CASE STUDY TU BERLIN <> INSTAFREIGHT: SCA WiSe 2021

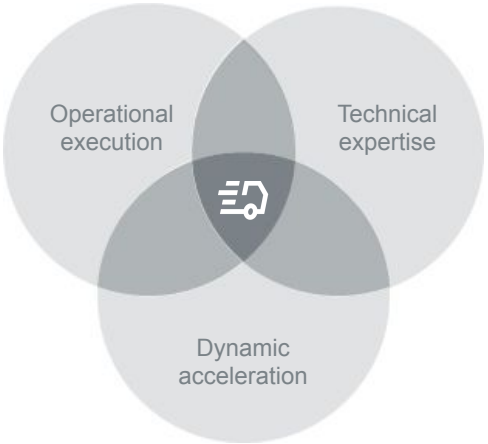
January 13th, 2021

Agenda

Introduction

InstaFreight is a fast growing well-funded logistics company with the entrepreneurial passion and technical expertise to develop a world-class logistics solution for shippers and carriers.

- We are an experienced team of logistics experts, delivering high quality services to our customers.
- Using our technical expertise, we create additional value through increased transparency and process optimization.
- We differentiate by relentlessly driving for innovation in a dynamic fashion.

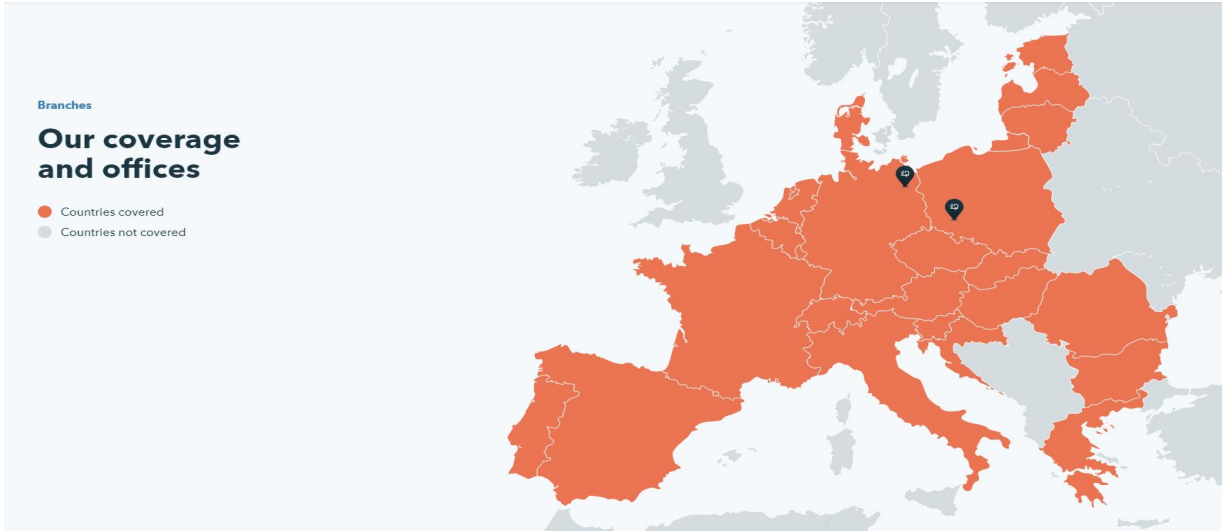


- Foundation of InstaFreight
  June 2016
- First financing round
  November 2017
- Smart Supply Chain Solution Award
  November 2018
  EXCHAINGE The Supply Chainers' Community
  Smart Supply Chain Solution Award 2018
- 2nd Office in Poland
  March 2019
- 100+ employees
  November 2019
- Integration into SAP LBN
  November 2019
- Latest funding round (∑> €35 M)
  January 2020

Introduction

Since the foundation of InstaFreight, three offices were established.

1. One office is located in Berlin, Germany and operates as InstaFreight GmbH whereas
2. the other two offices, located in Legnica and Wroclaw, operate as InstaFreight Sp.z.o.o.



Introduction

InstaFreight is managed by Philipp Ortwein (middle), and Maximilian Schäfer (right) as CEOs and Markus Doetsch (left) as CTO.

InstaFreight was founded as a digital logistics provider in order to create a platform for customers and carriers so that the fragmentation of the logistics industry can be reduced.

Introduction

Reasons for fragmentation:

1. **Many small and medium sized transport companies** which lead to a relatively small market share for global players
2. **Many different portals and apps** where transport companies can source transport orders
3. **Long payment terms up to 60 days** or more which lead to a high amount of capital commitment

The digitalization of the fulfillment of a transport order is also lacking some development

➔ Eliminating the paper-based documentation and processes in order to achieve a digitalized transport logistics industry (transport logistics 4.0).

Our Vision

Transport logistics into the digital age and become the leading provider for road freight in Europe

Introduction

InstaFreight as a digital logistics provider for both, the shipper and the carrier.

- ➔ Shipper: has the need to ship FTL, LTL or groupage loads (resulting in demand).
- ➔ Carrier: has the need to receive as many transport orders as possible to optimize the capacity utilization of his vehicles (supply)

InstaFreight builds the connection between these two parties.

Depending on the current market situation as well as extraordinary situations i.e. peak times, pandemics etc., the market is either tighter or wider (change in demand and supply).

Our Mission

We win customers by offering simple solutions to complex problems.

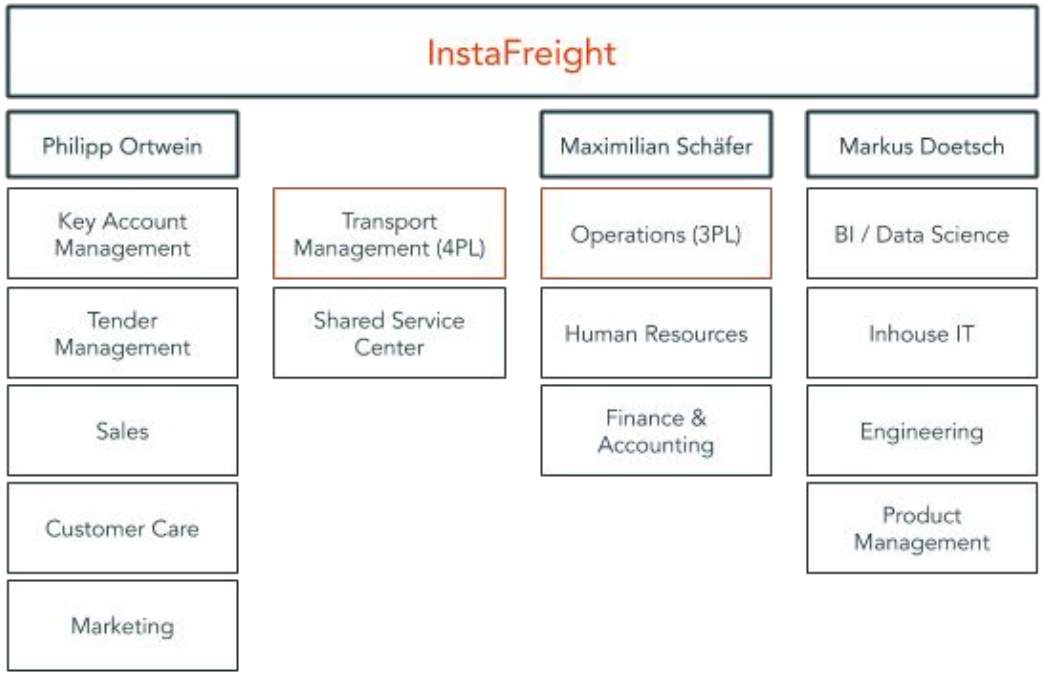
We enable carriers of today to meet customers needs of tomorrow.

We scale through digital innovation.

Introduction

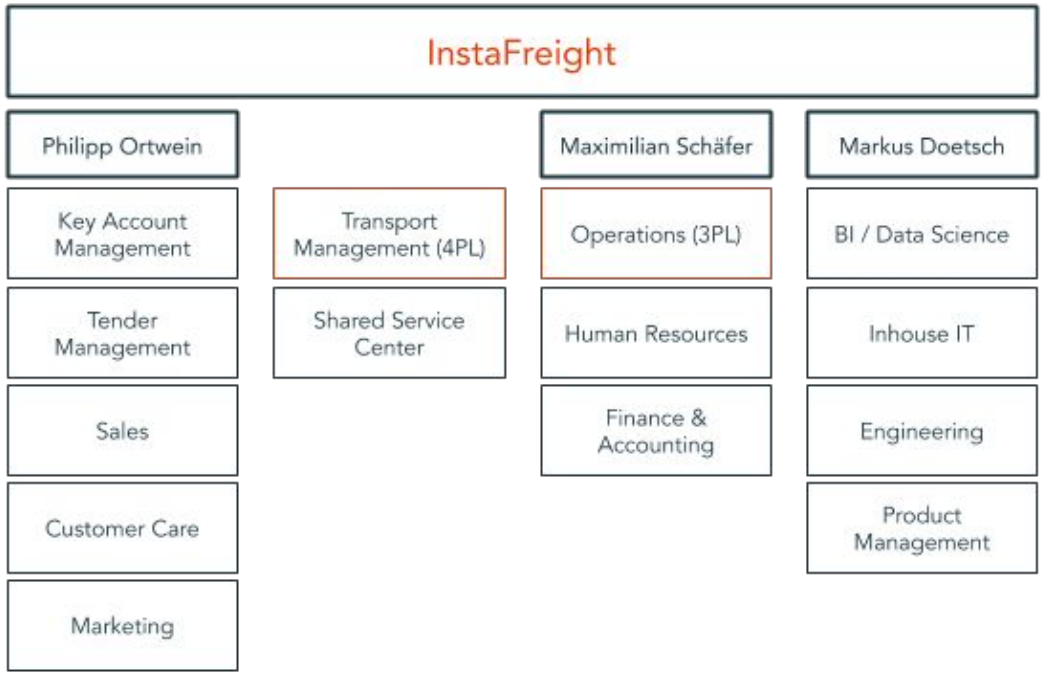
Tasks for sourcing a suitable carrier for a placed order for a certain freight price handled by an Operations department.

- ➔ is split along geographical regions and customers.
- ➔ within regional teams, some procure capacity (Forwarding Managers) and others assure the quality of a to be fulfilled shipment (Quality Assurance Manager)
- ➔ This part of the operations department is fulfilling the 3PL business



Introduction

- The Transport Management department is responsible for the 4PL business and is acting as a service provider who coordinates the logistical processes of a particular company as a customer and its carriers.
- In both business models, 3PL and 4PL, InstaFreight does not contribute any own assets such as trucks (fleet) for the fulfillment of a shipment.



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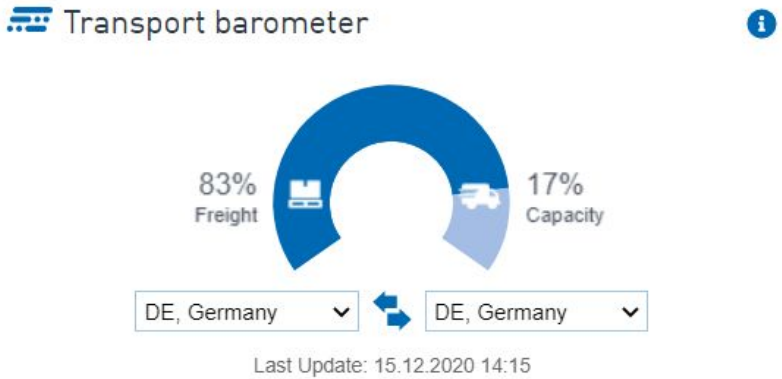
Problem description

Shifted equilibrium between demand and supply because of a change in demand for transportation by our customers.

- ➔ Reason: shift in demand of certain products.
- ➔ Demand > supply: shortage of capacity (not all transports can be fulfilled with the given free capacity)
- ➔ Timocom transport barometer as indication for the current market pressure: HERE



The higher the ratio of freight (demand) to free capacity (supply), the tighter the market and the higher the respective market pressure due to a lack of free capacity in the market.

Problem description

With this **unforeseen** increase in the market pressure, the margin at InstaFreight has decreased.

➔ challenge of identifying such an impending margin collapse due to events or changes, internally and externally, on the basis of comparative data.

This is why we need YOU!

We want to understand the data set of to be dispatched shipments and the given margins better in order to reorganize the drop of margins due to given events in the past.

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Process description: shipment details

1. A shipment reference will automatically be created, when the customer is entering an order via the InstaFreight booking funnel and the shipment will be in the shipment state "new".
2. Depending on the shipment state, the shipment will also have a broader defined shipment stage. One or more states can be aggregated into one stage:

Stage	States
new	new, initialized
placed	placed, managed, pending, assigned
dispatched	accepted
in_fulfillment	inFulfillment, alert_cs
delivered	delivered, toVerifyDelivery
fulfilled	toBeInvoiced, awaitingPayment, completed
cancelled	cancelByCustomer, cancelByAdmin, cancelled

Process description: shipment details

3. The business model can either be 3PL or 4PL, depending on the particular customer.
4. Custom Rate shipments are booked from an existing Custom Rate. Spot shipments can be booked as a single shipment.
5. The fulfillment type of a shipment can be FTL, LTL or Consolidated cargo.
6. Each shipment also has a lane domain, which is showing in which direction the shipment is going.
7. The country lane shows from which country to which other or same country a shipment is going.
8. The stops_count displays the amount of stops of a shipment, including the pickup and dropoff location.
9. Lastly, the timestamp of when a shipment is created, is also saved in a shipment as shipment_created_at.

Process description: dispatching details

1. The smh_accepted_first_state_change shows when a suitable carrier has been found, assigned to the shipment and she shipment accepted by the carrier. Only then the dispatching process is completed.
2. The smh_accepted_last_state_change is the last change of the shipment acceptance by a carrier. There will be a difference to the first state change when multiple carriers have been assigned to a shipment.

Process description: time windows

1. The first_stop_requested_arrival_to shows the requested time window for the loading with the date and the time.
2. The date for this is separately shown in the first_stop_requested_arrival_to_date.
3. The latest agreed time of arrival of the carrier at the loading station is shown in the first_stop_agreed_arrival_to.
4. The actual time of arrival at the loading station is shown in the first_stop_actual_arrival.

Process description: time windows

1. We calculate the requested arrival for the unloading station depending on the distance between the loading and unloading station and some additional buffer time because we do not want to enable the customer to book express delivery or a warehouse on wheels. This is shown in the last_stop_requested_arrival_to.
2. The date for this is separately shown in the last_stop_requested_arrival_to_date.
3. The agreed arrival time of the carrier at the last stop is shown in last_stop_agreed_arrival_to.
4. The actual arrival time of the carrier at the unloading station is shown in the last_stop_actual_arrival.

Process description: cancellation

1. In the case of cancellation of the shipment, the timestamp of when a shipment will be cancelled and saved as sh_cancelled.
2. The reason for cancellation will be mentioned as cancellation_reason.

Process description: revenue and costs

1. The transport_price_booked is the shipment price for which a customer is confirming his booking.
2. The carrier will receive the transport price, saved as transport_cost_assigned.
3. The transport price for the customer might be impacted by cancellation costs and saved as total_revenue.
4. Any changes to the transport price for the carrier is shown as total_cost, so the total amount which needs to be paid to the carrier.

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Data description

➔ Continue with the data set


INSTAFREIGHT
Thank you for your attention.
Laura-Jane Birr
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