrupt the market heavily. As a reaction, players adopt new strategies that will lead to growth and opportunities, especially in the rail sector. We identified fields of action to be considered.

### Study background & objective

Automotive outbound logistic is disrupted like never before. Car producers have increasingly volatile production outputs and car sales due to new crisis and changes in demand pattern. On the logistics side we observe a need to secure capacities across all transport modes as an outcome of the past crises and a shortfall of infrastructure. The market and its players react with role changes and new business models.



*The market disruption we see today is stronger than anything I've seen in over 20 years in this industry.*



OEM

The aim of this study is to aggregate expert views on the trends, challenges and solutions that effect every player in the ecosystem. For this we interviewed executives and conducted extensive research to compile the current state of finished vehicle logistics and developed a glimpse into the changes and disruptions to come.

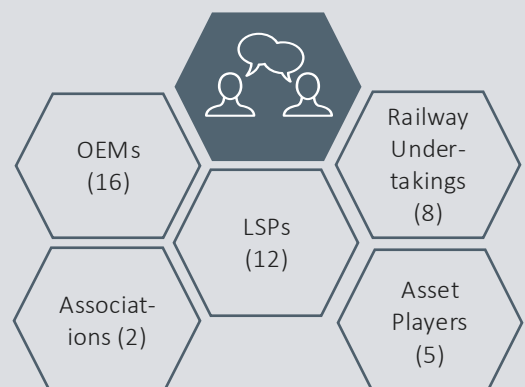
Compared to our first study in 2023, we included additional players and analysed the implications of short-term price and capacity volatility to the long-term trends.

The study results provide action field patterns to navigate through these uncertain times.

### Study structure & participants

The study is structured in four parts, starting with the developments in the automotive market and the need for a strategic shift towards rail. In the second part we take a closer look at the players within the ecosystems and their strategic moves and strategies. We conclude with the description of overarching action fields for the market players in the rail FVL ecosystem. Throughout the study we combine insights from our extensive industry-wide expert interviews with desk research to provide you with the most comprehensive market picture possible. The study concludes with action fields and an outlook on trends as an orientation for future priorities.

#### Study participants



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## THANK YOU!

We would like to take this opportunity to thank all our interviewees. We enjoyed the conversations with you very much. Thank you for your time and intriguing insights. We are looking forward to your feedback on the study at any time.

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## WE ARE LOOKING FORWARD TO YOUR FEEDBACK!

We condensed all analyzed information into a few pages – yet there is much more to talk about. As challenges in the market tend to be individual, we are curious about your perspectives and thoughts. Please feel free to contact us at any time.

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