

## Flink Hub Analytics & Forecast Dashboard



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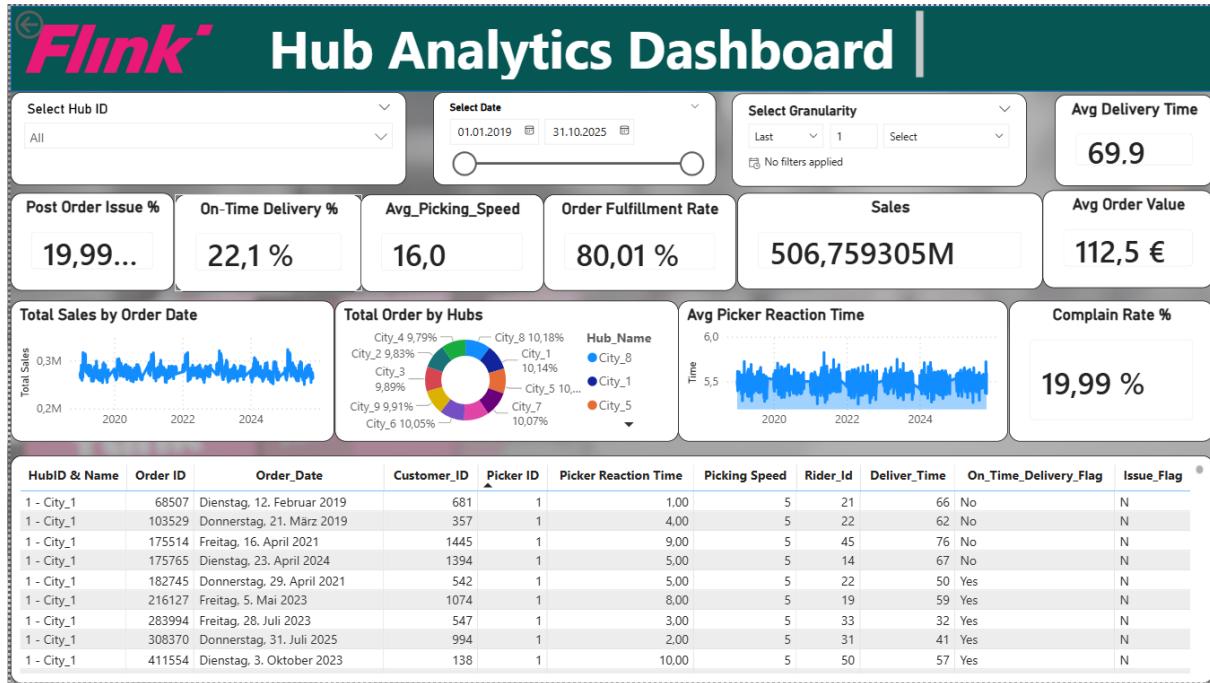
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## 1. Overview

The Hub Analytics Dashboard provides an end-to-end view of operational performance across Flink delivery hubs. It helps monitor service quality, sales, and process efficiency, and supports data-driven decisions at hub and city level.

## Key objectives:

- Track order fulfillment performance and delivery service levels.
- Identify bottlenecks in picking and delivery operations.
- Analyse sales trends by date and by hub for strategic planning.



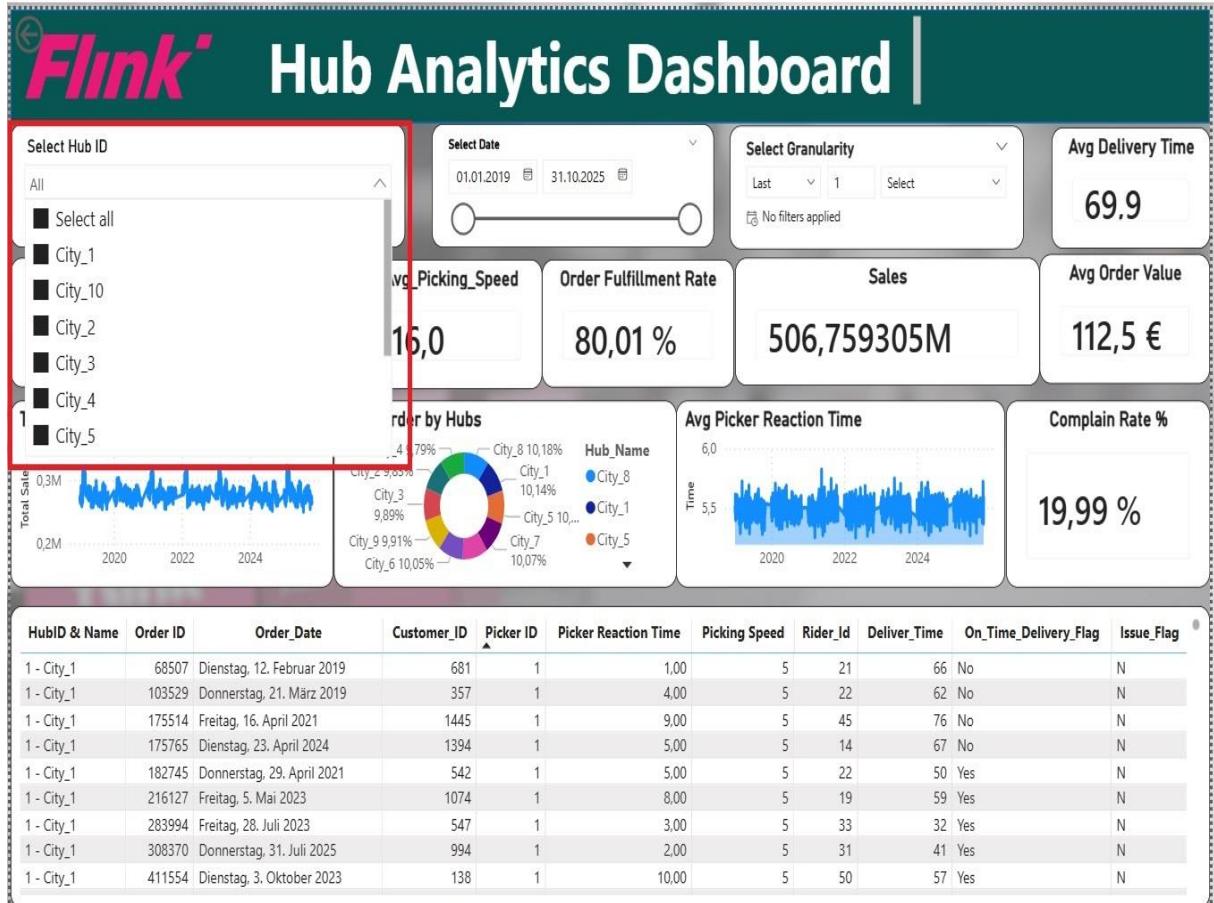
## 2. Dashboard Filters

To enable flexible analysis, the dashboard currently includes three main filters:

### 2.1 Hub ID selector

- Allows selection of a specific hub (e.g., City\_1, City\_2, ...) or “All” hubs.

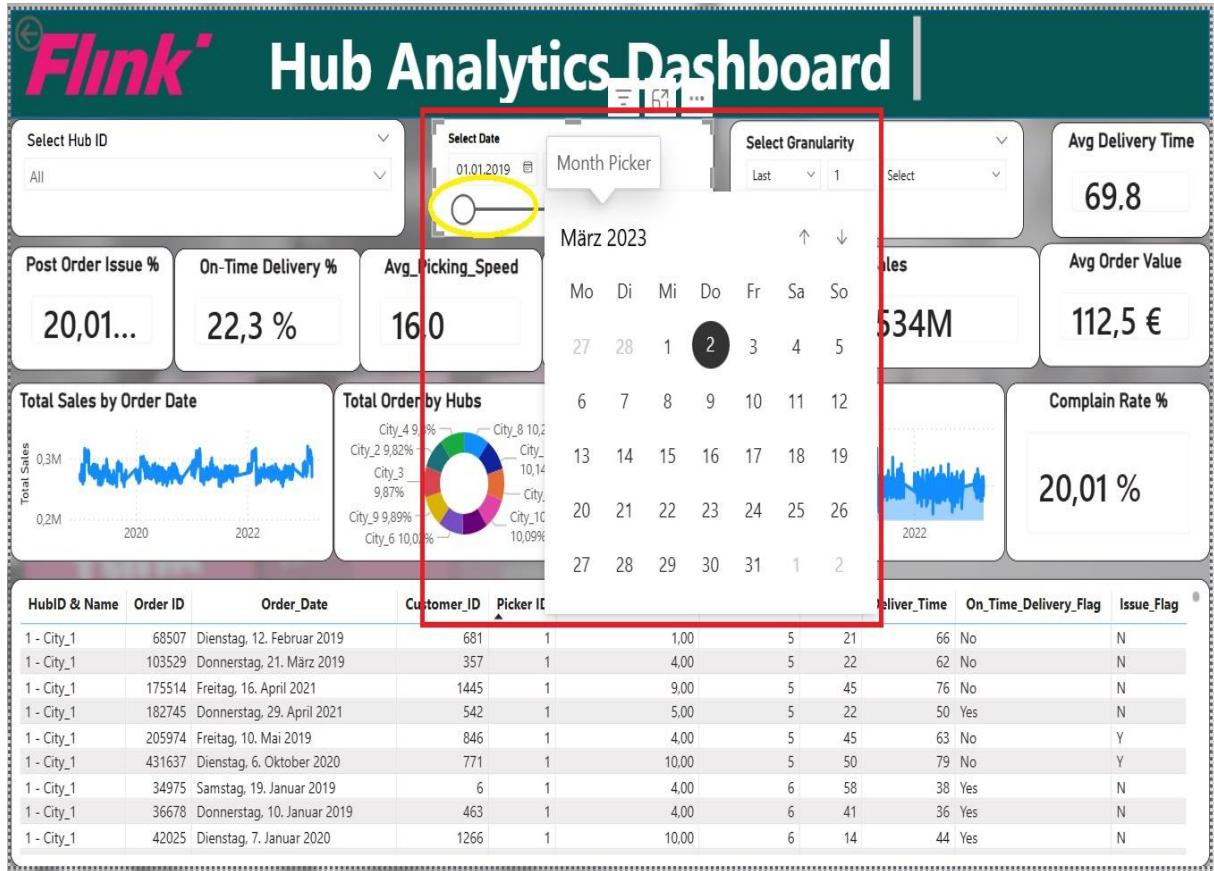
- Used to compare performance between locations and to focus on underperforming hubs.



## 2.2 Date range filter

- Enables analysis for custom periods from 2019 to 2025 (and beyond, based on data) with Slicer.

- Useful for zooming into specific months, events, or campaigns to see their operational impact.

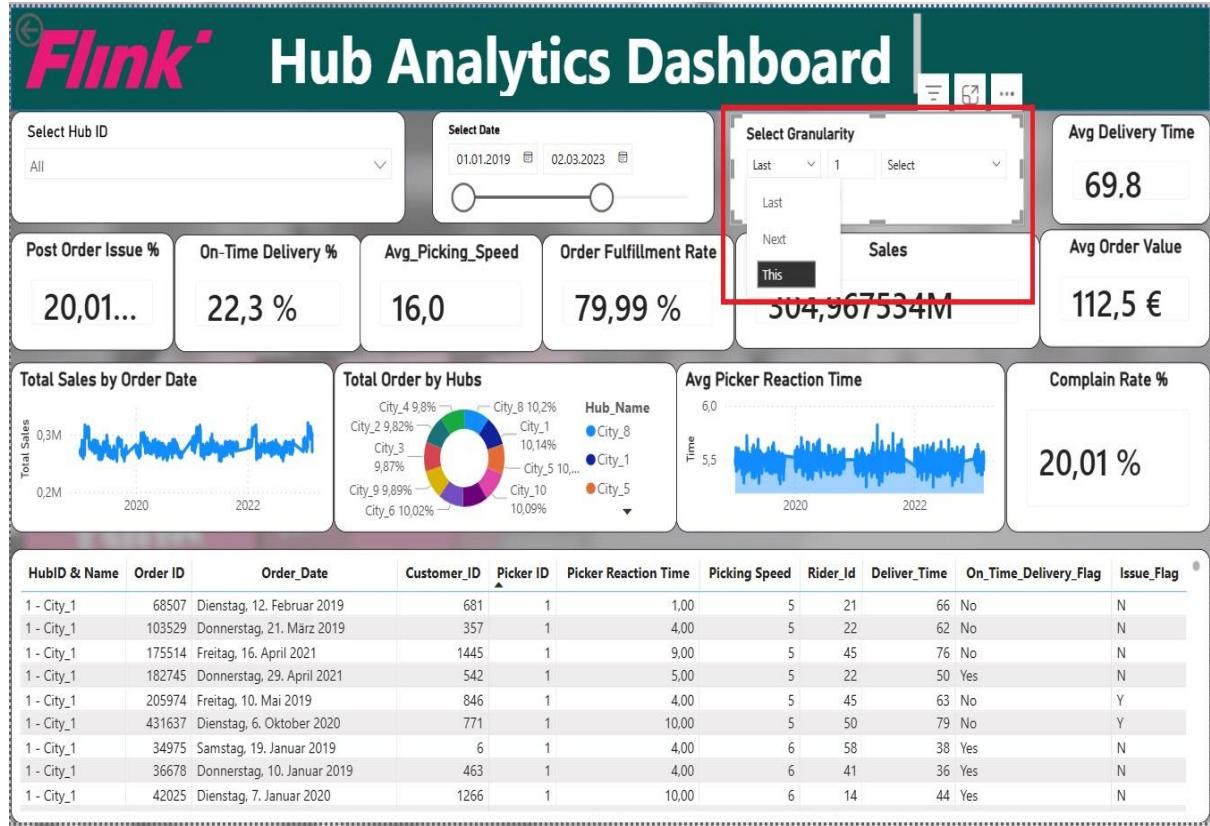


## 2.3 Granularity selector

- Lets the user choose different time grains (for example: daily, weekly, monthly).
- Supports both high-level trend analysis and detailed day-to-day monitoring.

These filters work together so business users can quickly answer questions like:

- “How did City\_3 perform in Q1 2024?”
- “What happened to delivery time in peak seasons?”



### 3. Hub Analytics: KPIs and Visuals

The Hub Analytics section focuses on operational KPIs and order-level details.

#### Main KPIs

Typical KPIs displayed on the top cards of the dashboard include:

- **Post Order Issue % :-** Share of orders that experienced issues after placement (e.g., cancellations, address problems).
- **On-Time Delivery %:-** Percentage of orders delivered within the promised time window.
- **Average Picking Speed:-** Average number of items/orders picked per picker in a given period.
- **Order Fulfillment Rate:-** Ratio of successfully fulfilled orders to total orders placed.

- **Sales**:- Total sales value over the selected period.
- **Average Delivery Time**:- Average time taken from order creation to final delivery.
- **Average Order Value (AOV)**:- Average revenue per order.
- **Complain Rate %**:- Percentage of orders resulting in a customer complaint.
- **Total Sales by Order Date (time series)**:- Shows the evolution of daily sales over multiple years. Helps detect seasonality, growth, and sudden drops or spikes.
- **Total Order by Hubs (donut chart)**:- Breaks down order volume by hub / city. Useful for identifying high-volume hubs and balancing capacity.
- **Average Picker Reaction Time (time series)**:- Tracks how quickly pickers start processing an order after it is received. Helps operations teams monitor process responsiveness and staffing efficiency.

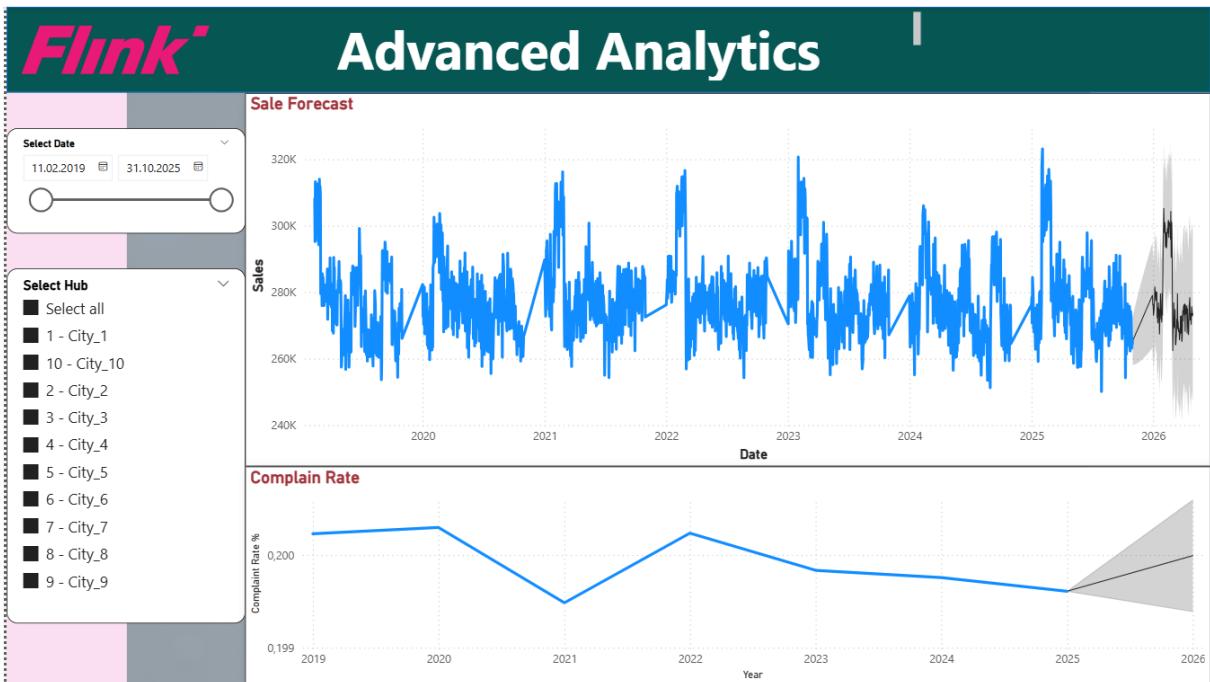
**These KPIs give a quick health check of each hub's performance and highlight areas needing improvement, such as long delivery times or high complaint rates.**

#### **Detailed Order Table:**

- Includes fields such as HubID & Name, Order ID, Order Date, Customer ID, Picker ID, Picker Reaction Time, Picking Speed, Rider ID, Delivery Time, On-Time Delivery Flag, and Issue Flag.
- Supports root-cause analysis and allows drilling from KPI level down to individual orders.

## **4. Advanced Analytics: Sales Forecast & Complaints**

The Advanced Analytics page focuses on forecasting and risk monitoring to support planning.



## 4.1 Sales Forecast

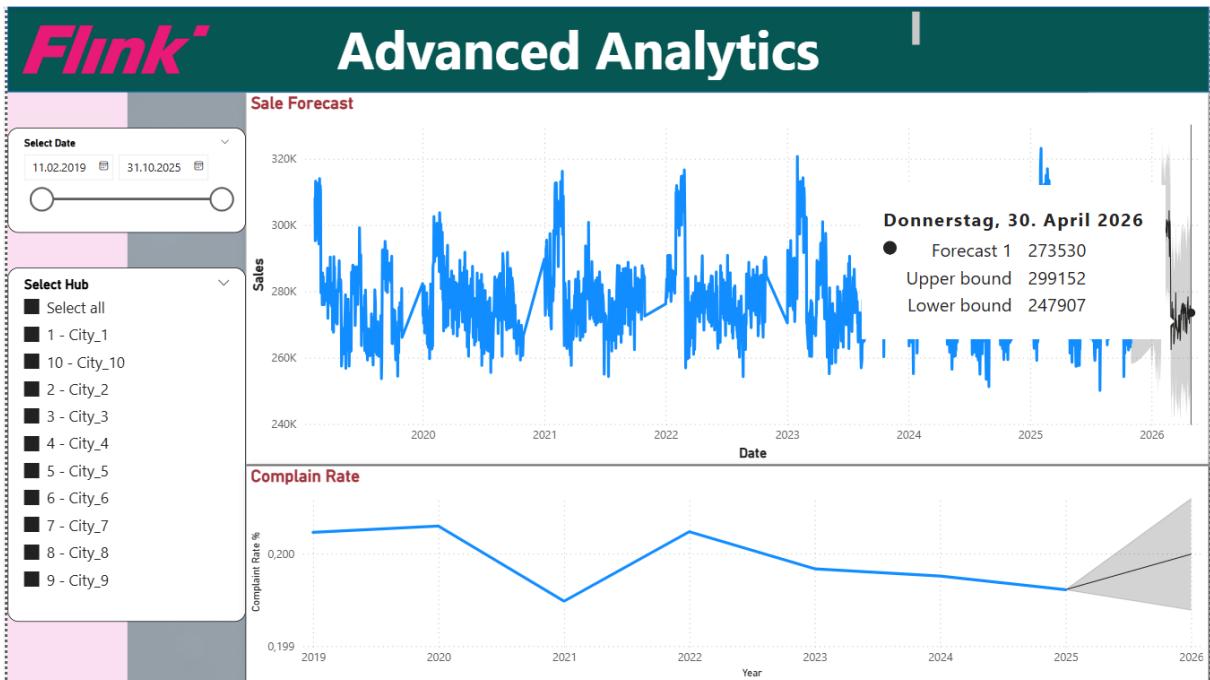
The sales forecast visual uses historical daily sales to predict future demand for upcoming periods (e.g., up to April 2026 in the screenshot).

**The forecast chart displays:**

- Forecast line - Expected sales for each future date.
- Upper and lower bounds - Confidence intervals showing potential variation around the forecast.

**Business use cases:**

- Capacity planning for riders, pickers, and warehouse operations.
- Inventory planning for high-demand periods (weekends, holidays, campaigns).
- Revenue planning and target setting at hub and regional level.



## 4.2 Complaint Rate Trend and Projection

The complaint rate line chart summarises yearly complaint percentages and can project these into the future using a trend line or forecast.

This helps:

- Monitor the effectiveness of service quality initiatives.
- Identify years or periods where complaint rates increased and investigate underlying causes.
- Set realistic targets for complaint reduction.

## 5. How This Dashboard Can Be Used

Some suggested use cases for stakeholders:

### 5.1 Operations Manager

- Monitor daily KPIs (on-time delivery, fulfillment rate, picking speed).
- Detect operational issues early (e.g., rising delivery time in a specific hub).
- Take corrective actions such as reallocating staff or adjusting cut-off times.

### 5.2 City / Hub Manager

- Compare own hub against others in terms of sales, delivery performance, and complaint rate.
- Drill down to specific dates and orders to understand recurring issues.
- Use forecasted sales to plan staffing and shift schedules.

### **5.3 Business / Strategy Team**

- Use long-term sales trends and forecasts to evaluate growth and plan expansions.
- Identify high-value hubs and periods for marketing campaigns.
- Track the impact of strategic decisions on customer complaints and service levels over time.

## **6. Possible Future Enhancements**

- Adding customer segmentation (new vs. returning customers, high-value cohorts).
- Including cost-related KPIs (delivery cost per order, cost per hub) for profitability views.
- Introducing SLA-based alerting or conditional formatting (e.g., highlight hubs with on-time delivery below a threshold).
- Adding more advanced models for forecasting (e.g., separate forecasts per hub or per category).

## **7. Link to view Dashboard**

[FlinkDashboard.pbix](#)