

# SUPPLY CHAIN FLEXIBILITY FOR THE AUTOMOTIVE INDUSTRY

# TABLE OF CONTENTS

<b>Supply chain challenges</b>	<b>04</b>	<b>Our unique capabilities</b>	<b>12</b>
Efficiency		Industry expertise	
Emerging markets and globalization		Simplification	
Collaboration		Commitment to excellence	
Talent		Global footprint	
Sustainability		Green logistics	
		Health and safety	
		Innovation	
<b>Sub-sectors and their supply chain dynamics</b>	<b>05</b>		
<b>Our supply chain offering</b>	<b>06</b>	<b>End to end success</b>	<b>15</b>
		Innovate faster	
<b>Supply chain solutions for an evolving industry</b>	<b>08</b>	Procure more competitively	
		Manufacture, distribute and support vehicles for less	



# 04

## Supply chain challenges

With the automotive industry continually evolving, logistics can be complex.



# 06

## Our supply chain offering

We provide innovative solutions that help you simplify your operations, minimize risk and achieve competitive advantage.

## Our unique capabilities

Automotive customers continue to partner with us for many reasons.



# 12

## SUPPLY CHAIN CHALLENGES

With the automotive industry continually evolving, logistics can be complex. Automotive companies need to rethink their supply chain strategies in order to exploit new market opportunities, reduce costs and maintain competitive advantage.

### Efficiency

An assembly plant can cost up to half a billion euros, which puts immense pressure on the manufacturer to get the absolute maximum from its investment. For optimal utilization, the raw materials and components must be available to the plant in close co-ordination with the production schedule. The development of 'build-to-order' or 'just in time' systems also demand a more flexible production environment and more responsive supply chains.

### Emerging markets and globalization

China's ascendancy to become the largest market – and Russia's growing eminence in Europe – is presenting challenges through inadequate transport infrastructures and economic uncertainty. Building new assembly plants in these regions and integrating them into the global production network is necessary. Providing the right kind of logistical support will be vital. As components more often come from further away, managing their journey to the plant is critical. Cross-border transport and customs clearance add another layer of complexity to be addressed.

### Collaboration

One increasingly popular way to lower costs and minimize risk is through collaboration. Many of the industry's biggest names form alliances to work together, particularly across supply chains, procurement and development.

### Talent

Finding the right people is key to a successful supply chain. Skilled engineers often move to align with industry demands. Finding talent can get difficult in some areas. Managing an evolving supply chain will demand employees of the highest quality with the appropriate technical knowledge and experience.

### Sustainability

Companies want to reduce carbon emissions across the manufacturing lifecycle, not just in the finished product. Together with their providers, they develop embedded sustainability programs and reduce the carbon footprint in day to day operations across the entire supply chain.





# AUTOMOTIVE SUB-SECTORS AND THEIR SUPPLY CHAIN DYNAMICS

## Passenger vehicles

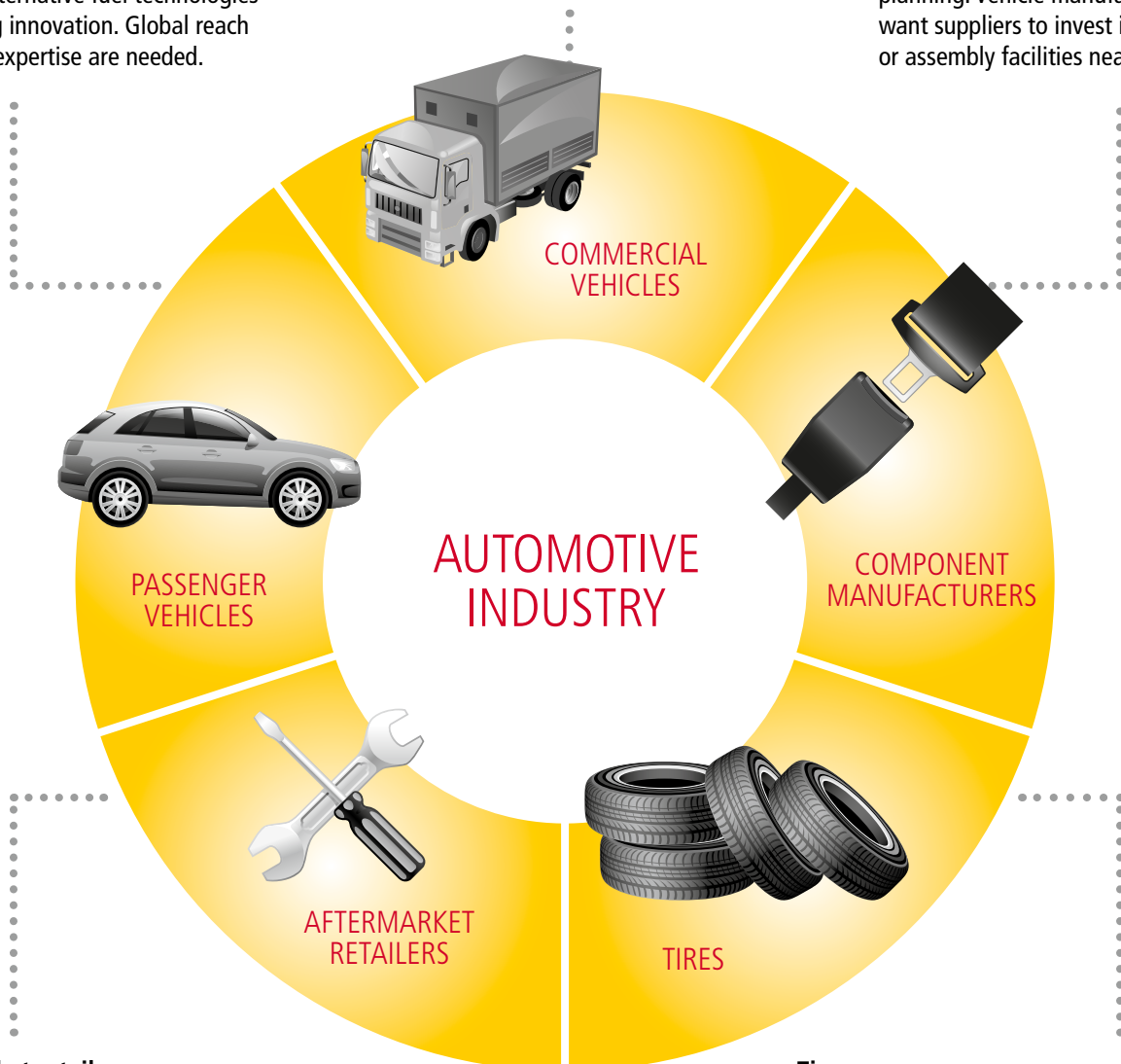
Brand building is increasingly important due to growing competition and more price-sensitive buyers. Car ownership increases. Substitutes, such as public transport, are likely to offer a threat to car makers. Alternative fuel technologies are driving innovation. Global reach and local expertise are needed.

## Commercial vehicles

Increased concern for sustainability means companies have to improve fuel efficiency and lower CO<sub>2</sub> emissions. Importance of collaboration with Original Equipment Manufacturers (OEMs) and customers to co-engineer new vehicle technologies.

## Component manufacturers

Growing importance of technology in vehicles impacts automotive supply chains. Customers specify options at the dealer or through the internet which shapes production planning. Vehicle manufacturers want suppliers to invest in logistics or assembly facilities near plants.



## Aftermarket retailers

OEMs are experiencing an increasingly competitive after sales environment. Non-franchise workshops, anti-competitive legislation, low cost imports and non-genuine components are eating into share of the market. Requests for replacement parts and servicing vehicles must be dealt with immediately to maintain customer satisfaction.

## Tires

Demand for tires is affected by uncertain economical times. Tire brand strength plays a role in reducing manufacturer buyer power. Innovation is important to get customers' attention. Environmental requirements have become more stringent over time.

## OUR SUPPLY CHAIN OFFERING

We provide innovative solutions that help you simplify your operations, minimize risk and achieve competitive advantage.

Manufacturing vehicles for global markets demands a global approach, investing in local skills and resources while carefully maintaining quality, capacity and control. Working in partnership with your logistics provider should help you streamline operations, reduce risk and maximize productivity to keep pace with demand. Our offering is designed precisely to meet your needs, creating a sophisticated supply chain that will bring benefits throughout the entire lifecycle of your products and services.

With some of the world's best logistics planning experience, our teams and consultants fine-tune your operations, from component supply for manufacture, to vehicle delivery, to aftermarket services delivering consumer support.

Automotive materials and components often come from multiple, dispersed suppliers. Our inbound to manufacturing solutions support flexible, dynamic production, matching supply to constantly varying demand. Competitive procurement keeps costs under control, providing continuity of supply and reducing costly delays.

We excel in the challenges of overseas operations, bringing order and control to complex operational movements. From meeting excise and importation regulations to providing local supplier parks, our systems ensure that stock is tracked, tagged, stored and delivered to the lines at the optimum moment for production.



Finished vehicle storage and delivery demands secure resources and experienced personnel. Fleet inspection and quality checks are second nature, while our advanced transportation logistics eliminate costly, inefficient routing and ensure finished vehicles are delivered when and where they are needed.

We understand the unique challenges of dealing with vehicle components. We guarantee overnight tire delivery from the distribution center to fitters. Our flexible and responsive supply system helps fitters cope with the peaks and troughs in tire demand without burdening them with excess inventory.

We have designed special packaging for batteries which makes the return of hazardous components, such as lithium batteries, safe and simple.

We control the whole logistics process including order, exception and data management via our Automotive Control Tower, ensuring each individual battery can be tracked throughout the supply chain.

Automotive brands are built on positive consumer experience. We keep dealer networks supplied with aftermarket components, providing a capacity for urgent same-day and overnight response. Where recall or inspection is required, we can support your network, ensuring delivery.



# SUPPLY CHAIN SOLUTIONS FOR AN EVOLVING AUTOMOTIVE INDUSTRY

The new industrial supply chain revolution sees traditional supply chains becoming customer centric demand chains, and companies need to transform accordingly.

There are a number of issues associated with transforming to a customer centric demand chain, including, knowing where to strategically position supply chain assets, changes in consumer consumption demands, accelerating technological changes and a lack of supply chain visibility.

This all has to be managed within an environment of volatility, uncertainty, complexity and ambiguity.

## RESPONDING TO YOUR CHALLENGES

These challenges require a new way of thinking. As your challenges continue to evolve so does your need to evaluate and assess the suitability of your supply chain; are you keeping up with your customer's demands?

We believe increased visibility and standardization based on a 'plug-and-play' supply chain allows you to face these challenges with the right level of agility.

With this in mind, we provide a portfolio of solutions that can be easily implemented and build upon our logistics expertise and global reach.

We create competitive advantage by delivering exceptional operational service and innovative solutions across the entire supply chain. From the initial consultancy and design to warehousing, final distribution and reverse logistics, we address your unique challenges with modular solutions which are localized to suit your specific market requirements.

## ENHANCE SUPPLY CHAIN EXPERTISE AND RESOURCES

Whichever solutions you trust us to provide for you, you can be sure that we have the capability and expertise to deliver

the business results that you wish to achieve. Our highly skilled logistics engineers work with you to provide competitive advantage, allowing you to focus on your core business.

## GLOBAL REACH AND SPEED TO MARKET

To meet your global ambitions a logistics provider can help you gain access to new markets. A provider can ensure an efficient set up of solutions making sure you receive the same level of high operations quality no matter which geography you operate in.

## OPTIMIZING COSTS AND LOGISTICS CONTROL

You can trust us to manage any aspect of your logistics business. Whether you are looking for a one stop shop, or a provider who can meet your specialist, niche requirement; all our solutions aim to improve the visibility and control of your supply chain.





## DHL SUPPLY CHAIN SOLUTIONS



### Transport Solutions

Helps your business maintain high levels of service and reliability, and gain full visibility into product movements. At the same time, we reduce your transportation costs. Our team will put together the ideal combination of systems, carriers and resources to meet your specific needs.

- DHL Managed Transport and Brokerage
- DHL Inbound Transport Operations
- DHL Outbound Transport Operations



### Warehousing Solutions

Improve inventory efficiency and accelerate your response to changing customer demand. Our experts design, implement, and operate flexible warehousing and distribution solutions tailored to your business needs. They analyze every point in your supply chain to determine the optimal solution.

- DHL Warehousing
- DHL Real Estate Solutions



### Management Services

Gives you the confidence that each of the outsourced elements will be handled by true specialists. Consulting and management services are available as stand-alone offerings or as add-ons to our transport or warehousing solutions. Whatever you outsource, your business will benefit from DHL's global strengths and best practices.

- DHL Logistics Consulting
- DHL Procurement Services
- DHL Recall Services
- DHL Business Support Center



### Integrated Solutions

Help you extend efficiency, flexibility, and cost benefits to your entire end-to-end supply chain. By drawing all necessary (transport, warehousing and management) services together into a complete, optimized package, your supply chain operations are simplified and your business becomes stronger and more efficient.

- DHL Lead Logistics Partner
- DHL Inbound to Manufacturing
- DHL Service Logistics
- DHL Indirect Materials Management (MRO)
- DHL Envirosolutions
- DHL Fulfillment



### Additional Services

Include more than 250 service options that, when combined with our solution offerings, provide you with the flexibility to address your individual logistics needs.

- DHL Packaging Services
- DHL Pre-Sales Services
- DHL In-plant Logistics

We control the whole logistics process including order, exception and data management via our Automotive Control Tower, ensuring each battery can be tracked throughout the supply chain.

#### IT management

Whether you require a new solution from scratch or integration into your existing system, we design and implement our solutions to match your needs. We bring consistent, high-quality, cost-effective IT services to your supply chain. Through experience working with every system in the business (Oracle, Red Prairie, SAP, Manhattan etc.), we understand how to optimize IT solutions and consistently review and deploy new capabilities as they come on to the market.

#### Business continuity management

If your supply chain is disrupted by a natural disaster or other destructive event it could have devastating consequences. We can help you create a robust business continuity management (BCM) strategy. We undertake pre-emptive continuity planning to identify the risks in your supply chain and put strong measures in place to mitigate them. You can be sure that there is a backup plan for whatever may arise.

#### Real estate management

A well-executed real estate strategy can make significant contributions toward achieving your operational and financial budgets. Real estate plays a vital role in supply chain strategies, as nearly every warehousing or distribution center decision features a real estate component. We are able to mobilize local expertise around the world for the benefit of customers. We bundle real estate and logistics services to offer a single-sourced solution that reduces end-to-end supply chain costs, minimizes risks and improves efficiency.

### CASE STUDIES

#### In-plant logistics

"Volkswagen Slovakia is becoming the benchmark in logistics processes including in-house logistics operations and, considering the forthcoming challenges related to new product launches and increasing production, we require partners that are the best amongst the best."

Head of Logistics, Volkswagen Slovakia









## OUR UNIQUE CAPABILITIES

DHL Supply Chain has a long track-record of running world-class supply chains for many of the automotive industry's most innovative and successful businesses. Automotive customers continue to partner with us for many reasons.

### Industry expertise

DHL Supply Chain is one of the leading contract logistics providers for the automotive industry with 230 operations around the world. By working closely with our customers, our 15,000+ automotive supply chain experts have developed flexible, efficient solutions that increase productivity and drive efficiency across the entire production driven supply chain. We also encourage the sharing of best practice through our global community of automotive customers and supply chain experts.

### Simplification

Our strength is built upon our ability to create collaborative solutions between manufacturers and tier suppliers which make your supply chains more agile and allow you to focus on core business objectives. This reduces operating and capital costs and simplifies your operation.

### Commitment to excellence

DHL is the first choice for continuous improvement and operational excellence. Our proven tools and techniques can be applied at every level to identify process gaps and waste, take appropriate action, measure results, and achieve true breakthrough performance. For us, quality assurance and process improvement are more than merely exceeding standards, regulations and directives. They're about seizing every possible opportunity to raise the bar. Through a structured and systematic approach, we continuously improve standards and customer satisfaction.

### Global footprint

With our unrivaled global capability and experience in emerging markets, we can help you access new growth opportunities and low cost operations across Supply Chain, Express, Freight and Global Forwarding. With local expertise in over 220 countries and territories, combined with our financial strength, we have the flexibility to scale up or down to meet requirements or overcome disruptions.

### Green logistics

The transport sector currently represents 14% of global carbon emissions. As the first logistics company to establish carbon efficiency targets – with targets to reduce carbon emissions by 30% by 2020 – we are at the forefront of green innovation. We will help you enhance your brand reputation and bottom line while decreasing your impact on the environment. Our GoGreen initiatives enable customers to offset handling and transport costs against climate protection projects. By harnessing the benefits of aerodynamic design, we have created the revolutionary Teardrop Trailer.

We also combine alternative fuels, state-of-the-art telematic systems and hybrid and electric vehicles, with simple and immediate solutions such as maximum speed reduction.

### Health and safety

We help you to meet high standards on health, safety and security through extensive training and timely monitoring. We offer consulting and advice on global safety

## CASE STUDIES

### Battery logistics

Electric engines bring up a new issue: how to replace used batteries? For Renault's new Z.E. (Zero Emissions) vehicle, the solution was DHL. We control the whole logistics process including order, exception and data management via our Automotive Control Tower, ensuring each individual battery can be tracked throughout the supply chain. To manage this sensitive and particular kind of logistics – these batteries weigh between 112 kg and 335 kg and have non-standard dimensions – our staff have been specially trained on battery handling and trucks are adapted to the load with specific rails and equipment.



regulations accomplished by in-depth audit processes and regular inspections of our sites. Achieve a lower frequency of workplace injuries, reduce equipment failures and prevent business disruptions. Our satellite and video technology ensures vehicle, driver and load security.

#### **Innovation**

Innovation is at the heart of everything we do. To get things moving quickly, our dedicated Solutions & Innovations team work closely with customers to develop ground-breaking new solutions, such as re-usable, customizable packaging and lithium ion battery logistics. In addition, the DHL Innovation Center brings together leading academic, industrial and technological specialists to speed up the delivery of new vehicles, such as the Teardrop Trailer, from prototyping to market launch.

## **CASE STUDY**

### **A Lead Logistics Provider strategy**

Jaguar Land Rover (JLR) has pulled together its entire inbound network and integrated it under the control of DHL Supply Chain. We manage transport, stock handling and line feeding at three separate plants across the UK. We are also responsible for 85% of global inbound freight with a common service for the three plants through shipments that hinge across three principal European crossdocks. It is a total, accountable supply chain from start to finish, where JLR can understand cost while driving and sharing best practices across all JLR plants.

Automotive Logistics, July 2012









## END TO END SUCCESS

We have outlined the challenges facing the automotive industry and detailed our portfolio of supply chain solutions and services. What makes DHL Supply Chain the perfect fit to address your challenges?

### **Innovate faster**

DHL Supply Chain removes the complexities of automotive logistics. We free your teams to focus on creative, profitable innovation. You can exploit enhanced safety technology and cleaner fuels while developing new vehicles or component parts that match the evolving demands of the market. Seize competitive advantage and valuable market share by getting to market first.

### **Procure more competitively**

In today's volatile global economies, maintaining trustworthy and secure supply chains is critical. DHL Supply Chain can help you optimize your procurement strategy and buying operations across the board – and across borders. Plan component and raw material purchases from approved suppliers with confidence. Secure competitive market pricing supported by the appropriate guarantees for quality and supply levels. Operate integrated, collaborative multipartner supply chains.

### **Manufacture, distribute and support vehicles for less**

Operating more efficiently means operating more profitably. Trust DHL Supply Chain to prevent costly, frustrating manufacturing delays. Schedule, control and fine-tune production quickly with best-in-class inbound to manufacturing support. Outsource non-core processes and operations. Leverage the distribution economies of scale that are only possible with an experienced global logistics partner. Provide unmatched levels of support across every territory. Earn a reputation for customer service that defines a brand leader.

- **DHL Supply Chain supports more than 230 leading automotive operations globally, including 13 of the world's top 15 automotive manufacturers and suppliers. Our skills, resources and experience will take your business forward as you rise to meet the new challenges that are shaping the market.**



For further information

Contact our supply chain experts [here](#) >

Or visit our [website](#) >

