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Chain Optimization and
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Lufthansa Cargo AG

SUSTAINABLE SUPPLY CHAIN MANAGEMENT
@ LUFTHANSA CARGO





Agenda

- 1 Facts & Figures: Lufthansa Cargo AG
- 2 Project Overview – Supply Chain Management
- 3 Production Planning with Quintiq Software
- 4 Global Planning & Control (GPC)

Let's start with a quiz:





Facts & Figures: Lufthansa Cargo

Facts and figures – Lufthansa Cargo Network



300+

Lufthansa Cargo stations worldwide

3 million

tons of freight handled (8,200 tons a day)

80 %

of all shipments pass through FRA

Facts and figures – Fleet structure



18

Boeing 777F

480

Bellies

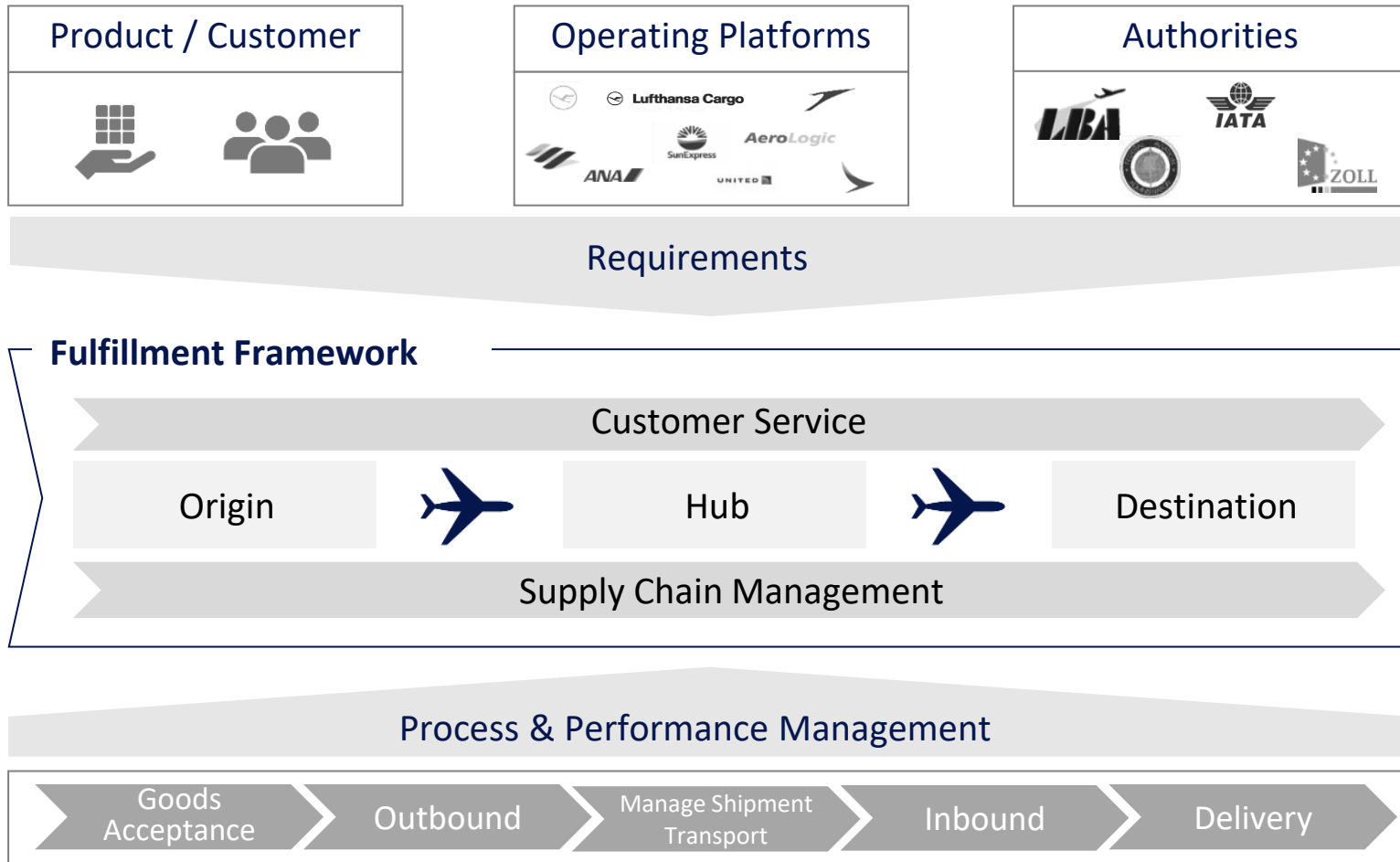
2,500

Road feeder service trucks

Status: November 2021

Global Fulfillment Management

We design, plan and steer the entire shipment flow





Project Overview



Global Fulfillment Development – Current project examples



Continuous improvement of single local processes down to shopfloor level



Overarching optimization of end-to-end value stream & enabling digital fulfillment



Shaping the future of our production framework & setting new industry standards



Customer Needs & Product Features

Lean Journeys



Technologies & Trends

Barcode Scanner Revamp / Light weight Containers



Requirements from Authorities

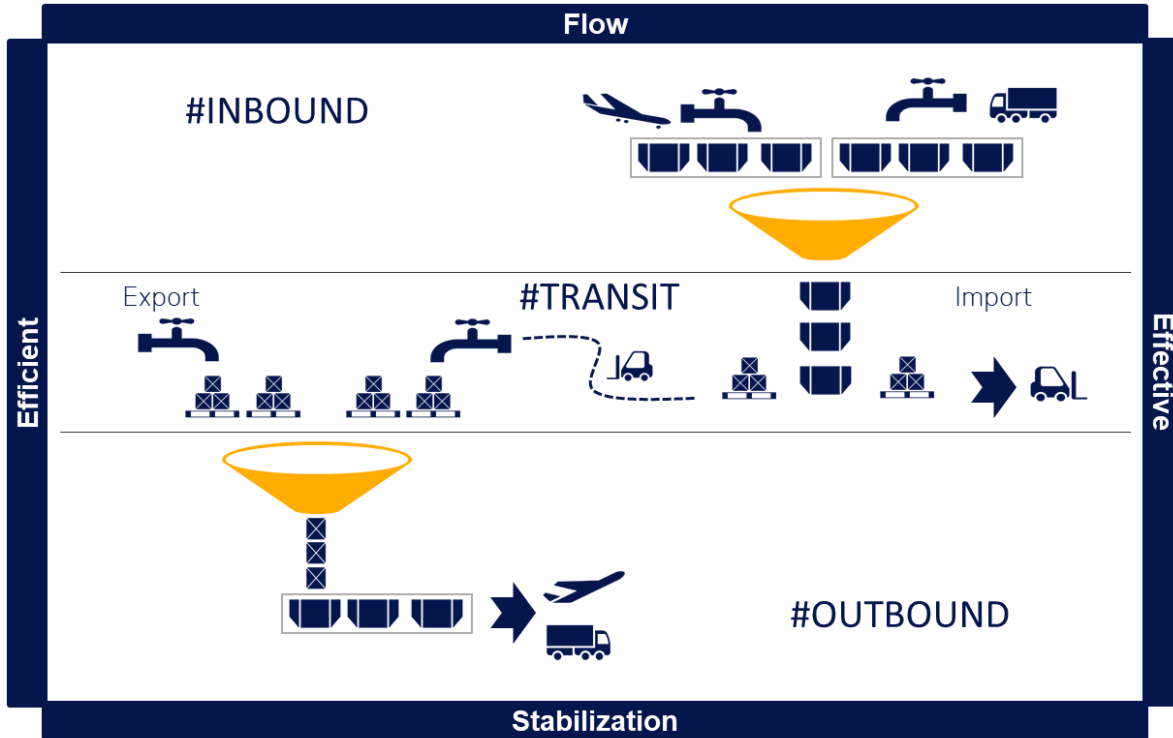




Production Planning with Quintiq Software



Goal of Quintiq Production Planning and Control: Optimize flow in the transit process



- Decouple **production peaks** from the flight plan in order to create a steady and manageable workload
- Reduction in total **processing time** & improvement of **quality**
- **Reduction of manual effort** through automation and digitization
- **Transparency** of workload, available resources and utilization

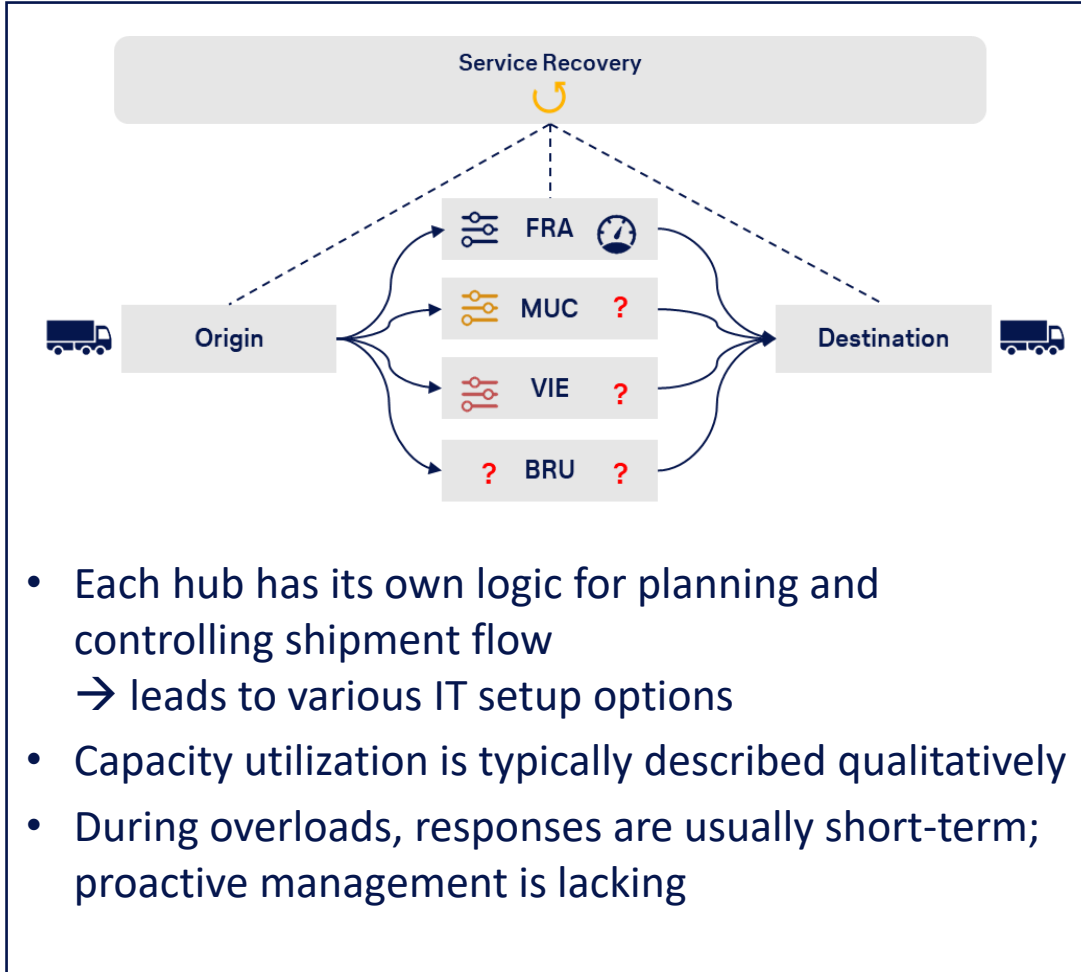


Global Planning & Control (GPC)

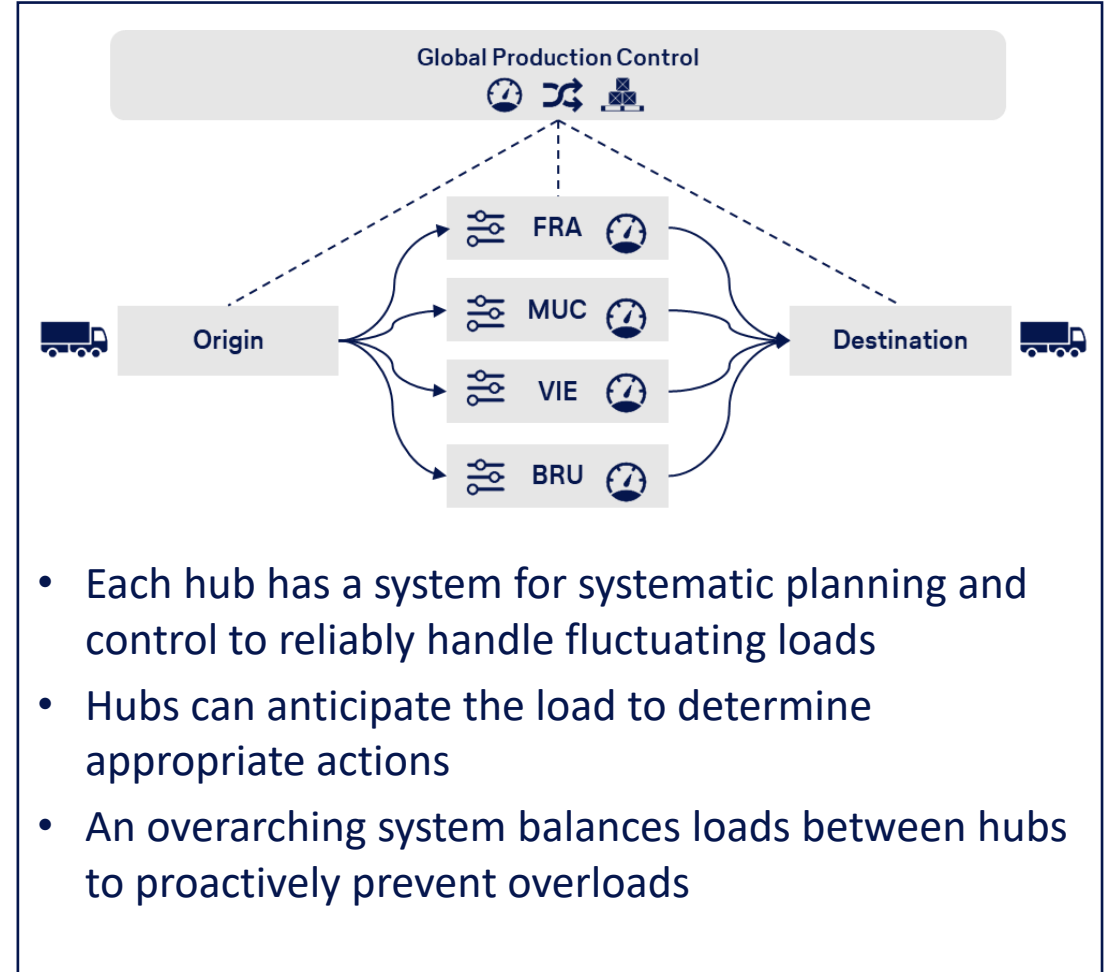


Improving planning and control capabilities at the hubs is crucial for overall planning and management

Status Quo



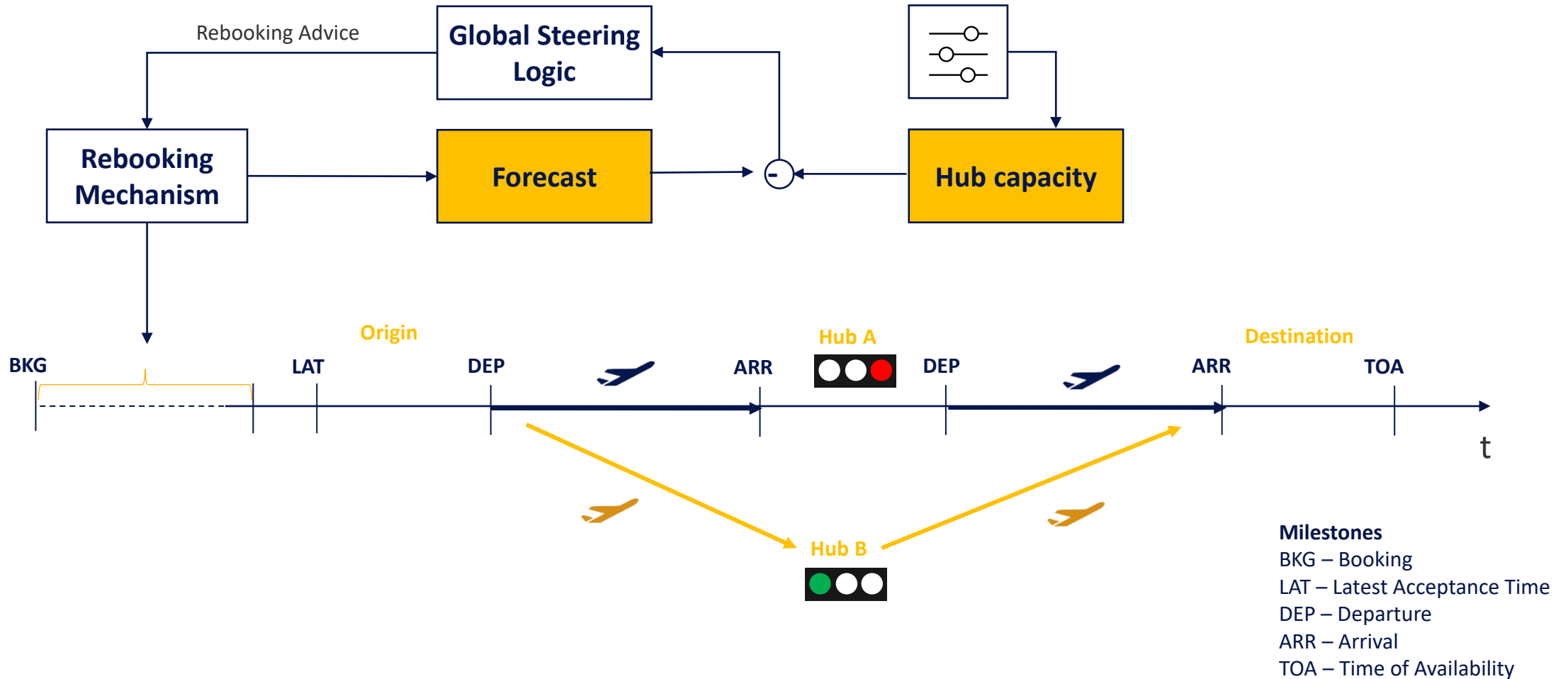
Target





Concept of “Hub Capacity base Steering”

Rebooking mechanism steers shipments to other hubs if shipment is still on time





Hub Capacity Based Steering – Multiple potential solutions

Shipment Depeaking

spatially

Pre-Booking

| Hub | Cap. | \$ |
|-----|------|-----|
| A | 1 % | 95 |
| B | 30 % | 100 |

| Hub | Cap. | \$ |
|-----|------|-----|
| B | 30 % | 100 |

~~Hub B capacity table~~

I. Not Bookable

| Hub | Cap. | \$ |
|-----|------|-----|
| B | 30 % | 100 |
| A | 1 % | 120 |

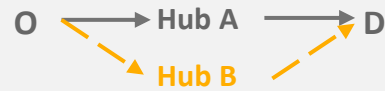
Not Appealing

II. Route Sorting

III. Access Rate

Post-Booking

IV a. Rebooking between hubs



Relief specific hub directly

IV b. Rebooking between flights

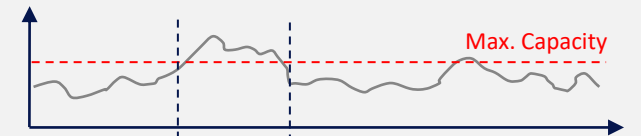


Enable efficient Load Planning

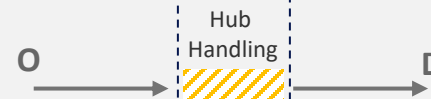
temporally

Dynamic Handling Times

V. Steering by dynamic handling times



Without steering



With steering



Thank you!



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THANK YOU FOR YOUR INTEREST

