



DP WORLD

PORT-CENTRIC LOGISTICS

An automotive supply chain solution
from manufacturer to floor





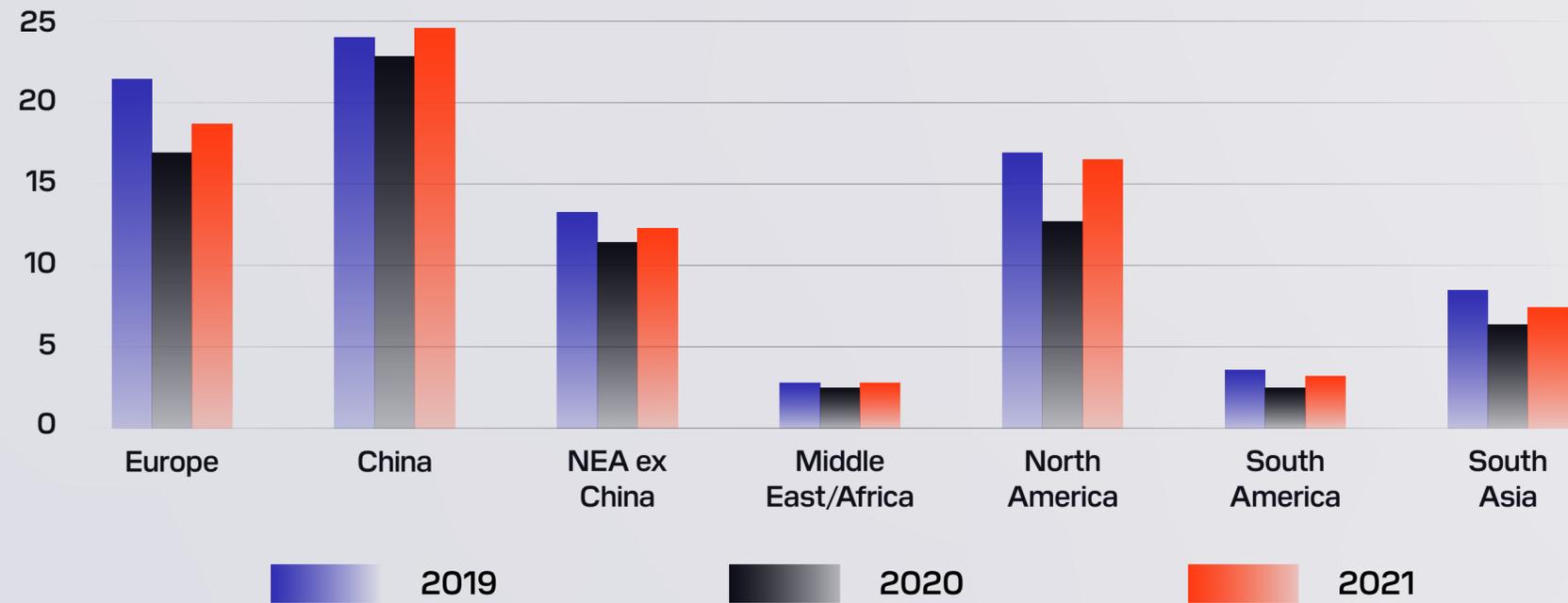
SECTION 1: THE MARKET

Surviving the pandemic: The automotive market seeing glimpse of growth

The automotive sector took a significant hit from the global slowdown caused by the COVID-19 pandemic but is already shrugging off the effects and recovering strongly. Moody's forecast sales of light vehicles will rise by 7.7% in 2021, while IHS Markit forecasts an even more robust 9% sales rise.¹

¹Is the COVID-19 slump over for carmakers in emerging markets? | [term:name] 2021 | Oxford Business Group

ANNUAL LIGHT VEHICLE PRODUCTION

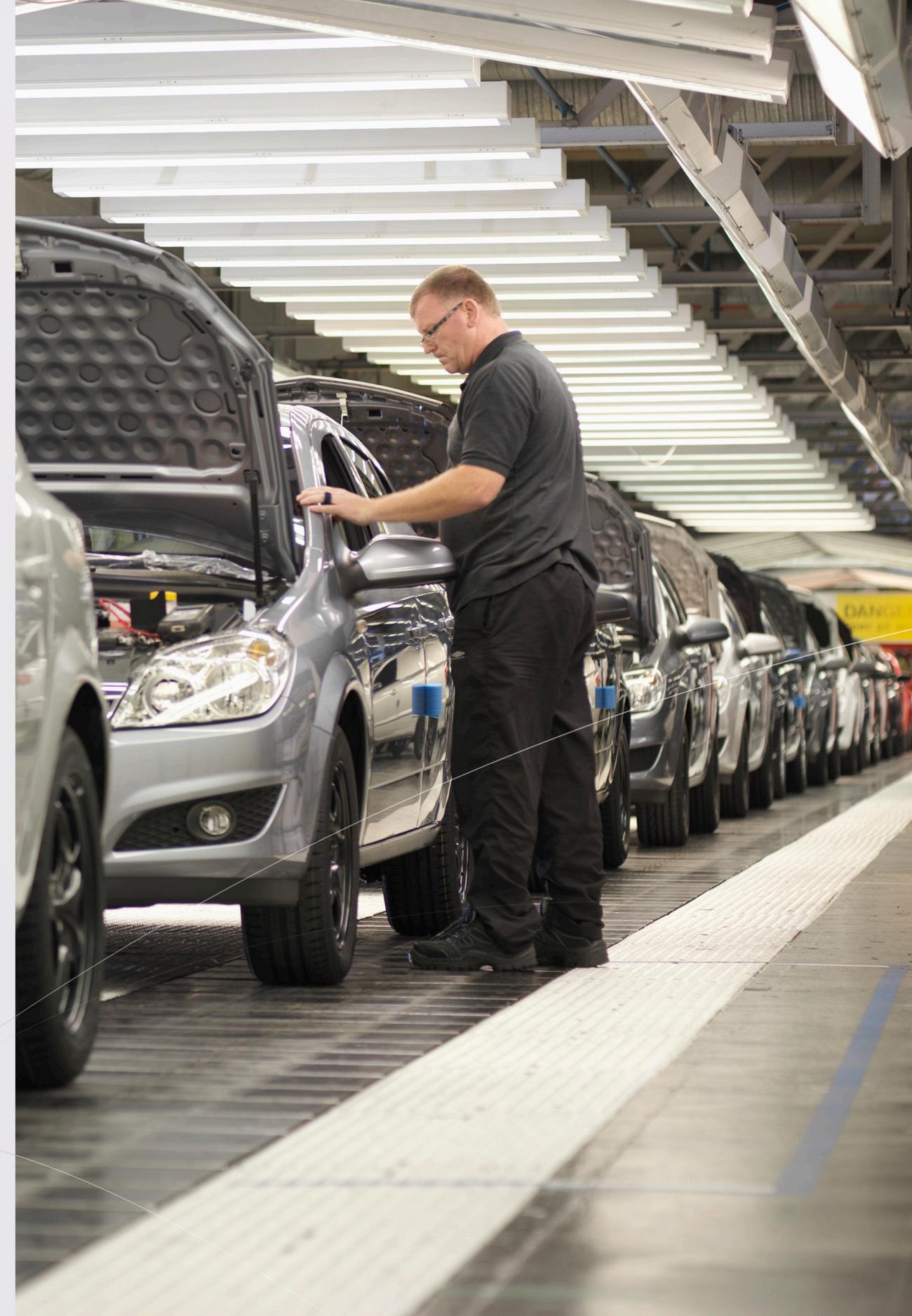


The sales rise is in part due to consumer demand, pent-up under COVID lockdowns, but it is also being driven by the transition to a low-carbon economy that is raising sales of electric vehicles.

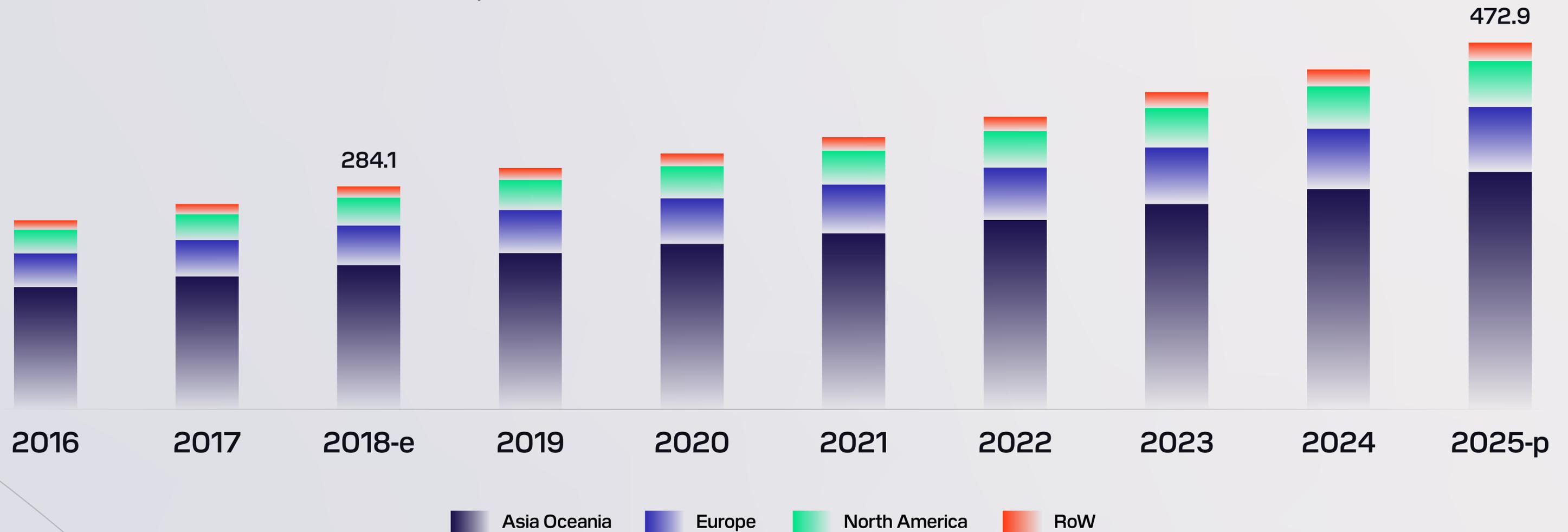
As sales and production rise, there is increasing demand for more effective logistics solutions. Valued at \$142 billion in 2019², the automotive logistics sector—warehousing and transport of both parts and finished vehicles—is forecast to show compound annual growth of about 6% between now and 2027.³

² Global Automotive Logistics Market Size Report, 2027-2020 (grandviewresearch.com)

³ Global Automotive Logistics Market Size Report, 2027-2020 (grandviewresearch.com) and Automotive Logistics Market | Growth, Trends, and Forecast (2024-2019) (mordorintelligence.com)



AUTOMOTIVE LOGISTICS MARKET, BY REGION (USD BILLION)



Emerging markets are expected to be among the beneficiaries, being home to a large proportion of global vehicle manufacturing as well as growing consumer markets. DP World is a leading provider of port and terminal facilities for the automotive sectors across the globe and in those fast-expanding emerging markets.

Automotive logistics has two aspects: the upstream and the downstream. Upstream, or inbound logistics, is typically for manufactured and after-market spare part components or accessories being transported to other sites or assembly lines. This is a field in which DP World has excellent, well-established capabilities.

But we believe DP World also has much to offer downstream, or outbound logistics, which is finished vehicles heading to market. The international transportation of finished vehicles is typically a task for international car freight carriers, but a crucial moment in this process is when those vehicles reach their destination port and begin their final journey to the buyer. When these vehicles are unloaded, DP World can bring its resources, expertise, and vision to help transform automotive logistics.





THE CONSTRAINTS OF TRADITIONAL AUTOMOTIVE LOGISTICS

Logistics models in the automotive sector evolved to reflect the structures of the industry during the 20th Century. The framework of this model is the classic hub-and-spoke. The vehicle manufacturer ships finished vehicles to a port, then vehicles are transported to an inland warehouse hub or compound. Here final preparations are made, such as repackaging and pre-delivery inspection. Distribution to the end customer is then handled at the compound by third-party service providers and dealerships.

This model has served the industry for decades, but new technology, rising consumer expectations, and the demands and difficulties of just-in-time supply chains have been evolving rapidly. In today's market, the traditional model incurs unnecessary costs, hampers the development of new and value-added services to customers, and places heavy constraints on the ability of vehicle manufacturers to develop their business.

The most obvious cost is that of “over-the-road” transport, moving vehicles from the port to the separate warehouse or hub. We are the biggest single player in automotive logistics in Vietnam and our Saigon Premier Container Terminal in Vietnam, currently handles over 50% of the total market of imported finished cars. Manufacturers and dealers have created compounds just outside our port to store those finished vehicles. But is storage so close to the port cost-effective?

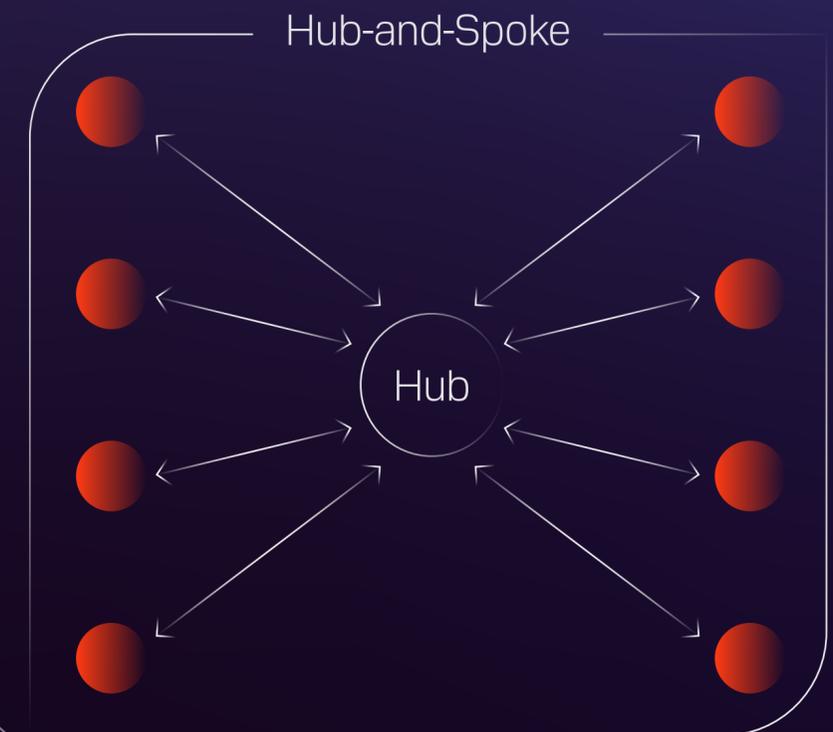
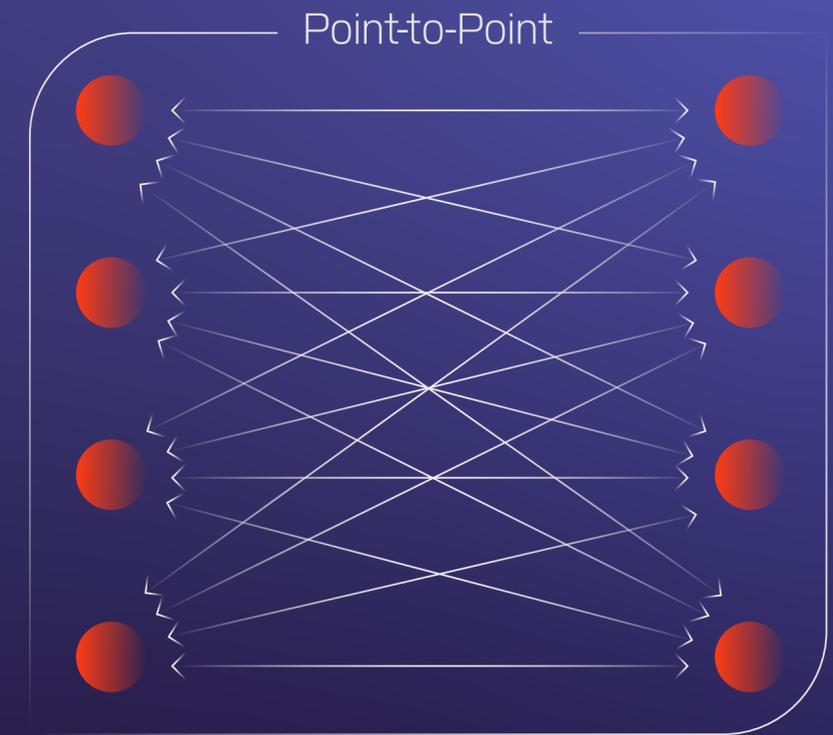
This question is even more pertinent in locations where warehousing is some distance from the port, requiring significant journeys to transport finished vehicles – trips that do not bring the product any closer to the end buyer.

At the same time, unnecessary links in the chain can mean a loss of traceability, weaker stock control and an added risk of damage – all of which adds up to subpar customer service.

There is also an important impact effect on cash flow because import duties typically must be paid the moment a vehicle is moved away from the port. This means importers need to assess demand and have little flexibility. If the market changes, for good or ill, the need for available stock will change. A manufacturer may find they have too much stock at their hub, on which they have already incurred a duty liability. Or, because they have been trying to keep unnecessary duty costs to a minimum, they may find they have too little stock if demand suddenly spikes up.

The COVID-19 pandemic has also revealed further fragility in the system; even the best-planned systems of just-in-time delivery can prove vulnerable to unpredictable interruptions in international trade.

Automotive OEMs are familiar with all these challenges and constraints and with the difficulties of managing a complex web of third-party providers. It is time for a one-stop solution.

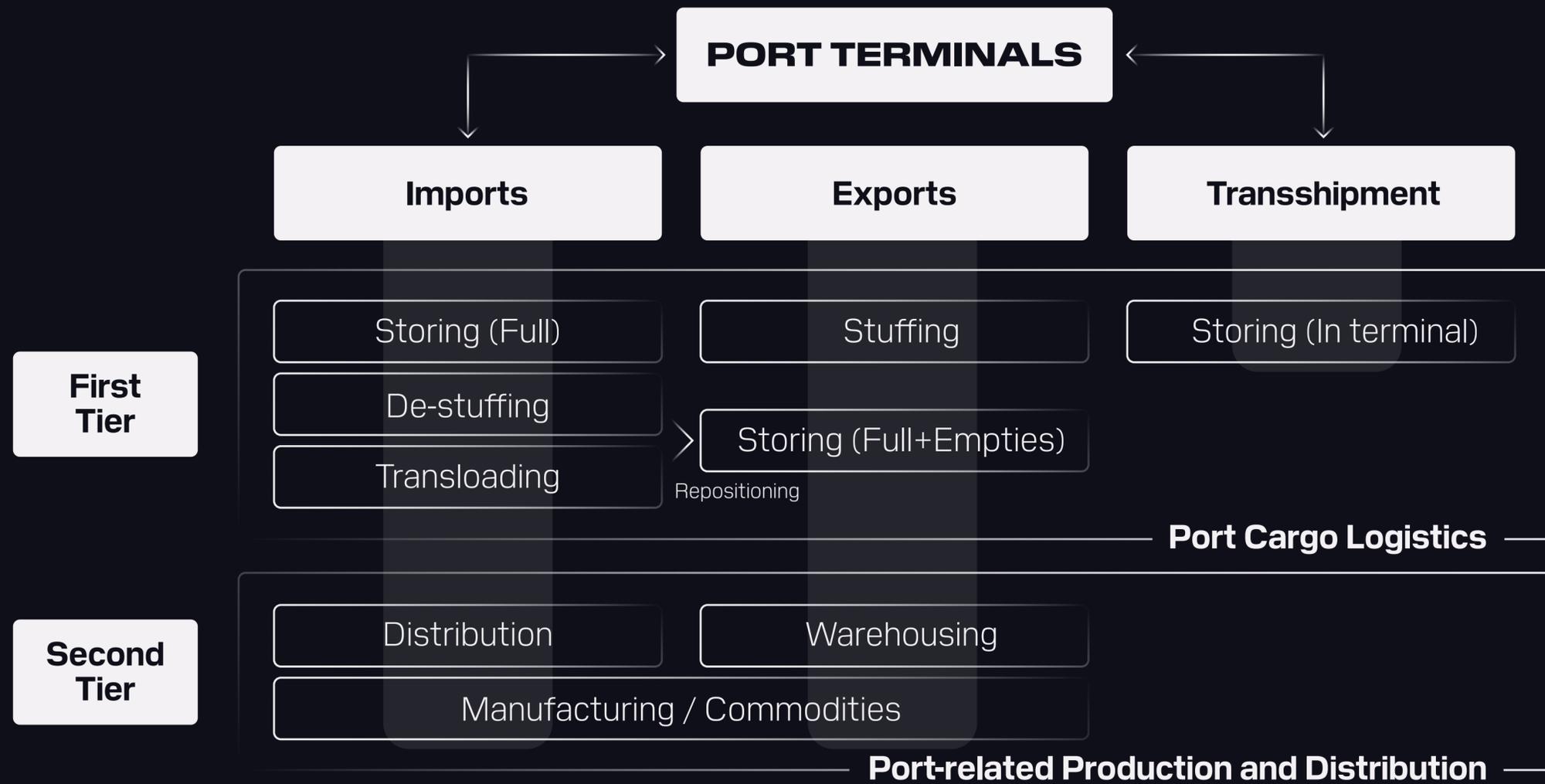




SECTION 1: PORT-CENTRIC LOGISTICS

A unique opportunity for efficiency

Port-centric logistics (PCL) can overcome the constraints currently faced by automotive OEMs in their downstream operations. Developing this model requires technology, expertise, and resources of a global leader such as DP World, even though the principle is elegantly simple.



Under PCL, the logistics facility of the port itself becomes the hub, but not just for distribution. It also becomes the centre for value-added services, product repackaging, checking and even for final assembly of accessories, personalisation, or added components. It therefore can also function as a centre for customer service.



In a PCL model, finished vehicles can be stored at the port facility in purpose-built facilities, providing security, protection and transparency and efficiency in stock management.

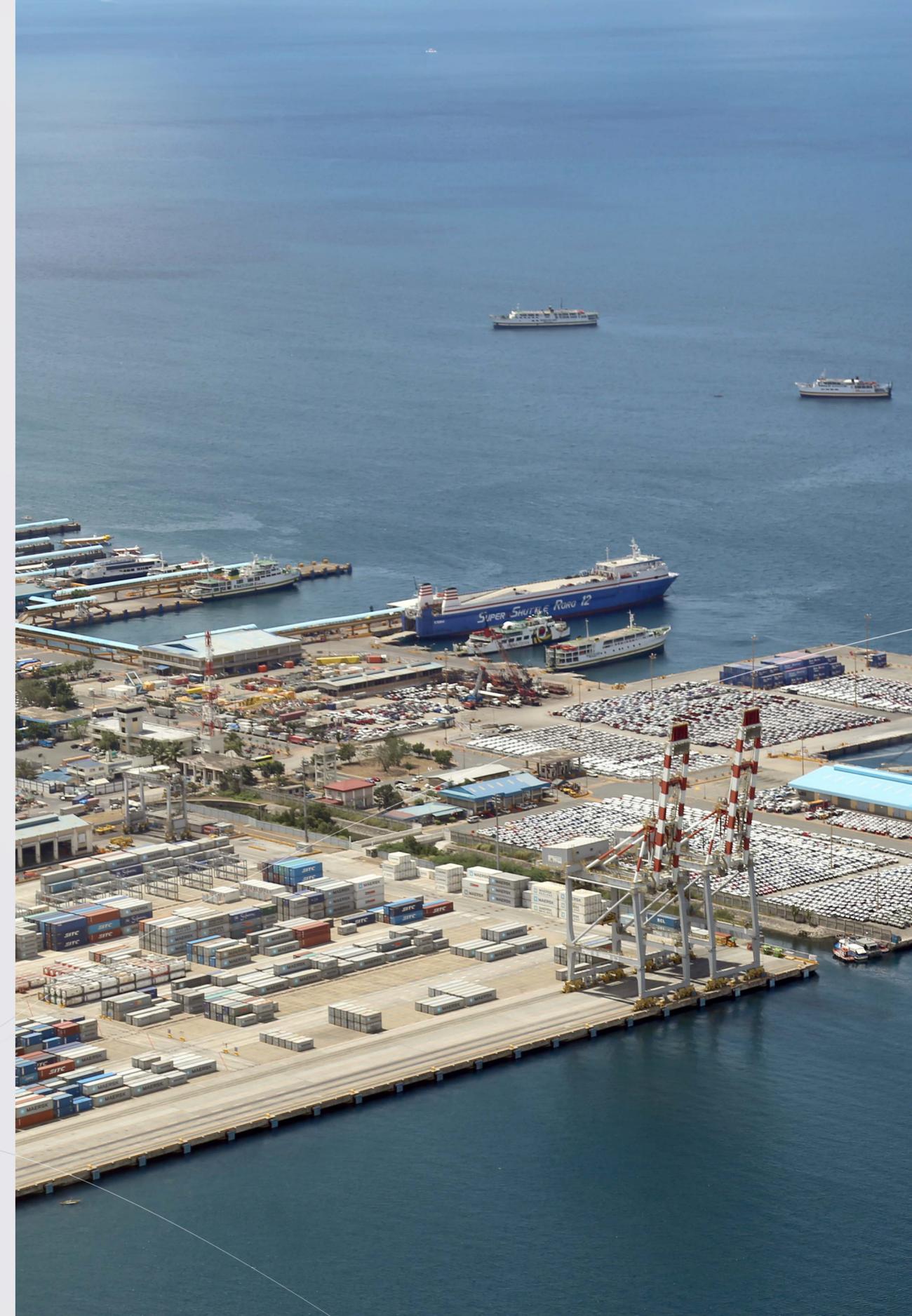
Wim Blomme, head of automotive solutions at DP World, said: “Most of the automotive OEMs have these intermediate steps built into their supply chain. The finished vehicles arrive at port, they are collected and stored at an intermediate compound before they reach the final destination, which is either the dealer or, for premium brands, delivery to the consumer. But you can make these compounds redundant.

We have the space, and we can create the solution on our terminal or in the adjacent logistic parks or free zones we operate. It reduces costs, it avoids the damage that could occur whilst making these moves, and we can offer preferential conditions for storage. And the value-added services like customising cars are also an expertise that we can replicate. Moreover, the speed of delivery to the customer by cutting out the compound, is driving customer satisfaction as especially nowadays waiting times for delivery of new cars are exhaustive.”

Many of DP World’s facilities have the capability to receive vehicles brought in by the car carriers, store the cars and carry out pre-delivery inspection. This includes Jebel Ali in Dubai, San Antonio in Chile, Saint-John in Canada, Posarja in Ecuador, Batangas in the Philippines, and Caucedo Port in the Dominican Republic.

What is more, when the port terminal is in a special economic zone or free-port zone, customs duty or import tax is not payable while these processes are taking place. As well as streamlining duty processes, this allows stocking of product to be more flexible; the cost of duty is not incurred until the product is ready to go to the customer. If the vehicles need re-exporting to meet demand in another market a whole layer of expense and paperwork is avoided.

Port-centric logistics is a solution that cannot be matched by other participants in the supply chain. Shipping companies have invested heavily in specialist car-carrying vessels, for instance, but their capability and control end when the vehicles are delivered to the quayside. Managing inventory and prioritising onward transportation is obviously beyond their purview. Similarly, port-centric logistics cannot be offered by the operator of a land-locked hub located away from the port.





PCL solutions are already proving highly successful in other industries:

BOX: CASE STUDY AMBEV

AmBev is a large global beverage company and majority owner of Cervecería Nacional Dominicana (CND), the maker of Dominican Republic's iconic beer, Presidente. The imported materials needed to produce and package the beer arrive at DP World's Caucedo port, but then must undergo careful preparation before use. Several processes are required, including crating imported empty bottles ready for the bottling plant and labelling for domestic regulations.

Historically these services were completed through third-party providers at various locations in the city of Santo Domingo, around 25 miles from the port. The stock was transported inland by varied local logistics suppliers to multiple distinct locations where service providers performed their tasks, reducing trackability.

The brewer then adopted a port-centric logistics approach in partnership with DP World. These added services are now carried out at DP World's port facility, cutting out multiple stages in the supply chain, reducing costs, improving traceability, and giving better control of the entire process.

The increased efficiency for AmBev and CND of moving to a PCL model are clear. But the potential benefits of PCL for the automotive sector may be even greater.



SECTION 3: DP WORLD'S STRATEGY AND EXISTING INNOVATIONS

The potential of port-centric logistics has been most fully realised at DP World's Jebel Ali Port in Dubai, part of the Jebel Ali Free Zone (Jafza) and the busiest port in the Middle East. It is the central logistics hub for the markets of the United Arab Emirates, the wider Gulf Cooperation Council (GCC) and for the emerging markets of Asia and Africa.

It is also a showcase for port-centric logistics and the benefits it can provide both to the automotive sector and economic growth for its host nation.

The automotive market in the UAE is fast-growing and 82% of automotive trade, worth \$32 billion, passes through Jebel Ali every year. Annually this includes 800,000 new and used vehicles and more than 300,000 twenty-foot equivalent units (TEUs) of parts.⁴

In total, the port accounts for 26% of Dubai's GDP.

At Jebel Ali, DP World provides a one-stop shop for automotive OEMs with a range of services for buyers, sellers, service providers and government organisations such as Dubai Customs and the Dubai Road Transport Authority.

⁴ DP World: Access to Africa | From the industry | Automotive Logistics



KEY SERVICES AND FACILITIES INCLUDE



VALUE-ADDED SERVICES

parts assembly, repackaging, rebranding, and pre-delivery checks can all be carried out at the port facility. As well as providing these services for local markets, the facility has the capability to repack for export to more than 150 countries with links by sea, rail, and road. Jebel Ali handles \$8.7 million worth of automotive spare parts each year. The majority of these (70%) are for re-export.



CUSTOM-BUILT CAR PARKS

State-of-the-art multi-layered car parks (MLPs) have been constructed near the port terminals. The covered structures provide better protection against the elements compared with traditional open compounds. Our portside MLP has capacity for 13,000 light vehicles (car-equivalent units) while a second location, also within the Jebel Ali Free Zone has capacity for a further 13,000 units.



FUTURE-PROOFED FOR ELECTRIC VEHICLES

Our MLPs are fully future-proofed and will be fully able to serve the growing electric vehicle market.



SECURITY

DP World's security system provides perimeter intrusion detection, intelligent video analytics and surveillance drones, along with a host of other state-of-the-art security technology.



TECHNOLOGY

At Jebel Ali our strategic dialogue with customers is dominated by technology. State-of-the-art software solutions are central to the port's PCL solution.

DP World is implementing the Zodiac Terminal Operating System (TOS) across its assets and the system went live in Jebel Ali in 2021. The cloud-based Zodiac system integrates systems to manage every aspect of terminal operations, including berth planning, crane automation, managing depots and vehicle fleets. It uses the internet of things (IoT) to provide real-time container location and tracking.

The Zodiac TOS may also be combined with DP World's own Cargoes Flow system for tracking shipments between ports. The combination will be able to create an integrated end-to-end digital logistics system, capable of identifying the progress of shipments managing and revising arrival times in real time.

Rising customer expectations of speed and traceability for their orders is a challenge facing every sector, including automotive. The PCL model and integrated digital systems can turn this into an opportunity.

A NEW AUTOMOTIVE LOGISTICS MODEL IS 'READY TO GO' AT JEBEL ALI

The facilities at Jebel Ali mean a transformation is now possible for automotive OEMs looking to streamline logistics in the region. The current model involves a 'milk round' of deliveries from European and US OEMs, with RoRo vessels stopping at a series of ports with ownership of vehicles handed over to dealership at each stop.

Port-Centric Logistics at Jebel Ali is fully established and ready to provide a significantly more efficient alternative. Consolidating logistics at the Jebel Ali hub creates a central storage solution with a stock of vehicles maintained at the site, reducing delivery time to dealerships.

Pre-delivery inspections (PDI) can be carried out at Jebel Ali with final distribution to dealerships carried out by containership, RoRo, or road transport. Delivery can be fine-tuned to meet demand at dealerships and, where existing dealership relations allow, can even include final delivery to customers.





SECTION 4: OPPORTUNITIES

Home Delivery of Vehicles

The digital age has been accelerated by the COVID-19 pandemic. More than ever consumers have embraced direct purchasing and direct delivery and have come to expect complete transparency in that delivery schedule.



Wim Blomme says: “The automotive industry will be increasingly forced to improve the speed to market and create the same visibility as consumers have with platforms like Alibaba, Amazon. You order; you want to know where it is now; you need to know when it will arrive; and, if it doesn't come on a planned date, you want to have a revised ETA.”

Forward-thinkers in the automotive sector already know that this is the future for the sale of light vehicles. Digital integration of systems across the logistics chain will be crucial in meeting those customers' expectations, of being able to see the progress of their order. “We are very much looking at combining all the different digital solutions to create exactly that transparency,” says Blomme.

When it comes to meeting customers' expectations, port-centric logistics can also transform that most vital stage of the automotive supply chain – delivery to the end customers.

OEMs may face constraints on this from existing third-party dealership arrangements in certain markets. But where the OEM is itself the dealer in that market, PCL can include personal delivery to the end customer.

Personal delivery direct to the customer has typically been reserved for only the higher end of the automotive market. But there is a major opportunity – that PCL can help make a reality – to scale these direct delivery operations for the mid-range market.

SPECIAL ECONOMIC ZONES

Special Economic Zones (SEZs) provide a valuable extra dimension to port-centric logistics and, particularly the automotive sector with supply chains that often involve multiple locations in different countries and significant activity in the import and re-export of finished vehicles as well as parts and accessories.

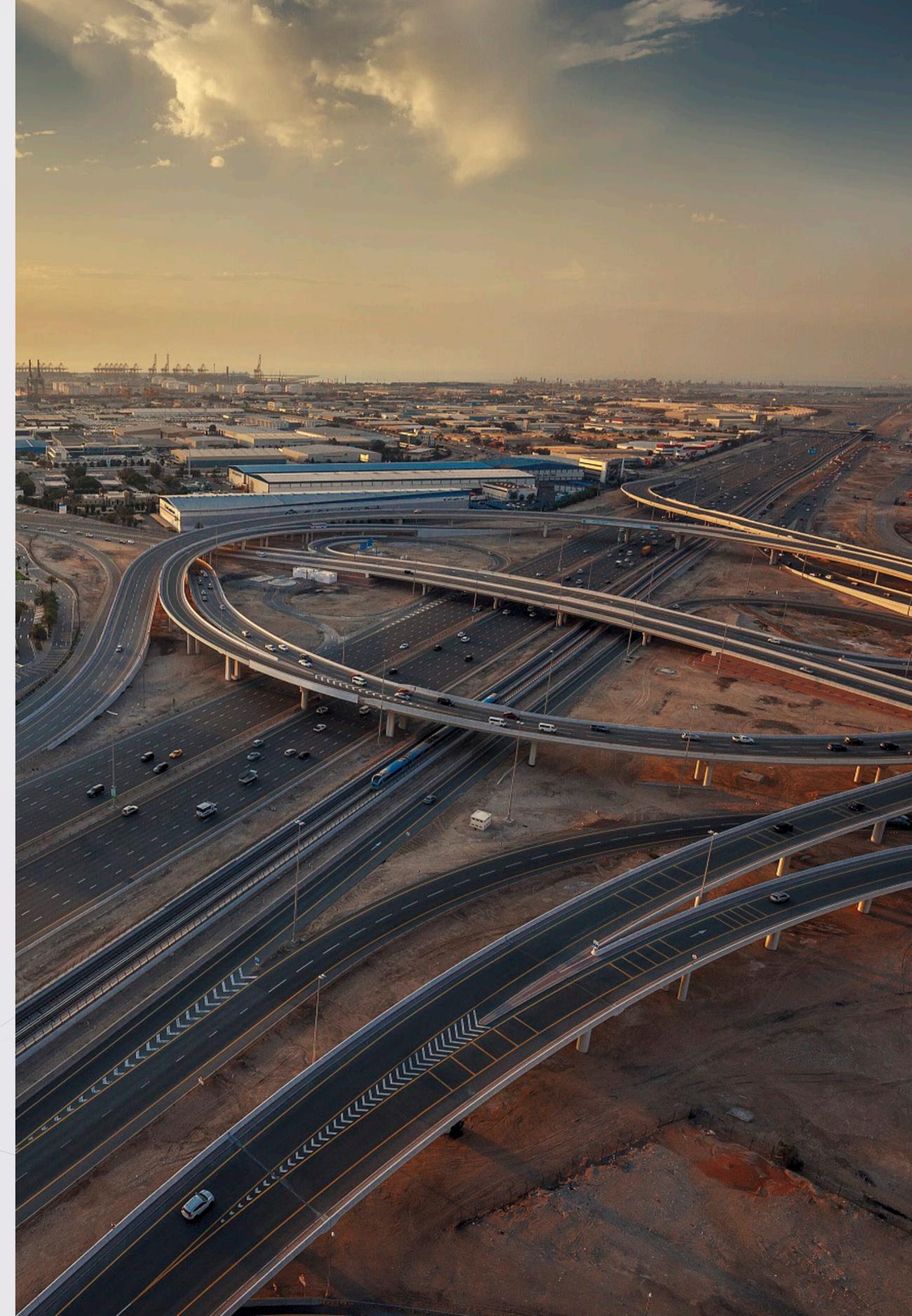
Once again Jebel Ali is an excellent illustration of the potential.

The Jebel Ali Free Zone (Jafza) offers several commercial advantages for automotive logistics, including exemption from corporate tax for 50 years and no personal income tax. For the automotive sector with its extensive activity in import and re-export of both finished vehicles and parts and accessories, perhaps the most significant advantage is freedom from import or re-export duties.

Interest in Special Economic Zones is rising among governments around the globe and DP World has recently launched its container terminal at Berbera in Somaliland, located in the Berbera Economic Zone. SEZs are also being developed in Egypt, Senegal and Namibia and the potential for such tax-efficient zones is also being recognised in developed markets in Europe and North America.

The Jebel Ali Port and Free Zone is a shining example of what can be achieved with port-centric logistics – driving efficiencies for automotive OEMs and delivering economic growth and renewal to local and regional economies.

PCL is now a proven model that DP World can replicate wherever OEMs and economic authorities share that strategic vision.





SECTION 5: WHAT THE FUTURE HOLDS

Not every OEM or every market will be ready for PCL today, but many are, and DP World is at work on major developments around the globe.



CANADA

DP World's container terminal at Canada's Saint John was launched in 2017 to offer an alternative port serving the east coast of North America. It is just 68 miles (110 kilometres) from the US border. The terminal was equipped from the outset with DP World's Zodiac Terminal Operating System and includes bonded warehousing and manufacturing infrastructure.⁶

A \$205 million development is underway to include new wharf capacity, terminal upgrades and deepening of the channel to open the terminal to larger carriers. The upgrades will double the container capacity to 300,000 TEUs, with ambitions to double that again to 600,000 through further expansion.

Crucially the site, with its multi-use facilities for bonded storage and manufacturing, is attracting major transport connections and carriers.

The Port of Saint John is the only Canadian Atlantic port served by Canada National Railway (CN) and Canada Pacific Railway (CP), along with access rail providers in the United States connected to the PanAm Rail network.

Hapag Lloyds in May 2021 announced a weekly container service between the Mediterranean and Saint John which will take advantage of Canadian Pacific's rail links that offer much shorter rail links into the US Midwest.

With the terminal modernisation project set for completion in 2023, DP World's Saint John is expected to become a major high technology logistics hub on the North American East Coast which will also be accommodating increasing needs for the automotive industry.

⁶ DP World Creates New Competition (porttechnology.org)

UZBEKISTAN

DP World is in advanced talks with the Government of Uzbekistan to build a large inland logistics hub and a free economic zone in Tashkent province in the country's southeast. As well as having the nation's capital, the area is emerging as an important crossroads on the new Silk Road that is emerging across the region.

Earlier in 2021 agreement was reached between DP World and the Uzbekistan government to accelerate the plans into their practical phase.

The development will boost trade within Uzbekistan, help local producers access export markets, and build the country's status as a key logistics hub in Central Asia.





INDONESIA

Also in 2021, DP World signed an agreement with Canadian investor Caisse de dépôt et placement du Québec (CDPQ) and Indonesian conglomerate Maspion to build a \$1.2 billion container port in East Java.

To be constructed at Gresik close to the leading Indonesia port of Surabaya, the container terminal will have capacity for up to three million twenty-foot equivalent containers (TEUs) and will be linked to an integrated industrial and logistics park. With an initial land area of 110 hectares and scope for future expansion, the park will be able to provide the benefits of port-centric logistics to the fast-growing Indonesia economy.



SECTION 6: ACQUISITIONS ENFORCING DP WORLD'S GLOBAL POSITION

Wim Blomme mentioned “The recent announced acquisitions of Syncreon and Imperial Logistics will further expand the Customer Value Proposition of DP World and will boost our global footprint within the automotive industry massively”.



Syncreon is US based and specialises in the design and operation of supply chains for the high growth automotive and technology industries. Syncreon has a global presence across 91 sites in 19 countries and services a large and diversified portfolio of customers with longstanding partnerships.

Syncreon's exposure to the sizeable, fast-growing technology and automotive industries offers significant growth opportunities over the medium to long term. We aim to build on this platform to deliver greater scale and provide compelling value add supply chain solutions to cargo owners across a wider market.

Imperial focuses on fast-growing industries including healthcare, consumer, automotive, chemicals, industrial and commodities. Their business has been built on long-term partnerships with cargo owners and they have a presence across 32 countries, including a significant footprint in the high growth African market.



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