

SMARTER SHIPMENT DATA AUTOMATION

FLOWCHECK



SCAN ME

Project Background

FlowCheck, developed with Intel and DHL, automates shipment data verification across countries and brokers. It replaces manual checks with a modular pipeline that validates shipments, flags missing entries, and consolidates reports into DHL's Power BI dashboards.

Built on Microsoft 365 and Python, FlowCheck ensures accuracy and scalability. Users can configure new pipelines for additional countries or brokers without coding, making it highly adaptable.

By automating repetitive tasks and enabling real-time reporting, FlowCheck cuts processing from days to hours, improves data integrity, and supports scalable logistics operations.

Key Features

- **Automated Data Validation:** Validates shipment data against DHL's reporting standards, identifies missing House Air Waybill (HAWB) entries, and ensures consistency across countries.
- **Dynamic Process Customization:** Users can create custom validation pipelines for new brokers or countries directly through the UI, enabling scalability without redeployment.
- **Interactive KPI Dashboards:** Generates pivot tables and KPI summaries automatically, with live updates to Power BI dashboards via SharePoint and Power Automate.
- **Error Detection & Logging:** Tracks validation steps, highlights errors, and logs process results for transparency and troubleshooting.

Motivation

Global logistics relies on accurate, timely data, but manual verification across countries and brokers is slow, resource-heavy, and error-prone. Even one missing record can distort KPIs and delay decisions.

FlowCheck addresses this by automating shipment data checks with Microsoft's ecosystem and Intel/DHL's expertise. The result is a scalable framework that boosts accuracy today while paving the way for future smart logistics solutions.

System Architecture

