



Delivering on Digitalization

An exclusive report for DHL, by Zebra Technologies, outlining how DHL can evolve its logistics and warehouse operations to deliver on its digitalization initiative

Digital Version, 2021



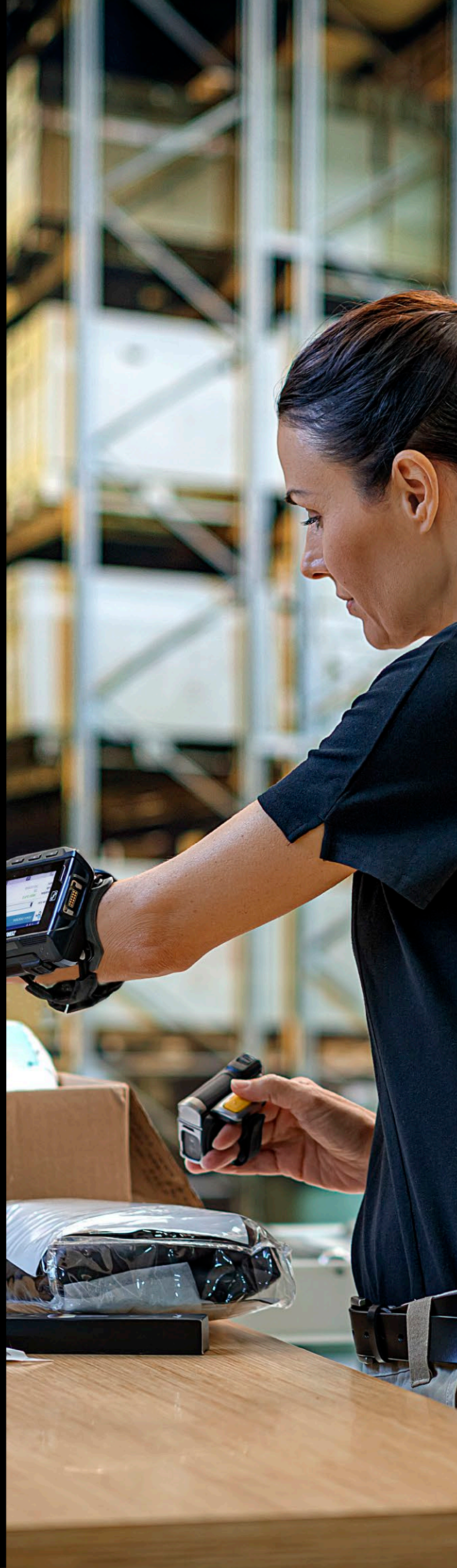
Delivering a Performance Edge Together

DHL and Zebra Technologies have a 20+ year relationship, through which we have collaborated on delivering modern logistics. As market leaders in our respective markets, we are very similar businesses - we both invest heavily in R&D and innovation and we both strive to serve our clients.

As your trusted partner, we have prepared this exclusive report, based on our understanding of your business, and your current priorities, to show how DHL can deliver on its digitalization goals. The report focuses on how DHL can accelerate modernization of its warehouse landscape, as well as the wider delivery network, first through using Zebra's unique methodology to assess your warehouse maturity and identify the best opportunities to modernize, and second through the Zebra solutions that can help with modernizing your warehouses and logistics.

Our analysis indicates that DHL could benefit significantly in terms of cost efficiencies, improved employee experience and end customer experience, by adopting some or all of the warehouse modernization technologies outlined in this report. And, DHL would deliver on its overall business initiative to digitalize.

We hope you find this report useful, and welcome the opportunity to continue our partnership through co-innovation, workshops, assessments and new solutions that are highlighted throughout the report.



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What's inside this report

This report describes how DHL can modernize its large network of warehouses as well as its logistics operations. It is divided into 6 key sections.

1. Overview

A summary of what's inside the report.

2. DHL and Digitalization

Our understanding of DHL's business and its drive to digitalize. Includes examples of your current usage and footprint of warehouses, challenges you must overcome, digital trends in the warehouse and how your competitors are shaping up.

3. Accelerating warehouse modernization

How to accelerate the modernization of warehouses and the wider transport delivery network, through using a Maturity Model.

4. Evaluating DHL maturity and needs

An evaluation of where the different parts of DHL's business sit on the maturity model and what this means for DHL.

5. Solutions for DHL

The range of solutions from Zebra that could help DHL accelerate its digitalization.

6. Summary

A summary of the report's findings along with where next for DHL.

DHL on its Digitalization Journey

DHL overview

DHL is the market leading transport and logistics company, serving customers through its post and parcel, Express, Supply chain, global freight forwarding and e-commerce businesses. Its business strategy is driven by four mega trends for the logistics industry – globalization, e-commerce, sustainability and digitalization.

“We are in the digital revolution, which came in the wake of globalisation, which played a big role in driving growth at DHL”

- chief executive of DHL e-Commerce, **Ken Allen**

Digitalization at DHL

DHL has made digitalization the foundation of its Strategy 2025, underpinning its business unit focus and mission to connect people and improve lives for employees, customers and investors.

With a strong IT backbone in place, DHL has already implemented a range of data analytics and digital notification/ tracking technology to improve every aspect of delivery and logistics.

For supply chain DHL has identified 12 focus technologies which will accelerate its digitalization. DHL must now acquire and deploy this technology across its diverse estate of warehouses and delivery hubs.



Assisted Picking Robots	Goods-To-Person Robots	Wrapping Robots	Indoor Robotic Transport	Inventory Mgmt. Robots	Robotic Arms
SmartOperations	Wearable Devices	Intelligent Process Automation	Algorithmic Optimization	Supporting Robots	Monitoring

DHL's Warehouse Landscape

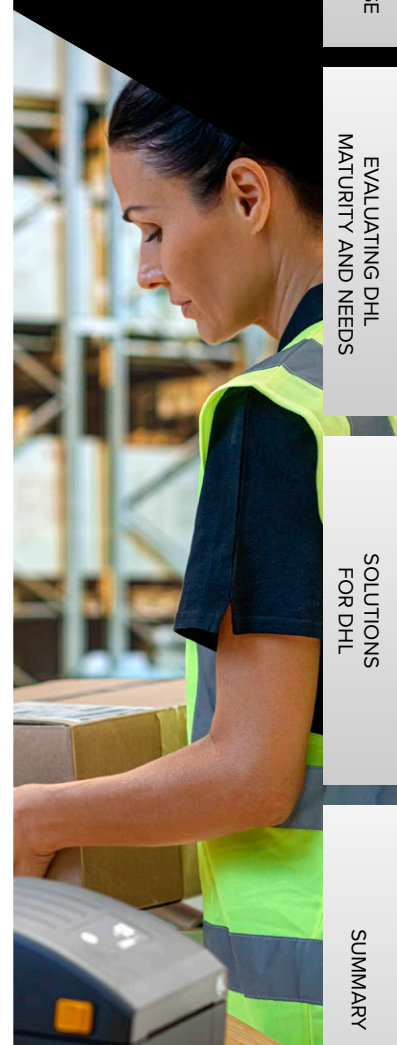
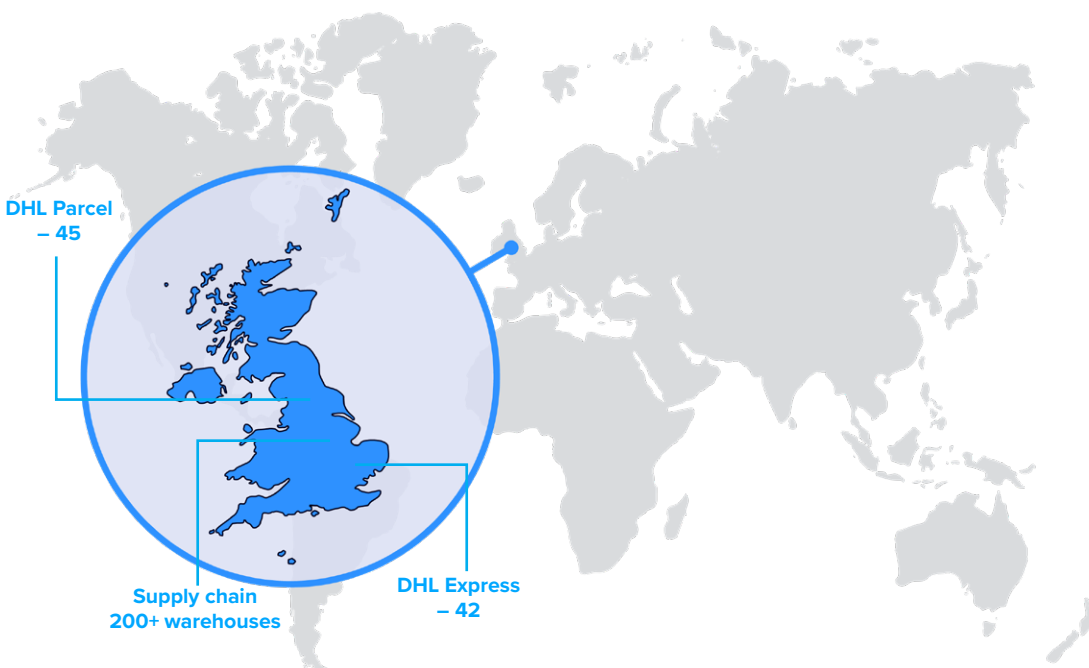
~1400 Sites across 55 countries

Warehouses and distribution hubs are a core part of every part of the DHL group, supporting your local and global post and parcel business, e-commerce and supply chain. According to your recent pocket guide you have circa 12.5 million square metres of warehouse space in operation. It is clear that efforts to modernise the warehouse will pay off in terms of cost savings and improved customer experience.



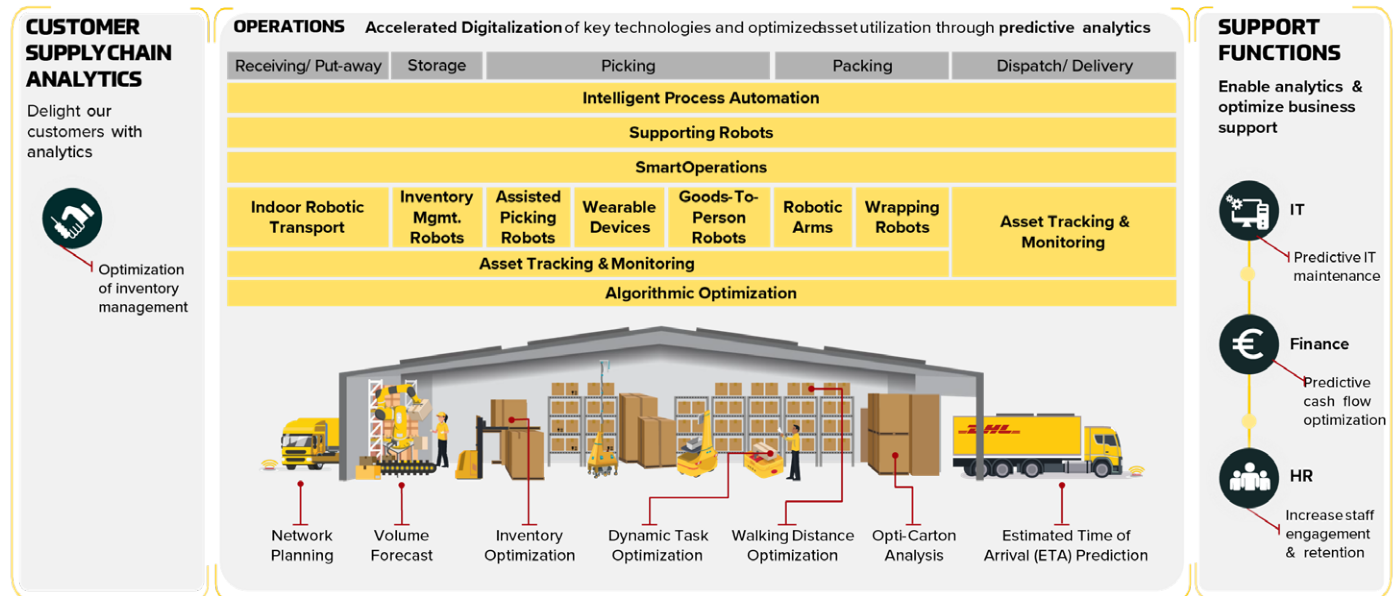
DHL Warehouses in the UK

Taking the UK as an example, DHL has an extensive footprint of warehouses and distribution locations, including 45 Parcel Hubs, 42 Express locations, 2 Express Air Hubs, as well as 200+ warehouses it manages on behalf of key customers like Marks and Spencer's and TJX (TK Maxx), in locations across the UK such as Heathrow, Hatfield and Milton Keynes. Each location is different, representing significant opportunities for various technologies like automation, robotics, wearables and asset / inventory tracking. Even technologies like digital twins could prove invaluable.



Digitalization of DHL's Supply Chain Business

DHL has defined a digitalization agenda for the Supply Chain business that embraces every area – from planning, through the warehouse and out on to the road. This includes use of the 12 focus technologies, especially robotics, wearables and asset tracking/monitoring.



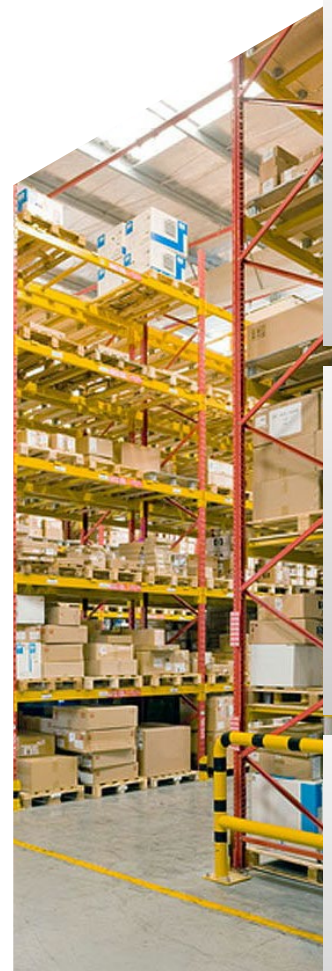
Piloting digital technology in the Warehouse

DHL is already working with Zebra and other partners on technology pilots that will modernise its supply chain warehouses. At DHL this includes pilots with robots, Fulfilment Edge and SmartPack as well as scanning, touch computer and industrial printing solutions at various DHL locations.

To learn more about these pilots and solutions connect with the Zebra team.

Beyond the warehouse

Digitalization goes beyond the warehouse to the yard, and to the delivery network. DHL must take advantage of the latest technology and data solutions to modernise these areas of their business too – whether its smarter yard management, asset tracking and movement optimisation, through RFID and motion solutions, or workforce productivity.



Challenges that DHL must overcome

The supply chain is complex

Satisfying customers is no simple matter. The supply chain covers a multitude of processes, touchpoints and stakeholders, and across a diverse footprint of locations. The on-demand economy is challenging warehousing, with changing order dynamics and huge increases in e-commerce driving picking complexity, increased warehouse volumes, and huge seasonal peaks.

Warehouse operations must keep pace by solving several challenges:

- Isolated systems and visibility gaps
- Labor shortages and more volume
- Disconnected workers and workflows
- Bottlenecks and asset inventory blind spots
- Rising workflow complexity
- Errors and non-compliance

Business priorities for companies relying on warehouses

Zebra recently conducted a warehousing vision study, with some interesting findings on the challenges that need solving, as well as where companies want to get to by 2024. Labour efficiency and productivity was a top challenge, and more than half of companies expect to rely on a combination of technology and humans moving forward.



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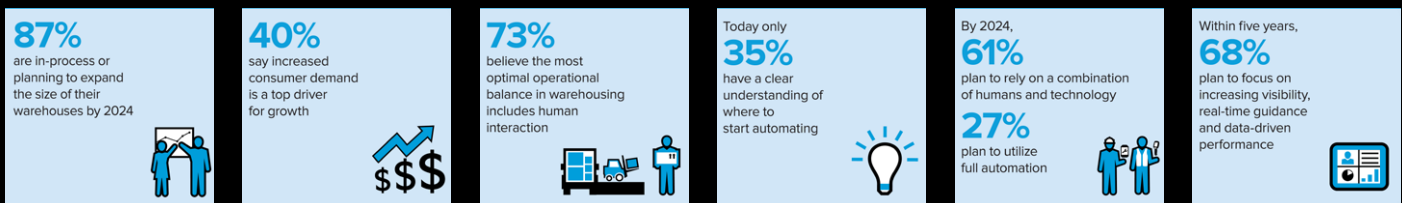
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What do warehouse leaders have to say?



Digital trends in the warehouse and logistics

Zebra also looked at the digital trends driving modernization of logistics, and specifically in the warehouse. These include:

- **Warehouse robotics** – automating warehouse tasks to improve efficiency and speed of warehouse processes
- **Smart wearables** – enabling workers to be more productive, reducing strain and increasing safety
- **AI & Augmented Intelligence** – for intelligent transportation, route planning and demand planning
- **Real-time supply chain visibility** – for an up-to-date view of the supply chain using data from every step, using IOT and RFID tech
- **Blockchain** – enabling more secure delivery and management of sensitive data
- **Data standardisation and advanced analytics** – enabling better integration, reporting and tracking, as well as actionable business intelligence for managers and business leaders
- **Autonomous vehicles** – self-driving vehicles and unmanned aerial vehicles/drones
- **Digital Twins** – digital models of physical objects/locations like warehouses, and mirroring locations for operational efficiency



These align with many of the trends identified in DHL's Logistics Trends Radar (now at its 5th Edition) and with the 12 technology focus areas for supply chain covered earlier in the report.



A competitive space

An expanding market brings more competition

The growth in ecommerce is driving a bigger market, and compensating for the decline in traditional post. It is a highly competitive market with a mix of established giants (DHL, Fedex and UPS), new disruptors (especially in the last mile), and of course Amazon, who are taking an increasingly direct role in every step of the storage and delivery chain.

The global specialized warehousing and storage market is expected to grow from \$58.95 billion in 2020 to \$60.95 billion in 2021 at a compound annual growth rate (CAGR) of 3.4%.** The growth is mainly due to the companies rearranging their operations and recovering from the COVID-19 impact, which had earlier led to restrictive containment measures such as social distancing, remote working, and the closure of commercial activities that resulted in operational challenges. The market is then expected to reach \$84.48 billion in 2025 at a CAGR of 9%.

***Source - PRNewswire Article*

Accelerated transformation

DHL is not alone in executing modernization efforts. All of the big players are undertaking similar projects and initiatives using the latest tech, and in many cases accelerated significantly by the pandemic in 2020. This forced businesses to embrace more use of digital for better tracking, increased throughput and safer working in the warehouse. UPS, for example, has innovated in the warehouse with Ware2Go (an SMB warehousing digital platform) and a new Warehouse Execution System (WES) designed to make its distribution centre's smarter.

Amazon driving innovation and sustainability

The biggest disruptor is Amazon, with its relentless innovation using data and digital, and its drive to be sustainable through its net zero carbon pledge. And this disruption is directly affecting the big players like DHL, as they establish more of their own sorting centres and warehouses, fill their warehouses with robots and roll out fleets of electrical vehicles.

How to stay ahead

To stay ahead, DHL must be resolute in its strategy, accelerating digitalization to at least keep pace with the likes of Amazon, and stay ahead of the traditional competitor base. This means continuing to test and trial different technologies to modernise the warehouse and wider delivery network, and being laser-focused on where the opportunities to improve are. Zebra recommends using a mix of assessments and pilots to define and rollout the most impactful digital initiatives, and keep pace with the competition.

The rest of this report will focus on how DHL can accelerate digitalization to stay one step ahead of its competition through using Zebra's latest models and solutions.



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Accelerating Modernization of Your Warehouses

As we have seen in the first part of this report, DHL is already embracing digitalization as the foundation to improve its business. We have also learnt that the competition is intense, and the pandemic has accelerated transformation across the sector. Warehousing, distribution and fulfilment are undergoing a modern day makeover as they are transformed to meet the growing demands of the on-demand economy.

It's now a question of how, not if or when to modernise. And more specifically, it is a question of **how to accelerate this modernization.**

*"The pandemic made it very clear to all companies – digitalization is the future. And we have to surf on the digital wave to stay competitive."**

- Chief Sales Officer at DHL Freight, Holger Schneemann

*Source - Post-Brexit preparation and digitalization - DHL Freight Connections

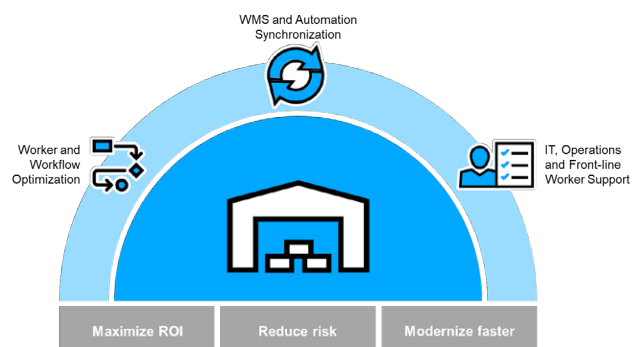
Solutions for a modernised warehouse

Change isn't easy, especially when there's so much at stake. You must understand the complexities of modernizing before you can define and then bring a vision to life. At Zebra, we've innovated and curated the industry's broadest and deepest portfolio, and collaborated with an expansive ecosystem of strategic partners to tackle your operational challenges.

Solutions for modernising the warehouse should be considered across three key areas: worker and workflow optimization, warehouse management systems including automation and synchronization, and finally the support for IT, Operations and front-line workers.

Accelerate Modernization at Your Pace

At Zebra we have also defined some processes and models that will help a company like DHL focus on solutions and initiatives that are most impactful, and at a pace that meets the business need and situation. At the heart of this is understanding your warehouse maturity, and based on this mapping a phased approach. This is represented in our **Zebra Warehouse Maturity Model**, which helps you to migrate, upgrade or innovate at your own pace without upending operations. It also ensures that the necessary foundation is in place to increase the sophistication of your technology. That's how you reduce risk, while accelerating change.



Accelerating Modernization of Your Warehouses

Introducing the Zebra Warehouse Maturity Model - A strategic framework for accelerating modernization

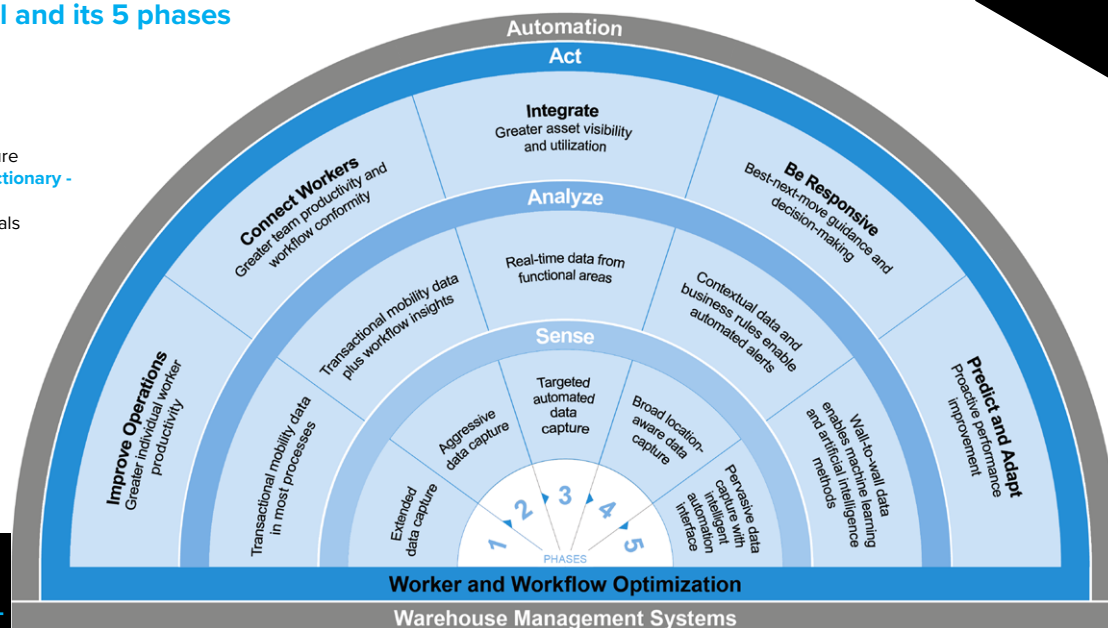
Warehouse modernization starts with optimizing workers and workflows through adopting new technologies and processes, and ideally synchronizing with existing or new warehouse management systems and automation / robotics. Zebra has developed a simple yet highly effective maturity model to help businesses evaluate their situation and prioritize initiatives and changes that will have the biggest impact, as well as longer term changes. Using our five-phase framework, we can help you increase real-time visibility of your business.

How to use the framework

The model breaks down maturity into 5 phases, and across three core disciplines within the warehouse – Sense, Analyze and Act. Use our framework to identify where you are now and what opportunities lie ahead. We can help you create a roadmap to expedite your journey to a more modernised supply chain and warehouse network, or you can leverage it yourselves to quickly evaluate opportunities or challenges.

The model and its 5 phases

Phase 0 -
Basic data capture
Siloed and Reactionary -
Meeting static performance goals



Phase 1

Gain basic control of business operations
Increase productivity with ultra-rugged scanning, reliable printing and Android™ mobile computing.

Phase 2

Optimize the use of mobility
Achieve a best-in-class mobility strategy to optimize operations.

Phase 3

Target use of real-time visibility
Increase compliance and reduce delays with increased operational visibility.

Phase 4

Orchestrate wide-spread use of real-time visibility
Analyze, optimize and sequence real-time, edge data to direct resources and improve operations.

Phase 5

Achieve predictive and adaptive operations
Anticipate and adapt in real time to ever-changing supply chain and customer needs.

What this means for DHL

Using a maturity model is a proven way to quickly determine how effective your existing solutions and approaches are, either for an individual location, or for an entire set of locations and processes for a business unit or region. DHL will be able to identify the most logical next step on any of its warehouse modernization projects.

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Evaluating warehouse maturity

Once you have identified where your warehouses and associated supply chain functions sit on the maturity model (this can vary for different business units, geos and even at the warehouse level), you can use the tips and recommendations built in to the model to develop a prioritised set of short term and longer term changes, and ideally a full roadmap. Zebra's model includes tips at a tactical level e.g. how to manage inventory or how to improve accuracy, and at a more strategic level e.g. how to keep up with market pressures and competitor threats.


Tips to keep up with increasing market pressures


 Reduce average training time from 4.5 weeks³ to days with a dynamic, optimized mobile user experience.


 Decrease non-productive walking by introducing autonomous mobile robots to your mobile workforce.

 Orchestrate operations based on the real-time location of your people, goods and assets.


Manage inventory with the right tech for your environment and workflow


 Replace manual counting with mobile computers and handheld scanners that help workers verify inventory count efficiently, locate discrepancies and update upon manager approval.


 Deploy devices that are built to stand up to environmental conditions such as freezers, humidity or temperature changes to ensure inventory is managed in all areas of your warehouse.

 Utilize real-time data capture, machine learning and artificial intelligence to predict preferred slotting location of incoming inventory for future accessibility.

Tips to improve accuracy from dock to stock

 Invest in supplier management for accurate one-touch or no-touch receipt.

 Match the technology to the workflow and mobilize workers whenever possible.

 Target inbound processes as a place to start utilizing RFID for automated data capture.

What this means for DHL

Once you have assessed the maturity of a specific warehouse or at a higher level the maturity of a business unit, DHL can quickly act with the most logical next initiative or solution. For example a warehouse that is a Phase 2 for taking in stock could consider optimizing inbound processes using RFID for automated data capture.

Evaluating DHL's maturity

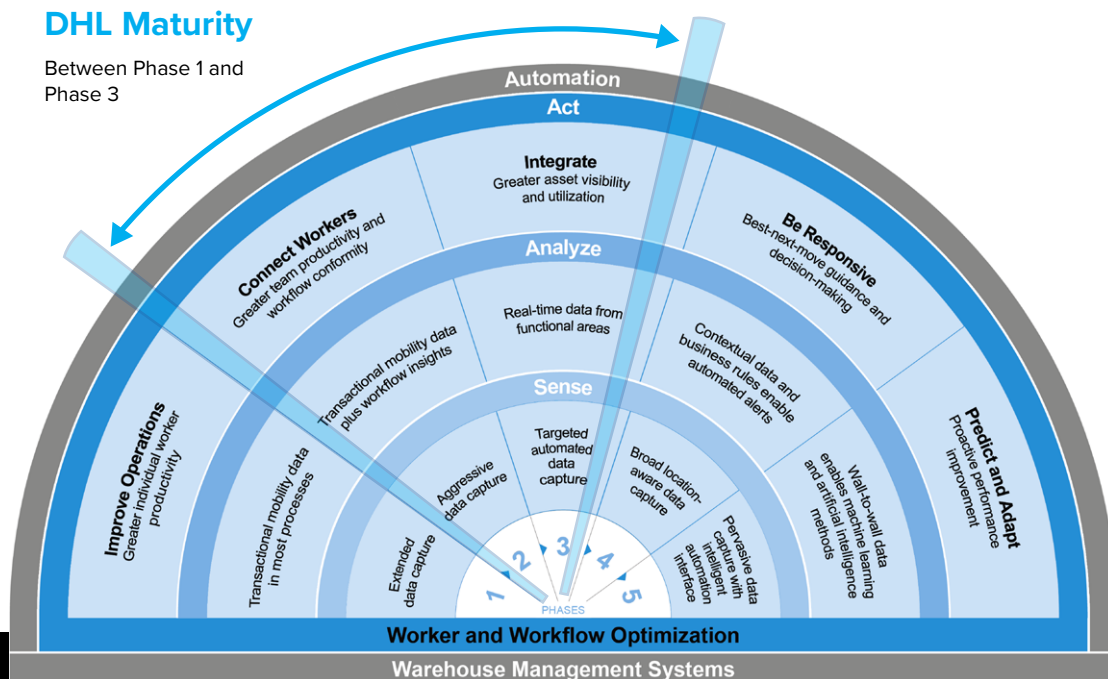
Like most large transport and logistics businesses, DHL is already well on its way to modernising many aspects of its operations. However with such a large network of warehouses, air hubs and distribution locations there is a huge potential for modernization that goes further and happens faster.

As a long term partner to DHL, as well as to many other key players in this space, Zebra has a unique insight into your maturity and where the best opportunities are. We have visibility of existing and recent pilots and projects running across the DHL business, and can share learnings and tips easily from one pilot to the next.

Furthermore, through using our unique warehouse maturity model in collaboration with local and regional DHL business and operational leaders, we can quickly map out plans and roadmaps for additional modernization.

Where is DHL today?

In reality each of DHL's businesses is at a different stage of maturity, and even individual warehouses are more modernised than others. Taking our knowledge of many of your key UK locations, such as the Air Hubs near the major airports, or the hubs for businesses like TK Maxx in Hatfield, we know that automation is being implemented, but other aspects such as the use of wearables to connect workers, smarter packing insights, smart sensing and enhanced data analysis are all areas for potential application.



What this means for DHL

For business units or specific warehouses at Phase 2 maturity, consider how better to connect workers to address inconsistencies in workflow, improve onboarding, speed up key entry and improve communication.

At Phase 3 maturity, focus more on integration and increasing visibility by speeding up processes, improving asset tracking and visibility and replacing legacy systems.



Optimising work in the warehouse

Foundations for a modern warehouse

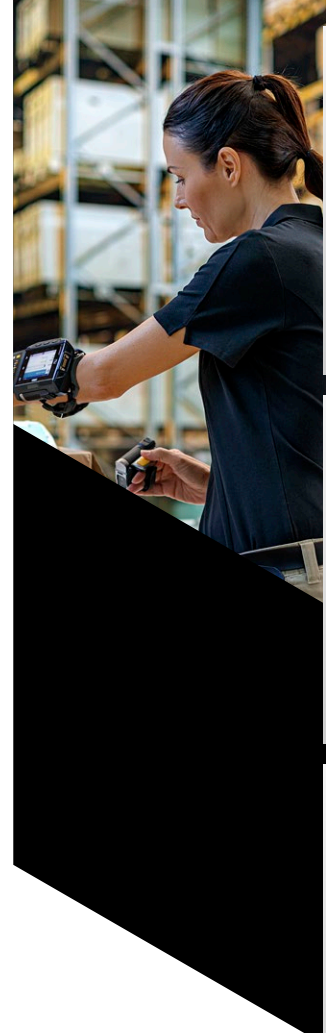
If a location or area of your business is assessed at Phase 1 or 2 maturity then modernization of each warehouse should focus first on improving operations to enable greater individual worker productivity, as well as establishing the IT foundations to support more sophisticated use of technology and data further down the line.

At this stage we recommend the following:

- Consider what you need to achieve with your mobility strategy
- Think about workflows and use cases
- Examine your data capture for efficiencies
- Initiate platforming for simplicity
- Enable IT to support operational demands
- Put security at the forefront

Solutions to improve worker productivity

Improving worker productivity is delivered through deploying the latest hardware for scanning, mobile computing and printing, combined with software that powers the hardware, captures data and integrates with key systems in the warehouse and logistics operation. Zebra offers a class leading portfolio of Android mobile computers, ultra-rugged scanners and thermal printers, powered by Zebra DNA software for mobility, data capture and print to deliver in excess of 10% more productivity than similar competitor devices, along with an IT backbone of support tools, support services (OneCare™), and maintenance packages (eg LifeGuard™ for Android™).



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Optimising work in the warehouse

Connecting workers

With productivity foundations in place, the next priority should be to better connect your workers. At this stage we recommend the following:

- Focus on consistency and accuracy
- Leverage task-specific devices and form factors
- Unify team communication and mobilize managers
- Increase visibility of assets and workflow processes
- Simplify remote device management

Solutions to connect workers

Improving worker connectivity is delivered through deploying the latest wearable technology, team communications and remote workflow/print solutions. Zebra offers an extensive range of wearable technology (FulfilmentEdge™), workforce connect software, mobile printing, mobile data capture and touch optimized devices, which combine to enable greater team productivity and workflow conformity, as well as providing real-time visibility and metrics for the warehouse.



Modernization Tip

Plan for a Smooth Peak Season Device Deployment

Picking operations will increase significantly during busy season. Give IT the tools they need to quickly configure, deploy and manage large fleets of mobile computers, scanners and printers remotely or with a barcode scan. Zebra DNA management tools simplify the peak-season rush.

Zebra FulfilmentEdge™

Powered by Zebra Savanna™

1. Performance improvements measured by a third-party testing laboratory versus competitive devices.
2. Warehousing Vision Study, Zebra Technologies, 2019

As picked orders are delivered to the packing station, workers at the put-wall can effortlessly sort the multiple orders to ensure goods are consolidated into a single carton for shipment to customers.



Mobile Optimization Platform (server)	Application	Input Modalities	Hardware
<p>Zebra Fulfilment Edge™ integrates easily into your existing infrastructure and architecture to provide dynamic real-time workflows, without the need to modify your current WMS or ERP systems.</p>	<p>Provide workers with an intuitive, graphical user interface that provides contextual information of the put-wall and the step-by-step instructions on how to sort each item into customer orders.</p>	<p>Utilize a variety of data capture technologies to drive analytics</p> <ul style="list-style-type: none"> • Barcode • Speech recognition • Location, motion sensing • Radio-frequency Identification 	<p>Workers have their hands free to sort and consolidate multiple picked orders. Use with a complete wearable solution that includes:</p> <ul style="list-style-type: none"> • Wearable mobile computer • Enterprise head-mounted display • Ring scanner for maximum benefit

May not be available in all regions. Contact your local Zebra sales representative or partner.

Making the warehouse smarter

Why make the warehouse smart?

If a location or area of your business is assessed at Phase 2 maturity its time to move to Phase 3, making it smarter through integrating asset visibility and utilization into your warehouse ops. For example, implementing smart, automated data capture can enable the following benefits:

- Inbound inventory can be received more accurately and allocated faster to customer orders.
- Outbound shipments have real-time verification.
- Regulated items have granular data automatically

How to make it smarter

At this stage we recommend the following:

- Identify processes where you lack visibility
- Target assets and functional areas for automated data capture
- Identify points where workflow compliance is critical
- Begin managing by exception to reduce delays and congestion
- Try to see the big picture of your device usage
- Manage technology in multiple locations

Solutions to make the warehouse smarter

Making the warehouse smarter is delivered through deploying a variety of technology and data solutions such as automated data capture, RFID solutions, and motion sensing/ tracking. Zebra offers a comprehensive range of solutions in this area including RAIN RFID and smart devices, MotionWorks™ and SmartPack™ to provide integrated asset visibility and utilization.

Zebra SmartPack™
Powered by Zebra Savanna™

A combination of 3D-sensor technology with an RGB camera, edge-device data capture and analytics increases your ROI. Reduce transportation costs through better management of your trailers and containers. Dynamically balance timelines and costs to achieve higher efficiencies. This cutting-edge technology allows you to capture and view multiple dock doors from one dashboard. You'll see load density, trailer and container fullness, load quality, wall-by-wall build profiles and images of loads in progress.



Sensing Hardware

Mounted at each bay door, a Load Monitoring Unit with a 3D depth sensor camera creates a 3D spatial image of the inside of the trailer as it is loaded, while its RGB camera captures time-stamped photos as the load progresses.

Wearables allow workers to load hands-free and scan each parcel or pallet for improved data analytics.



Integrated 3D Analytics Software

The SmartPack Analytics Software analyzes your operations on the dock in real time. It can also integrate with your systems to capture additional data, such as package weights.

Use this real time analysis available via a centralized dashboard to proactively plan with yard operations.



Professional Services

Simplify deployment with our expertise and support. We'll ensure successful installation of your Load Monitoring Units, provision the software and oversee customization and integration.



Modernization Tip Targeted Use of RFID Digitizes Your Returns Process

Gain full visibility of useable returns to fulfill more orders. Print barcode labels and encode RFID tags with a mobile printer; use handhelds to lead you to those items even before they get re-shelved to expedite fulfillment.



Developing a more responsive warehouse

Why make the warehouse responsive?

If a warehouse location or area of your business is assessed at Phase 3 maturity its time to move to Phase 4, making warehousing and logistics more responsive to real-time events, situations and work levels, and as a result much safer and efficient. The goal at this stage is to deliver best-next-move guidance and decision making based on where things are, where they need to go next and how. Implementing responsive solutions can help elevate visibility to real time status.

How to make it more responsive

At this stage we recommend the following:

- Fully instrument people, inventory and equipment to provide visibility
- Orchestrate all instrumented assets
- Automate what can be automated
- Optimize warehouse flows for cost, speed and efficiency
- Orchestrate warehouse systems with transport, yard and other enterprise systems
- Look beyond the obvious for sources of valuable data analytics

Solutions to make the warehouse more responsive

Making the warehouse more responsive is delivered through maximizing the variety of technology and data solutions that are capturing data and sensing motion through software and automation. Zebra offers several solutions in this area, primarily through its MotionWorks® portfolio (Warehouse, Yard, Asset) as well as VisibilityIQ™ Foresight which helps bring everything together, and FulfillmentEdge™ which can orchestrate human workflows and autonomous material movement with Fetch robots.

Making Warehouses not only productive but also safe

Zebra MotionWorks® Proximity

Powered by Zebra Savanna™

Turn work zones into safe zones without adding new infrastructure. The software-as-a-service (SaaS), cloud-based application leverages Wi-Fi® and Bluetooth® Low Energy (BLE) in Zebra mobile computing devices to help you reinforce safety protocols. Alert workers through their devices when they're too close to each other. Give authorized managers insight into workers' distancing activities that need correcting.



Proximity Alerts

Alert and Prevent

Zebra's unique algorithm triggers an alert after 60 seconds of close proximity to another worker. This minimizes false alerts, while allowing workers to correct their distance.



Proximity Events

Report & Enforce

Generate proximity events whenever an employee violates the social distance for more than five minutes. Use the event dashboard to spot patterns and enforce compliance.



Contact Tracing

Identify & Isolate

Our web-based contact tracing report gives you a full and detailed view of employee contacts, number of interactions, duration and timestamps of each event.



Device Disinfection

Sanitize & Protect

At the end of each shift, the device's screen will indicate that it requires cleaning. This protects workers from using unsanitary devices on the next shift.



Modernization Tip

Extend Visibility beyond the Four Walls

Integrate your yard management systems into your entire warehouse management ecosystem. Zebra MotionWorks® Yard orchestrates and communicates the right dock moves in conjunction with internal activities.

Developing a more predictive warehouse

Why make the warehouse predictive?

If your warehouses are already sophisticated in terms of smart technology, data capture and sensing, the final step is to move from being reactive to predictive. Applying AI and innovative algorithms can drastically enhance the sustainability and effectiveness of supply chains by driving businesses to collaborate.

AI enables a warehouse or business area to switch from simply reacting to what has or is happening, to doing things proactively. This helps you stay one step ahead of your customer's needs, as well as your competitor's capabilities to serve the same customers.

How to make it predictive

Delivering predictive insights is not easy. Companies must go wall to wall, and beyond, using data from across the enterprise, and working hard to turn that data into insight that can be used to make valid predictions on what may happen next. At this stage we recommend the following:

- Integrating physical operations with enterprise systems
- Include real-time data from outside the warehouse's four walls
- Use artificial intelligence and machine learning to optimize workflows, resource and labor planning, facility configuration

Solutions to make the warehouse predictive

Making the warehouse predictive requires the deployment of intelligent software, including AI and advanced analytics. Zebra is uniquely positioned to support companies in the transport and logistics sector with a range of professional services and data solutions that makes the most of data captured in the warehouse, as well as elsewhere in your data ecosystem. Data solutions are powered by Zebra Savanna™ which transforms edge data and events into actionable insights, through a blend of APIs, analytics and AI.



Modernization Tip

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Zebra Data Services
Powered by Zebra Savanna™

Transforms edge data and events into actionable insights

- Streamline development, simplify data access and drive interoperability with easy-to-consume APIs and developer tools that empower you to build secure, scalable digital services with ease and speed
- Aggregate and analyze data from multiple edge devices to create a wall-to-wall data-powered environment that provides real-time guidance and insights
- Quickly leverage APIs such as device health, data intelligence, barcode generator and blockchain traceability to accelerate your solution development



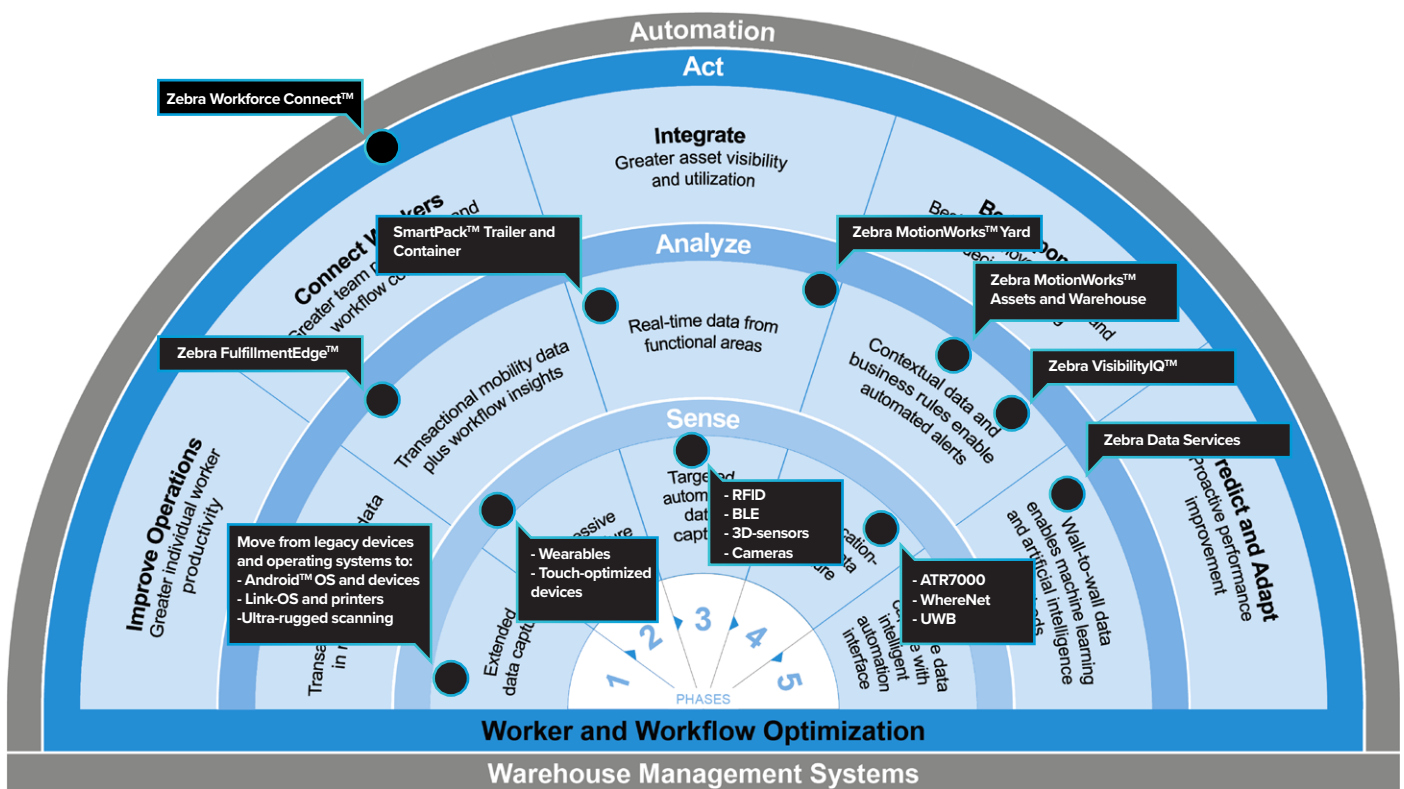
Powered by Zebra Savanna™ means data integrity you can trust to proactively optimize operations

- Access to machine and transactional data from Zebra's edge devices
- Historic data and access to data analytics to make informed decisions

Summary

DHL has identified digitalization as the foundation to its long term success. But it must deliver on digitalization quickly if it stay ahead of its traditional and emerging competition.

This report has outlined how DHL can accelerate digitalization and modernise the warehouse and wider delivery network. Through using Zebra’s unique methodology to assess your warehouse maturity and identify the best opportunities to modernise, DHL can improve employee experience and end customer experience, as well as deliver significant cost savings and operational efficiencies. Zebra has a complete range of solutions throughout the maturity phases, allowing DHL to evaluate different options for different business units (Express, Supply Chain, Global Freight Forwarding) or even for specific individual warehouses or hubs. Key solutions that help you become more efficient, smarter, responsive and predictive are shown on the summary below, and are available to pilot and rollout today.



What next?

As your trusted partner, we hope you have found this report useful, and welcome the opportunity to continue our partnership through co-innovation, workshops, assessments and new solutions.

To learn more or initiate a maturity assessment for your area of focus, please connect with your Zebra/DHL account team or Zebra solution experts.



Delivering on Digitalization

The possibilities are endless with Zebra

From gaining basic control of your operations to achieving proactive predictability and agility, Zebra is your partner to guide you on your warehouse modernization journey.

From inbound operations to outbound fulfillment, we have the complete and comprehensive portfolio to improve accuracy, productivity and worker safety, while keeping pace with a rapidly evolving market.

This report has been prepared exclusively for DHL, and uses information available in the public domain, combined with exclusive information and thinking from Zebra Technologies. To discuss the contents of this report, or for a general discussion on how Zebra can support DHL on its quest to digitalise, please connect with the Zebra account team member who shared this report with you, or via our website: www.zebra.com

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