UNLOCKING THE FULL POWER OF THE E-COMMERCE BOOM

DIGI X E-COMMERCE

#DIGIFRIDAYS
#DIGIFRIDAYS

DIGI x ESG
June 2\textsuperscript{nd}
@15.00 CEST

DIGI x E-commerce
June 16\textsuperscript{th}
@15.00 CEST

DIGI x Automation
June 9\textsuperscript{th}
@15.00 CEST

DIGI x CX
June 23\textsuperscript{rd}
@15.00 CEST
Digi x E-commerce
Unlocking the full power of the e-commerce boom

Digital Experience at DHL eCommerce Solutions

Seizing the re-commerce opportunities through digitalization

Cutting through customs with Artificial Intelligence

Konstantin Peris
SVP Digital Customer Interactions
DHL Customer Solutions & Innovations

Ralf Pankotsch
VP IT Systems
DHL eCommerce Solutions

Nabil Malouli
SVP Global E-commerce and Returns
DHL Supply Chain

Thorsten Kranz
Head of Data Science Implementation
DPDHL Group
UNLOCKING THE FULL POWER OF THE E-COMMERCE BOOM

DIGI X E-COMMERCE

KONSTANTIN PERIS
SVP DIGITAL CUSTOMER INTERACTIONS
DHL CUSTOMER SOLUTIONS & INNOVATIONS
DHL Customer Solutions and Innovation (CSI) manages the Top-100 customers of the group and digital customer interactions at group-level

Konstantin Peris
SVP Digital Customer Interactions

- Happy Customers
- Profitable Growth
- Digital Shine

Best-in-class cross-divisional account management

Deep sector expertise

Integrated approach

Digital Customer Interactions

Customer-centric & industry-leading innovation
Four important trends that will shape the industry going forward

GLOBALIZATION
E-COMMERCE
DIGITALIZATION
SUSTAINABILITY
E-commerce is here to stay and a positive logistics experience is key

78% of consumers unlikely to buy again from a brand after negative delivery experience.

Source: Auctane

+48%
DHL Express B2C Shipments/Day
Q1 2023 vs. Q1 2019

+74%
DHL eCommerce Solutions B2C Volumes Europe
Q1 2023 vs. Q1 2019

+21%
DHL Parcel Germany Volumes
Q1 2023 vs. Q1 2019
What does our offering along e-commerce logistics value chain look like?

ENABLING E-COMMERCE THROUGHOUT THE ENTIRE LOGISTICS VALUE CHAIN

Inbound  Fulfillment  Delivery  Return
Where digitalization improves our e-commerce offering

- ... (via Apps)
- Online Quotation (e.g., myDHLi)
- Inbound
- Fulfillment
- Data Analytics (incl. wearable devices)
- Robotics
- Duty & Tax Calculator
- Mobile Apps (e.g., Post&DHL)
- Customer portals (e.g., Asset Tracking, Monitoring)
- IoT
- Online Tracking
- On Demand Delivery
- Delivery
- Return
- Re-Commerce
- 3PVs
- APIs
- ChatBot (incl. WhatsApp)
- DHL.com
- UTAPI
- RPA (Process Automation)
- Digital Products & Services
- E-commerce value chain
In the e-commerce ecosystem, APIs are “hidden heroes” (invisible connectors between all parties)

- **Customers / Shippers**
  - myDHLi
  - e.g., customer portals

- **Partners**
  - e.g., Webshop software, solution integrators, ERPs

- **Consumers / Recipients**
  - e.g., Apps, tracking on DHL.com

DigiFridays | Deutsche Post DHL Group Investor Relations | June 2023
The concrete e-commerce set up of each customer is unique

DHL APIs allow quick, secure and seamless data transfer
Our efforts in digitalization improve our customers’ success in e-commerce

Digital Experience at DHL eCommerce Solutions
Ralf Pankotsch

Seizing the re-commerce opportunities through digitalization
Nabil Malouli

Cutting through customs with Artificial Intelligence
Thorsten Kranz
DIGITAL EXPERIENCE AT DHL ECOMMERCE SOLUTIONS

ACHIEVING LIMITLESS GROWTH IN A WORLD POWERED BY E-COMMERCE

RALF PANKOTSCH
VP IT SYSTEMS
DHL ECOMMERCE SOLUTIONS
eCommerce Solutions provides World-Class Parcel Logistics Services mainly for e-tailers in B2B and B2C space around the globe

<table>
<thead>
<tr>
<th>Core business</th>
<th>Domestic Last Mile</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• In selected countries outside of Germany</td>
</tr>
<tr>
<td></td>
<td>• This includes Europe, US and selected emerging markets in Asia Pacific, incl. India</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Non-TDI Cross-border</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Commercial capabilities – primarily to/from and intra-Europe</td>
</tr>
<tr>
<td></td>
<td>• Parcel Connect in Europe a strong and growing platform as basis for future growth</td>
</tr>
</tbody>
</table>

*non-Time Definite International Parcel delivery

DigiFridays | Deutsche Post DHL Group Investor Relations | June 2023
Data as a product

Global DeCS Data-Lake technology
- Microsoft Azure & Databricks
- PowerBI Reporting Suite
- Datarobot advanced analytics
- Near future: Generative AI (ChatGPT, MS-Fabric) exposed via DPDHL AI Hub

Dashboards & Reports
- Customer Carbon Reporting
- Global Quality Reporting
- Volume Reporting & Forecasting
Advanced Pricing Tool

Technology

- e-cloud based SaaS Platform “Open Pricer”
- Integration in Salesforce.com & SAP
- API based rating engine

Core Features (examples)

- Fair Price Benchmarking using modern machine learning
- Profitability Analysis
- Customer Segment Analysis supported by AI
- Sales KPI Monitoring
Digital Products in operations and last-mile delivery

Technology

• React frontend
• Java / Scala backend
• Kafka event processing

Core Features (examples)

• What3Words integration
• Delivery time prediction
• Pick-up ordering
• Shipment tracking
Design of new products & services
BlueDart Hi-Tech device exchange

Technology

• FarEye delivery app
• iOS & Android diagnostic integrated
• Razorpay gateway integrated

Core Features (examples)

• Delivery & exchange of Mobile Devices
• Multiple big brands integrated
• Technical checks at doorstep
• Payment & returns handling
BlueDart Express provides delivery and exchange service for high-end mobile devices at the doorstep

**Step 1**
- Consumer buys new device online incl. trade in option

**Step 2**
- BlueDart Customer Service arranges delivery date

**Step 3**
- Technical & functional checks
- Commercial offer

**Step 4**
- Handout new device
- Handle payment
- Return old device
SEIZING THE RE-COMMERCE OPPORTUNITIES THROUGH DIGITALIZATION

GREAT FOR THE PLANET. GREAT FOR THE WALLET.

NABIL MALOULI
SVP GLOBAL E-COMMERCE & RETURNS
DHL SUPPLY CHAIN
Re-commerce market is booming!
Projected to reach $350bn by 2027!
So are the supply chain activities!!

Reverse logistics market for re-commerce is expected to reach $24bn by 2027, presenting a very attractive opportunity*

*Sources: DHL Consulting Research, Statista, Straits Research
Why re-commerce presents a great opportunity for companies

Sustainability, consumer satisfaction, margin erosion are all key elements!

**Sustainability & Circularity**
88 companies launched resale programs last 12 months

**Consumer Satisfaction**
Returns process is linked to consumer refund

**Margin Erosion**
Destroy less, resell better, resell more

**Unsolved Problem**
Double touch and long recovery times

**Regulations**
Rise of regulations such as Waste Framework Directive

**High Cost**
Additional logistics costs to return a product
The reverse logistics journey is complex

To make re-commerce viable, financially and operationally, a sophisticated and effective end-to-end reverse logistics supply chain is required.
How is DHL helping customers?

End-to-end Reverse Logistics solution at scale through best-in-class technology

PROVEN BENEFITS

- Management of large-scale return volume (i.e.: +25M/Year per site)
- +30% gains in productivity in return processing
- Reduction of destroyed products by 20%

Traceability & visibility through one software solution

State of the art return functionalities & features

Ecosystem of integration with re-commerce sales channels
How is DHL helping customers?

Automation enables faster processing and enhancements of productivity

Deployment of automation tools e.g. assisted picking robots (Locus robotics)

Automation increases speed of processing to reduce inventory carrying cost

PROVEN BENEFITS

• Faster “available to sell” status through re-fulfillment and shipping
• 25% cost reductions through automation
• Synergies through activities under one single operation with one inventory pool
We leverage technologies to help brands & retailers unlock their re-commerce

Customer testimony
“More sales from positive returns experience in a Market Strategic and Cost-effective Location, leveraging Efficient and Innovative approach”

SVP Global Logistics & Distribution
Global Leading Sportswear Brand

Speed & Efficiency
+97% dock to stock within 24 hours

Operational execution at scale
Managing dedicated regional return centers processing more than 125M units per year globally

Omnichannel reverse logistics
Ability to process B2C & B2B into the same operation

End-to-end supply chain solution
Enabling the management of return portal, return shipping & return fulfillment and resale
CUTTING THROUGH CUSTOMS WITH AI

PRODUCT CLASSIFICATION TOOL

THORSTEN KRANZ
HEAD OF DATA SCIENCE IMPLEMENTATION
DPDHL GROUP
Connecting People, Improving Lives ACROSS BORDERS

A connected world with barriers

Global trade is essential. Existing and growing customs requirements are complex.

Customs processes are expensive

The complexity and scale of customs processes are a challenge for our network and imply significant costs. Efficient mitigation is a critical success factor.

Best-in-class internal solution

Providing leading edge solutions for customs process automation. Accurate, reliable and compliant.

AI-based Product Classification Tool (PCT) predicts customs codes for cross-border shipments and helps automating customs clearance processes.
With the rise of x-border e-commerce, PCT is a great support for our customs clearance processes

**Acceleration of processes**
Product Classification API accelerated customs clearance by automatically providing customs codes

**Supporting Customs Audit**
Product Classification models trained on holistic DPDHL customs data assets also used during customs audit

**Improve Master Data Quality**
Product Classification Tool recommends potential customs codes to customers improving data for x-border shipments
We are leveraging internal data sources to provide tailored, highly accurate solutions that can be plugged into existing IT landscapes.
PCT is a cross-divisional solution used by EXP, DeCS, P&P and DGF

**Deployed across the Group**
Productive use in all Business Units; supporting our GoTrade initiative. Global, regional and local standards supported.

**Automation at Scale**
Processing millions of shipments every week. Average response time of 50ms.

**Challenged, but unmatched**
Regular benchmarks with external providers prove best-in-class solution. Powered by our data asset of 20mn+ unique product descriptions.
Cross-divisional solution: Automation at scale

- **DHL Express**
  Automated classification of import shipments either with global or local standard

- **DHL eCommerce Solutions**
  Automated classification of EU import shipment

- **Post & Parcel Germany**
  Automated classification of German import letter ("Post International")

- **DHL Global Forwarding**
  Monthly customs audit through rule-based validations with machine learning based predictions
We are supporting SMEs in emerging economies through GoTrade

**Trade Facilitation**

• Connecting People. Improving Lives. In a sustainable way.

**Help Growing Together**

• When trade grows, we grow. Through proactively steering trade environments, we support market growth.

**Win-Win**

• Countries benefit from DPDHL’s knowledge & expertise while future customers are exposed to our service capabilities.

---

**Providing PCT as an interactive tool for GoTrade**

1. Enter product details
2. AI-based recommendations
3. Interactive selection of final customs code
PCT benefits and outcomes

- **Reduce cost**
  With a fully automated process for AI-based assigning customs codes the cost for manual labour can be reduced.

- **Customer satisfaction**
  Fully landed cost can be displayed before checkout. Shipments are received faster.

- **Lower CO2e footprint**
  Correct customs codes reduce unnecessary shipping and vehicle usage caused by returns.

- **Easy to implement**
  The API service can be easily integrated into existing systems.

- **Reliable service**
  Automated cloud-based solution makes sure that data and services are available and accessible 24x7. Autoscaling enables usage for millions of requests.

- **Faster delivery time**
  Goods will clear customs faster and can be delivered to the recipient in time.
UNLOCKING THE FULL POWER OF THE E-COMMERCE BOOM

DIGI X E-COMMERCE

#DIGIFRIDAYS