SUPPLY CHAIN INNOVATION FOR FAST-PACED TECHNOLOGY
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply chain challenges</td>
<td>04</td>
</tr>
<tr>
<td>Meeting demand</td>
<td></td>
</tr>
<tr>
<td>Driving cost reduction</td>
<td></td>
</tr>
<tr>
<td>Managing risk</td>
<td></td>
</tr>
<tr>
<td>Reducing time-to-market</td>
<td></td>
</tr>
<tr>
<td>Sub-sectors and their supply chain dynamics</td>
<td>05</td>
</tr>
<tr>
<td>Our supply chain offering</td>
<td>06</td>
</tr>
<tr>
<td>Supply chain solutions fast-paced technology</td>
<td>08</td>
</tr>
<tr>
<td>Our supply chain solutions</td>
<td>10</td>
</tr>
<tr>
<td>Our unique capabilities</td>
<td>12</td>
</tr>
<tr>
<td>Industry expertise</td>
<td></td>
</tr>
<tr>
<td>Simplification</td>
<td></td>
</tr>
<tr>
<td>Commitment to excellence</td>
<td></td>
</tr>
<tr>
<td>Global footprint</td>
<td></td>
</tr>
<tr>
<td>Innovative solutions</td>
<td></td>
</tr>
<tr>
<td>Health and safety</td>
<td></td>
</tr>
<tr>
<td>Green logistics</td>
<td></td>
</tr>
<tr>
<td>End-to-end success</td>
<td>15</td>
</tr>
<tr>
<td>Innovate faster</td>
<td></td>
</tr>
<tr>
<td>Procure more competitively worldwide</td>
<td></td>
</tr>
<tr>
<td>Manufacture, distribute and support products for less</td>
<td></td>
</tr>
</tbody>
</table>
Our unique capabilities
DHL Supply Chain has a 40 year track-record of running world-class supply chains for many of the technology industry’s most innovative and successful businesses.

Supply chain challenges
Technology supply chains need rethinking in order to maximize opportunities, reduce costs, minimize risk and achieve competitive advantage.

Our supply chain offering
We provide innovative solutions that help you simplify your operations and keep pace in this highly dynamic marketplace.
SUPPLY CHAIN CHALLENGES

Technology supply chains need rethinking in order to maximize opportunities, reduce costs, minimize risk and achieve competitive advantage.

The dynamic market landscape requires getting the latest technology quickly and at a very competitive price to both developed and emerging markets. Simple, consolidated and agile supply chains need to be designed from the perspective of your key supply chain challenges:

Meeting demand
Seasonality, promotional and publicity campaigns, product life cycles and the competitive landscape all contribute to the rise and fall in consumer demand for technology. From production to delivery, the supply chain often has to accommodate unpredictable volume fluctuations. The increasing demand in emerging markets requires cost effective solutions, local expertise and labor.

Driving cost reduction
The intense competitive landscape and constant pressure for lower prices make cost savings a very important aspect of your success. You need to drive down costs through process optimization of component sourcing, manufacturing, distribution and retailing, as well as through analysis of areas that generate high costs. These include labor overheads, warehousing space, transportation and many more.

Managing risk
You must be able to recognize, assess and plan for diverse risks and threats to operations. Exposure to fuel price fluctuations, the impact of natural disasters, geopolitical unrest and theft of goods and components in transit are just a few threatening factors. All these can disrupt and challenge procurement, production and distribution, and can have a great negative impact on the bottom line.

Reducing time-to-market
Bringing new products to the market is complex and needs a synchronized effort of all people and organizations that come in contact with your brand. This is all about linking Research & Development, product development, marketing and demand planning with supply planning, sourcing, manufacturing and logistics.

Technology is a diverse industry, with each subsector and individual customers having their own distinct supply chain challenges and needs. The supply chain for a semiconductor manufacturer is very different from that of a PC or mobile device manufacturer. By breaking the industry down into eight sub-sectors with distinct value propositions, we help you stay on top of your game.
Supply chain innovation for fast-paced technology

Technology Sub-sectors and their supply chain dynamics

Servers and storage systems
Large scale shipments with specific handling and merge-in-transit requirements; sales channels are primarily B2B or value added resellers; strong focus on aftermarket and services.

Producers of handsets, accessories and providers of mobile network services
Rapid product innovation cycles, fashion-like product launches, high level of outsourcing, various sales channels, and increasing demand in emerging markets. Sophisticated distribution and aftermarket supply chain requirements.

Makers of printers, scanners and related document production equipment
Diverse range of products with multi-channel distribution. Special handling requirements, such as technical distribution for high-end products. Green legislation driving return management requirements.

Design and manufacturing of electronic components and equipment
Companies are very flexible in providing services beyond manufacturing (e.g., aftermarket, logistics, sales channels). Trend toward partnerships with logistics providers to enable broader footprint.

Entertainment and audiovisual devices
Highly price competitive market with razor thin margins, short product cycles and fast followers. Cost-driven distribution mainly via ocean/road freight and regional distribution center structure to retailers and online sales channels.

Makers of semiconductor chips and processors
The multiple-step manufacturing process makes semiconductor supply chains one of the most complex – from material sourcing, through wafer fabrication, to assembly and then test, before final distribution to end customers. High value goods with need for VAT optimization solutions. Complex capital equipment logistics requirements.

Makers of telecommunication infrastructure
Project-driven business with specific supply challenges (e.g., roll out in emerging markets). Increasing demand for data capacity drives network upgrades.
Driving cost reduction, managing risk, reducing time-to-market and meeting demand is a complex task you need to tackle in partnership with your logistics provider. For this reason, we have designed our offering to meet your needs and build a consolidated and simplified supply chain that will bring benefits throughout the entire life cycle of your products and services.

Our highly experienced and extensively trained people help you see the big picture and optimize your operations through supply chain consulting, work in partnership with you and support you in planning each step of your product’s journey up until return, repair or disposal.

From the moment Research and Development yields production-ready prototypes, we are on hand. We help you plan and coordinate just-in-time supplies for production, manage the material flows for manufacturing, get the product ready for retail, and finally deliver it where it needs to be at the right time, with the right quality.

Supporting your customers effectively, demands fast and efficient operations that are ready for repair, product replacement or recalls. Our reverse logistics solutions streamline the process end-to-end. From dealing with consumer communications in multiple languages to managing product collection, inspection, repair and replacement, we can safeguard your brand reputation.

With our global and local knowledge and continuous investments in best-in-class IT platforms, we make sure you have constant visibility and reporting, through fast and exceptional customer service all around the world.

From planning to sourcing, manufacturing to storage, distribution to returns, we offer convenient solutions along your entire supply chain to help streamline your business, enabling you to stay one step ahead.
SUPPLY CHAIN SOLUTIONS FOR FAST-PACED TECHNOLOGY

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
OUR SUPPLY CHAIN SOLUTIONS

Continuously evolving and improving, our wide-ranging solutions help organizations to address their most complex, pressing operational needs from transportation to management services.

MANAGEMENT SERVICES

**Labor management** – labor represents 50% to 60% of typical distribution costs. Our labor solutions help you manage these costs and improve the capabilities of your human capital. Our approach combines labor-management technology, engineered productivity standards, comprehensive operating practices and performance recognition while our scale and expertise allows us to bring qualified resources to the task just when you need them most.

**IT management** – whether you require a new solution from scratch or integration into your existing system, we design and implement global IT and project management solutions to match your needs and 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 events, it could have devastating consequences. We can help you create a robust, flexible and fully optimized business continuity management (BCM) strategy. By identifying the risks inherent in your supply chain and putting 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. Whatever and wherever your market, DHL Supply Chain bundles real estate and logistics services to offer a single-sourced comprehensive solution that reduces end-to-end supply chain cost, minimizes risks and improves efficiency.

CASE STUDIES

**Global WMS Roll-out**
DHL Supply Chain implemented a warehouse management system (WMS) roll-out for a global mobile phone provider. The central program management across multiple countries and 3 regions has helped reduce costs and risk, while improving customer service.

**Integrated end-to-end repair service**
A leading provider of satellite based television services needed to improve its repair and service operation in order to take advantage of the huge growth in High Definition television. DHL Supply Chain has significantly reduced inventory and unit repair costs, cut turnaround times and enabled the business to maintain rapid growth.

**End-to-end recall solution**
A leading consumer goods manufacturer turned to DHL Supply Chain requesting support for one of the largest consumer electronic recalls to date, involving over 7 million units across 15 countries. With capacity to handle up to 30,000 packages a day, customers only had to wait a few days for repair or replacement.
DHL Supply Chain has a long track-record of running world-class supply chains for many of the technology industry’s most innovative and successful businesses. Technology customers continue to partner with us for many reasons.

**Industry expertise**
For the best results in your volatile and competitive market, we work closely with you to develop flexible, efficient ways to cope with the short product life cycles, changing customer demands, new sales channels and global distribution challenges. Offering expertise across the range of technology industry sub-sectors, we also share best practice to drive further savings.

**Simplification**
By focusing on what you do best and outsourcing non-core functions, you can reduce capital costs and simplify your operation, optimizing your results. As your lead logistics provider DHL can orchestrate multiple suppliers and operations across the supply chain, taking end-to-end ownership. Dashboard visibility and control enables you to make proactive and informed decisions. Supply chains are often complex and always time-critical. We always ensure you have a single point of contact who understands your program and the expert team supporting it.

**Commitment to excellence**
For DHL, Quality Assurance and Process Improvement are about 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. First Choice is our service optimization scheme to help us understand your needs more fully and adapt our processes to make your lives easier. Using Six Sigma and Lean methodologies, the DMAIC cycle (Define, Measure, Analyze, Improve and Control) is at the heart of our project management methods. Our relentless pursuit of excellence gives you a real and sustained competitive advantage.

**Global footprint**
With our unrivalled 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.

**Innovative solutions**
To get you moving quickly, the DHL Innovation Center works hard to develop new solutions. Our Innovation team brings together dozens of dedicated academic, industrial and technological specialists to develop advances that have included DHL Smart Sensors for accurate geo-tracking, the use of RFID across the technology supply chain and solutions that provide real-time information on shipments.

---

**CASE STUDIES**

**Consolidation leads to customer satisfaction**
Consolidating 21 warehouses into 3 regional hubs, hiring over 60 specialist electronic technicians and owning processes for warehousing, repair and transportation, DHL Supply Chain has improved customer satisfaction for a global vendor of PCs, Notebooks and Smart Phones, while simplifying operations, driving down parts inventory and reducing transport costs.

**Helping reduce carbon emissions**
For a global provider of communication technology solutions, DHL Supply Chain has helped reduce emissions. Efficiencies like optimizing routing for 70,000 vehicles, improving loading ratios, deploying hybrid vehicles and smarter packaging have resulted in a 45% reduction in carbon emissions compared to the year 2000.
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 regulations accomplished by in-depth audit processes and regular inspections of our sites. This enables us to achieve a lower frequency of workplace injuries, lose less time, reduce equipment failures and prevent business disruptions.

Green logistics
Enhance your brand reputation and bottom line while decreasing your impact on the environment. We were the first logistics company to set carbon efficiency targets and our GoGreen (environmental protection program) innovations enable customers to offset handling and transport costs against climate protection projects. We also provide product refurbishment and recycling solutions.

REAL-TIME TRACKING AND SECURITY

DHL Smart Sensors provide our customers with real-time information about their package's location, temperature, humidity, light exposure, pressure, shock and vibration. Designed not to interfere with avionics, the device uses both GPS and GSM radio to transmit data for customers to access through an online portal.

The robust DHL Secure Box has been designed for high-value technology goods and prototypes. It physically protects goods in transit and uses a computer-based locking mechanism for added security. Developed by DHL Solutions and Innovations, it offers an intelligent way to protect against misuse, manipulation and damage, reducing insurance costs as well.
We understand you are in a challenging and fast-paced market. You need a supply chain that ensures speed and visibility, drives constant optimization and creates a sustainable competitive advantage for you.

**Innovate faster**
You need to successfully launch products ahead of the competition and also have the flexibility to make changes during the product development process. Let us remove the headaches and complexities of technology logistics and develop integrated value-added supply chain solutions. Free your best teams to focus on creative, profitable innovations and prototypes and test products at speed.

**Procure more competitively worldwide**
In today’s often volatile global economies, maintaining robust, trustworthy and secure supply chains has never been so important. Our offering helps you optimize your procurement strategy worldwide and creates cost reduction. Plan component and raw material purchases from approved suppliers with confidence and secure competitive pricing supported by the appropriate quality assurance safeguards and supply level guarantees. Get full control and visibility of your supply chain and reduce inventory levels, delayed purchases, damages and obsolescence.

**Manufacture, distribute and support products for less**
Operating more efficiently means operating more profitably. Trust us to prevent costly, frustrating manufacturing delays. Schedule, control and fine-tune production quickly with streamlined, best-in-class Inbound to Manufacturing support. Outsource non-core processes and operations. Leverage shipping, distribution, just-in-time delivery and economies of scale around the world, only possible with an experienced global logistics partner. Provide unmatched levels of technical support across every sales territory. Earn a reputation for customer service that defines a brand leader.

DHL Supply Chain supports more than 300 leading companies in the technology sector around the world. Use our skills, resources and experience to take your business forward.
For further information

Contact our supply chain experts here
Or visit our website

Twitter LinkedIn