Driving **efficiency and flexibility** in automotive logistics

Maersk's **Cars in Containers** paves the way for smarter logistics.

MAERSK

ALL THE WAY

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Executive summary

The automotive industry is suffering from turbulent supply and demand dynamics due to recent tariff uncertainties and geopolitical situations.

In 2024, the global automotive market was valued at approximately USD 2.2 trillion. Projections for 2025 suggest an increase in market size, with estimates reaching up to USD 2.8 trillion by 2033, reflecting a compound annual growth rate (CAGR) of about 2.79% from 2025 to 2033.[1]

In this report, we explore the emerging trends and challenges facing the global automotive industry and how Cars in Containers can complement your automotive supply chain to ensure original equipment manufacturers (OEMs) stay ahead in this fast-paced global market.

This report also includes insights from Maersk's successful partnerships with automotive industry leaders, exploring how automotive manufacturers are adapting to market changes. We interview experts to provide a fresh perspective on how adding Cars in Containers to their automotive supply chain has helped address current industry pain points.

Key takeaways

- *Automotive OEMs are increasingly diversifying their logistics for shipping finished vehicles, opting for a hybrid model combining traditional RoRo shipping with Cars in Containers for increased flexibility and agility.*
- *For automotive OEMs working with tight schedules and small volumes, the Cars in Containers model is not only faster and more resilient when it comes to potential logistics disruptions but is also more predictable in pricing and less capital-intensive because there is no requirement for large volume consignments. It allows automotive manufacturers to take full advantage of the streamlined multimodal logistics provided by end-to-end logistics providers.*

Exploring the **current landscape** of Finished Vehicle Logistics

Moving wheels around the world

In today's world of interconnected global supply chains, automotive logistics plays a crucial role in international trade. Foreign-built cars compete with domestic brands in the automotive markets of every country around the world, even in major automotive manufacturing hubs like China and countries home to prestigious automotive brands like Germany. This globalisation has been made possible by the increasingly complex web of automotive logistics, involving a combination of ocean freight, rail freight and truck freight across national and natural borders.

With the global movement of automobiles only growing, OEMs are looking for ways to optimise their supply chains to ensure minimum delays and disruptions.

Finished vehicle logistics market[2]

CAGR = 3.79%

Study period	**2025-2030**
Base year for estimation	**2025**
CAGR	**3.79%**
Fastest growing market	**Asia Pacific**
Largest market	**North America**
Market concentration	**High**

Cars in Containers as a complement, not a replacement, of RoRo shipping

As a complement to RoRo shipping, Cars in Containers offers manufacturers an effective alternative ocean shipping option to RoRo in many FVL cases. While usually reserved for shipping semi-knocked-down (SKD) and completely-knocked-down (CKD) vehicles, Cars in Containers for Completely-built-up (CBU) Vehicles has proven to offer multiple advantages, including streamlined multimodal transport, higher shipping route flexibility, lower upfront capital investment, and faster shipment times.

Today, Cars in Containers is no longer seen as a contingency plan by OEMs. Rather, it now plays a crucial role in the hybrid model of automotive logistics that increasing numbers of major global OEMs are relying on in the current automotive landscape.

Emerging **trends** in Full Vehicle Logistics

The road to EV dominance

In 2024, global electric vehicle (EV) sales reached approximately 17 million units, accounting for approximately 20% of total global vehicle sales.

It is expected that by 2035, the US, EU and China, the largest automotive markets in the world, will be fully electric. With market demands rapidly transitioning from internal combustion engine (ICE) vehicles to new EV technology, the entire automotive vertical has quickly begun to face a new set of challenges.

Shipping CBU EV units has become increasingly complicated. With CBU EVs designated as dangerous goods and negative press surrounding possible EV fires on board RoRo vehicles, EV regulations have gotten stricter and more inconsistent across jurisdictions.

2024 EV sales **17. 1 million units**[3]

Expecting the US, EU and China to be **fully electric by 2035**[4]

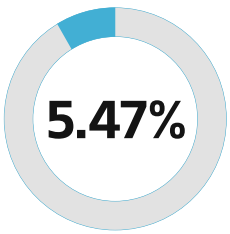
EV regulations have become stricter and more inconsistent across jurisdictions

Increasing globalisation ahead

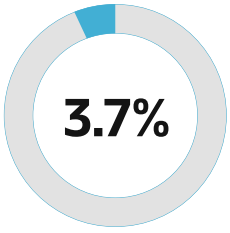
Global automotive supply chains have seen a shift in recent years. Even as automotive OEMs reorganise their supply chain and manufacturing away from Chinese production, China remains the market leader in vehicle production, growing at 4.5% YoY in 2024. India is the fastest emerging automotive market, experiencing massive double-digit year-on-year growth over the last two years.

Automotive market demand is also becoming increasingly globalised. Aside from China, demand for vehicles is also soaring in countries such as India, Indonesia, Thailand and Turkey, emerging economies where vehicle ownership has previously been out of reach for much of the population. With demand and supply becoming increasingly globalised in the automotive industry, logistics efficiency will take centre stage for FVL in the coming years.

YoY growth for total vehicle production 2025



US



China

Optimising automotive supply chains with **Cars in Containers**

Streamlined logistics to achieve speed-to-market

Due to the massive size and specialised nature of RoRo vessels, RoRo logistics is limited to only deep-water ports. Even then, deep-water ports must be equipped with infrastructure to support RoRo loading/unloading, requiring a large labour force of stevedores, specialised unloading equipment and proximity to large secure car parks. Because of these stringent requirements, RoRo availability is more restricted, and shipping schedules are less frequent compared to Cars in Containers.

Cars in Containers shipping doesn't require deep-water ports, unlike RoRo

End-to-end **real-time container tracking** available

Geared up for EV

To effectively navigate changing regulations on EV technology, EV OEMs have partnered with experienced logistics providers for the provision of competent transport, especially when it comes to EV batteries. Since EV batteries are classified as dangerous goods, it is important to ensure competent handling and efficient temperature control for these goods. We provide real-time monitored reefer containers that are temperature-controlled, helping you minimise the prevalent dangers when it comes to battery transport. Additionally, Cars in Containers also helps you get resilience in EV supply chains with multimodal transport options and increased route alternatives.

How **integrated logistics** providers can streamline finished vehicle logistics

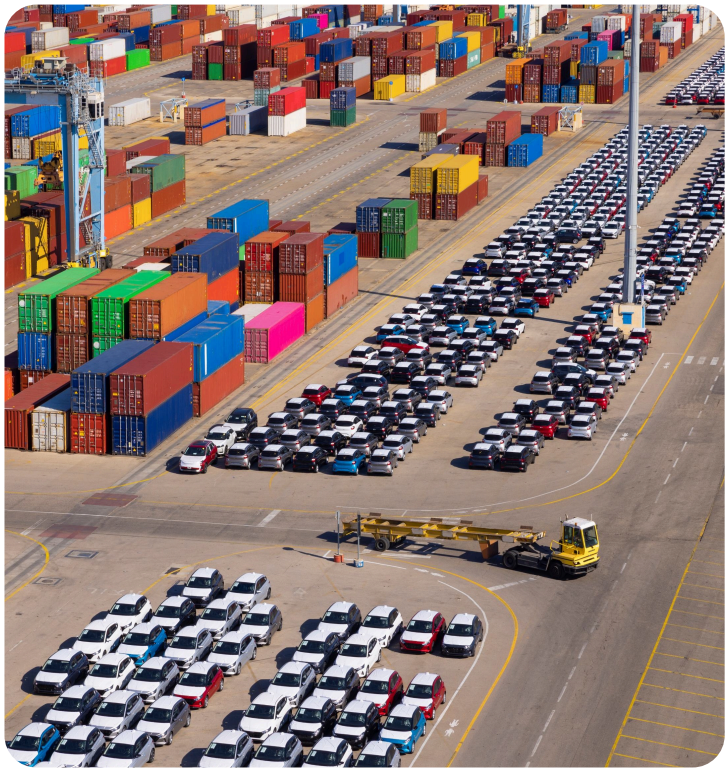
Multimodal logistics with Maersk's Cars in Containers

By partnering with an end-to-end logistics provider, automotive OEMs can take full advantage of the multimodal logistics made possible by Cars in Containers. With a global network of strategic partnerships and owned, controlled capacity, Maersk's logistics network is connected to 475 ports worldwide and fully integrates both land and ocean transport capacity to create a fully end-to-end logistics solution.

A CBU vehicle shipped via Cars in Containers can arrive at its final destination within 60 days of booking, representing a lead time reduction compared to conventional RoRo shipping. This is achieved due to Cars in Containers' streamlined integration with Maersk's end-to-end multimodal transport network, including Maersk's intercontinental rail solutions.

Cars in Containers takes advantage of our partnership with APM terminals worldwide, providing dedicated vehicle depots with expansive staging areas across all global key automotive markets, tailored to meet the distinct demands of each region.

As an end-to-end service provider, Maersk's dedicated customer care support teams are available 24/7 with local expertise across each leg of the journey. As an integrated logistics provider, Maersk serves as the sole point of contact for the entire journey. And OEMs can expect just one invoice for both the origin and destination of their shipments.



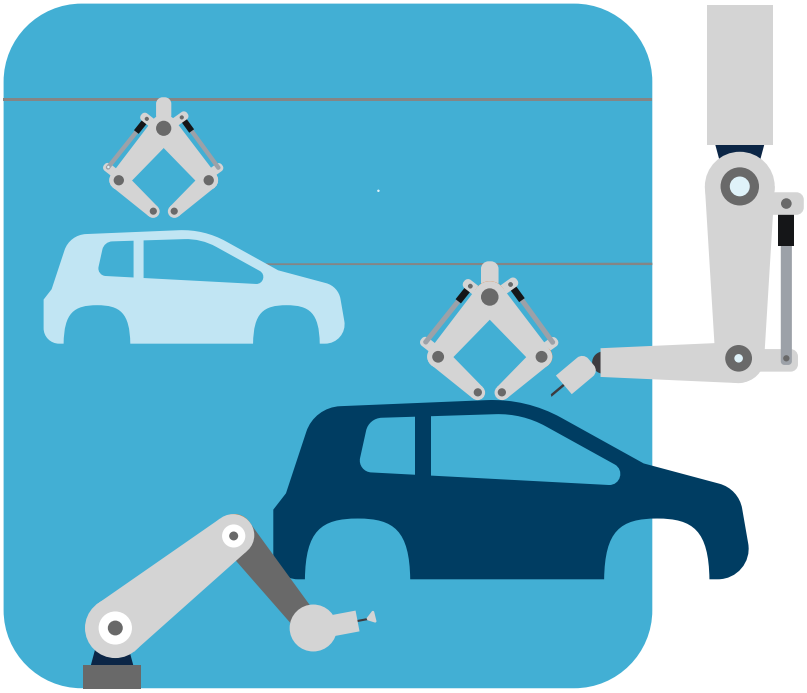
Maersk's logistics network is connected to **475 ports worldwide**

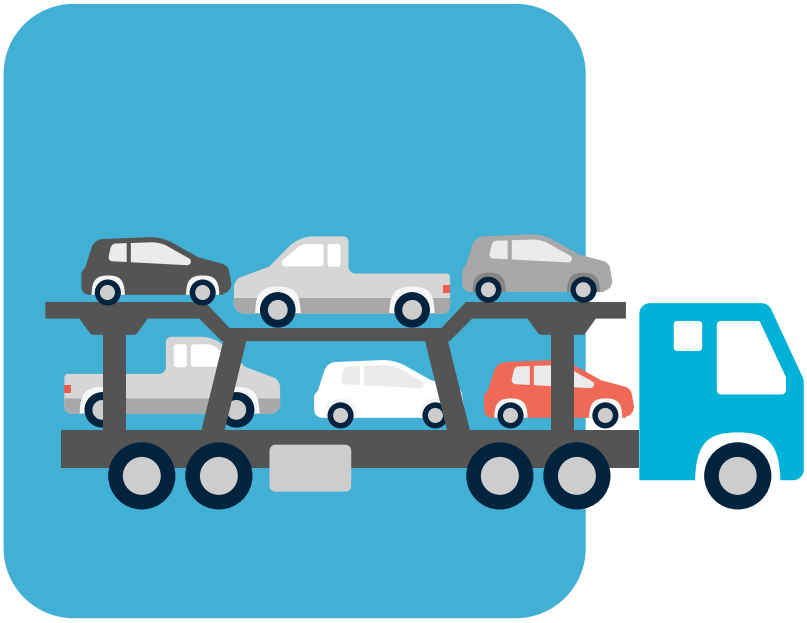
Lead time reduction compared to RoRo shipping

Case Study: **Packing Safety** into Finished Vehicle Logistics

The customer

Based in Gibraltar, Toyota Gibraltar, also known as TGS (Toyota Gibraltar Stockholding Ltd.), is the stocking arm of Toyota's Direct Sales Scheme. Set up to meet the vehicle demands of large international organisations such as the UN and other global NGOs, Toyota Gibraltar has worked with Maersk for over 15 years.





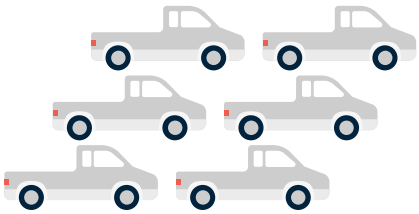
The challenge

Toyota Gibraltar's biggest challenge over the years has been the safe transport of finished vehicles. As a supplier for organisations such as the UN and other global NGOs, oftentimes the final destination of their vehicles may be located in remote inland areas. Their logistics journeys can reach over 2,000 km, travelling through regions lacking paved roads and other logistics infrastructure. In addition, vehicles are shipped with valuable accessories such as stereos, tool kits and spare tires. With Toyota Gibraltar's previous logistics solution, vehicles and accessories were exposed to the elements during the transport and had to be left unattended in lots before final delivery.

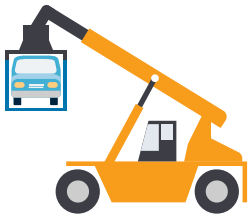
The solution

Working with Toyota Gibraltar, the Maersk team at Algeciras developed an end-to-end, multimodal logistics solution incorporating cars in containers, with 20ft containers for single cars and 40ft containers for two cars. Before this, Toyota Gibraltar had only worked with Maersk for transporting their CBU vehicles over ocean freight. This time, Maersk was responsible for the entire logistics journey, from container stuffing to final delivery to port clearances and documentation.

The result

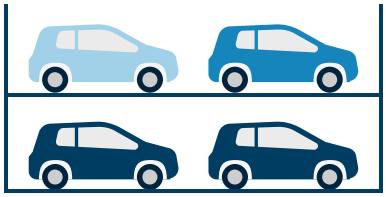


2021 Toyota Gibraltar FVL Consignment -
3500 vehicles



100%
Handled by Mearsk

Zero
recorded instances of vehicle damage/theft



13500
vehicles tranported via Cars in Containers since 2019

Toyota Gibraltar is exploring further destination services offered by Maersk to increase the safety and security of a larger portion of their FVL operations worldwide.

Interview

How containerised vehicle transport fills logistics gaps in automotive supply chains

Antonio Fondevilla
Global Automotive Vertical Head
A.P. Moller Maersk ...

Richard Beard
Head of Integrated Sales,
Automotive & Mobility, Mekong
A.P. Moller Maersk

01 . What experience does Maersk have in transporting cars? How long have you been offering CiC solutions to car manufacturers?

Maersk has been transporting cars ever since the company's founding. In fact, among the first contracts Maersk made upon entering the liner shipping and tanker trade business in 1928 was for moving cars from North America to Japan. With the advent of the modern ISO container later in the century (1950-1960), we began offering CiC solutions. To this day, we still have ongoing contracts for CiC initiated in the last century that have been continuously renewed.

02 . How is it that Cars in Containers provides secure transport for finished vehicles?

In the Cars in Containers model, the cars are effectively secured into a frame or platform with lashings before being locked inside a container. The lashing system protects cars from vibrations from all directions with the container during handling, while the external container protects cars from exposure to external factors such as rain, hail, saltwater and sand. In addition, because containers are multimodal, no one needs to touch or drive the car throughout the entirety of the transport voyage, minimising the risk of scratches and accidents. All our staff are intensively trained on SOPs, compliance with safety protocols, and the importance of constant care and attention.

03 . How does Maersk's CiC solution help manufacturers address zero-carbon or sustainability issues and reach targets?

One of the main advantages of CiC shipping is its small carbon footprint. By switching to CiC shipping, automotive OEMs can see immediate, direct and quantifiable effects an their emissions output. Clients can expect a 60%-65% reduction in emissions per car when switching from RoRo to CiC and a 90% reduction when switching to Maersk ECO Delivery with CiC.

04 . Where have automotive OEMs begun seeing the higher value proposition of Cars in Containers over RoRo shipping in their FVL strategies?

The value proposition of Cars in Containers depends on each OEM's specific situation. In some cases, Cars in Containers offers tactical value in helping an OEM meet urgent speed-to-market targets for their finished vehicles. In other cases, it offers strategic value in reorienting and redesigning an OEM's entire supply chain for future models. Furthermore, it comes with the added benefits of increased supply chain flexibility, better scheduled predictability, access to multimodal logistics, decreased capital tied up in supply chains and lowered inventory requirements.

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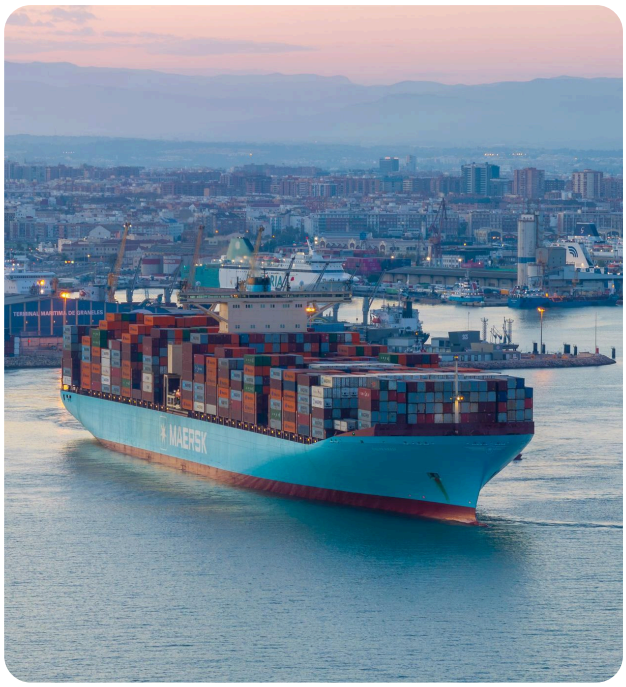
Furthermore, CiC shipping comes with the added benefits of reduced emissions, increased supply chain flexibility, better schedule predictability, minimised cargo loss, access to multimodal logistics, decreased capital tied up in supply chains and lowered inventory requirements.



06 . Where have automotive OEMs begun seeing the higher value proposition of CiC shipping over RoRo shipping in their FVL strategies?

At Maersk, we see CiC as a long-term strategy. While it's crystal clear that the current challenges facing RoRo shipping, such as the RoRo carrier shortage and yard congestion, have made CiC a stronger value proposition, the automotive industry is also rapidly transforming. With increasingly globalised digitalisation, we've seen the rise of the agency model and the direct-to-consumer model. These changes signal to us clear opportunity to reshape the FVL market.

Maersk has already begun working with major OEMs in the automotive industry to ship all types of cars, ranging from small urban utility vehicles to big luxury SUVs, in containers. Moving forward, Maersk is dedicated to expanding the scope of its end-to-end CiC logistics services to increase the value proposition of CiC shipping to a wider range of FVL scenarios.

Conclusion

Shipping CBU vehicles in containers offers the following benefits:

Streamlined integration with end-to-end multimodal logistics

Increased speed-to-market due to increased flexibility in scheduling and access to more efficient routing options

Stabilised cost translates to cost savings for irregular small volume shipments

Get in touch →

Sources

1. https://www.businessresearchinsights.com/market-reports/automotive-market-102183

2. https://www.mordorintelligence.com/industry-reports/finished-vehicles-logistics-market#:~:text=The%20Finished%20Vehicles%20Logistics%20Market%20size%20is%20expected%20to%20reach,USD%20178.62%20billion%20by%202030

3. https://rhomotion.com/news/over-17-million-evs-sold-in-2024-record-year/

4. https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/why-the-automotive-future-is-electric

5. https://english.www.gov.cn/archive/statistics/202501/13/content_WS6784c4a2c6d0868f4e8eec70.html

6. Source: https://www.globenewswire.com/news-release/2024/04/15/2863107/0/en/Automotive-Industry-Size-Expected-to-Reach-USD-6-678-28-Bn-by-2032.html#:~:text=Automotive%20Industry%20Size%20Expected%20to%20Reach%20USD%206%2C678.28%20Bn

Research: Precedence Research

7. Source: https://www.iea.org/news/the-worlds-electric-car-fleet-continues-to-grow-strongly-with-2024-sales-set-to-reach-17-million

8. Source: https://www.statista.com/topics/1721/us-automotive-industry/

P.S. Maersk's internal data has been used across the document to substantiate internal claims.