

Impact of a freight shift



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JDR Figures



5 Business units

24 Offices in 13 Countries

100 Airports

900 Trucks

1.050 FTE

1.200 Trailers

150.000 m²

1.000.000 tons intermodal

Business units

Supply chain solutions



International transport

Benelux distribution



Intermodal transport

Contract logistics



Intermodal solution

- Company train between Benelux - IT
 - 2 trains a day
 - 22 Hours transit time
 - Secured / Temp. controlled



Air cargo and Aerospace

- Connecting over 100 airports
- European market leader
- Local offices and contacts
- Engineering and innovation

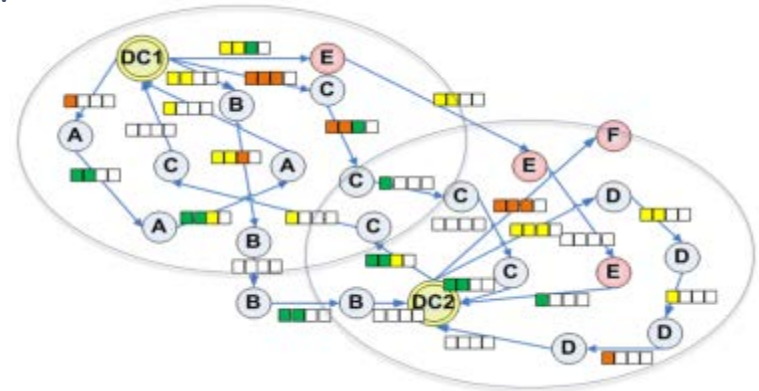


Where is logistics going to...

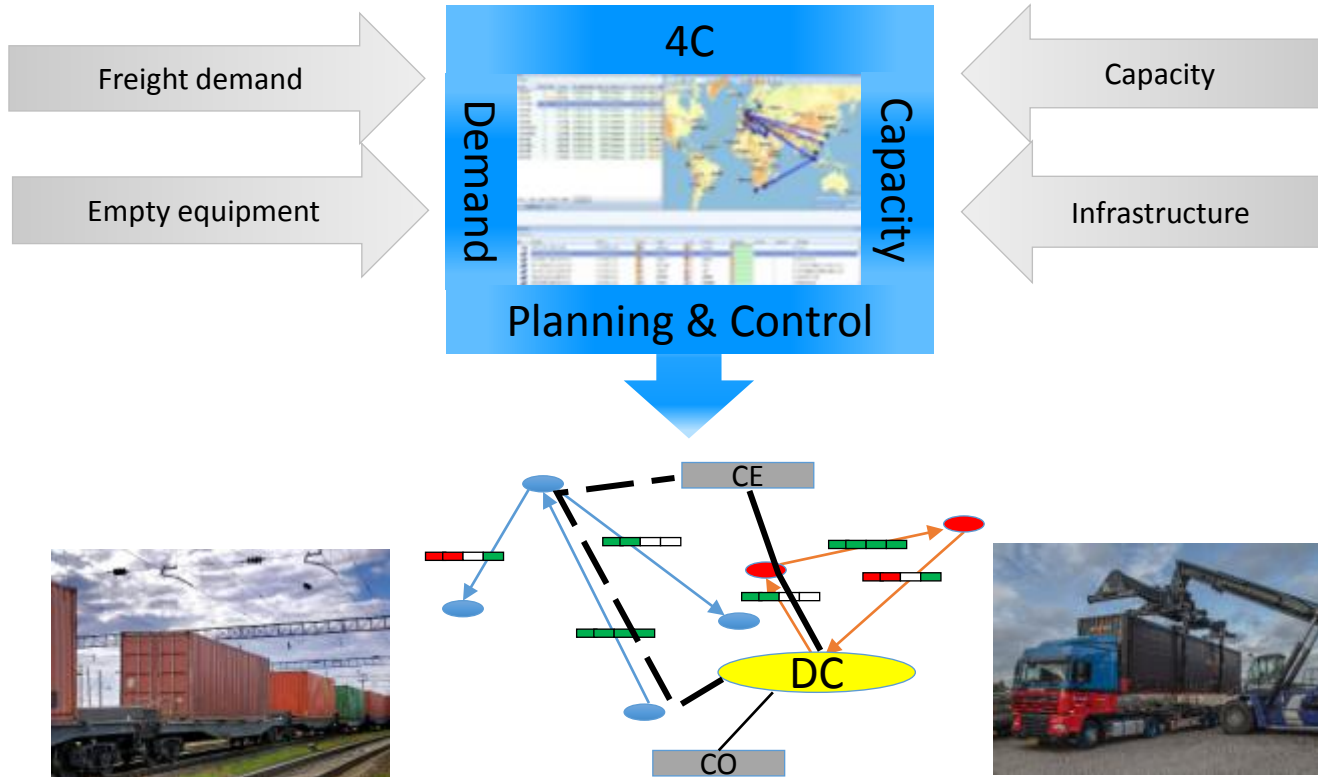
- 4C logistics service providers;
representing anyone that searches for logistic services; smartly uses the freight streams, available capacity cross chain, books logistics services and follows the execution respecting the services levels from LSC's.
- Rapid procurement – shorter periods;
shippers start producing more by the order and requesting more often last minute prices for transportation vs. Standard prices for schedules representing standard routes where only the last mile is price sensitive.
- Logistics Service Provider uses specific tooling;
information sharing and huge data (complex) analysis is the key factor for logistics, cross chain control centre, using advanced decision support, advanced planning & scheduling, smart liner data, complex event processing and optimization algorithms.
- The business benefits;
The main benefit for all interconnected partners is the cross chain logistics optimization, thus saving cost & CO₂, enhancing utilization, optimize use of infrastructure and increasing performance.

4C - Cross Chain Control Center

- 4C is suggested by Jan Fransoo (Yr:2008), a Professor of operations management and logistics in the School of Industrial Engineering at Eindhoven University of Technology in the Netherlands. The 4C principle is also supported by the Dutch Institute of Logistics.
- **Global supply chains grow complex**
 With evolving technologies it requires specialists to operate the various applications for advanced planning, forecasting, analysis big data and financial opportunities.
- **Band together**
 With 4C's, logistic companies can share valuable technological expertise that would benefit manufacturers, retailers, and others who are in need for logistic services
- **Interconnected logistics**
 4C's operate shared logistics intermodal networks. Recent study finds that approximately 25% of freight vehicles in the EU are running empty and approximately 57% average utilization of the freight vehicles. 4C's could improve this when manufacturers, retailers, and others share their freight demand and logistic service providers share their transport capacity.

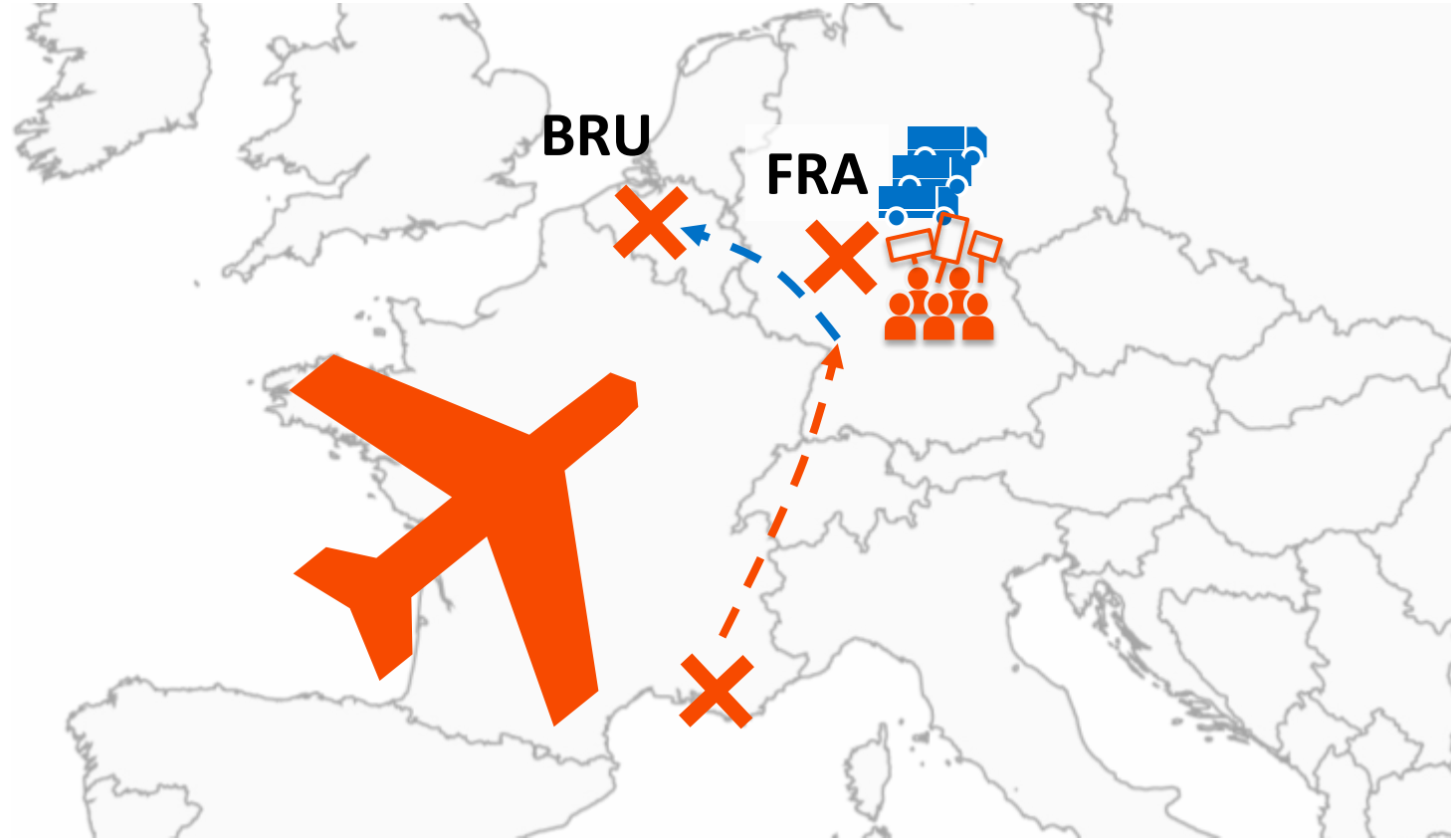


4C – Operational View



Freight Shift:

Airplane is rerouted to another airport



One airplane carries about **80 – 115 ton.**



That makes **11 FTL trucks** in average, each carrying 9 ton.

Mostly, freight of one airplane has lots of destinations, so up to **30 trucks are needed.**

In average handled by **5 TSP.**



Freight shifts affect up to **60 trucks** resulting in **450 handlings**



5 handlings for trucks of
the original situation



5 - 10 handlings for trucks
of the new situation



1-2 hours for handling*

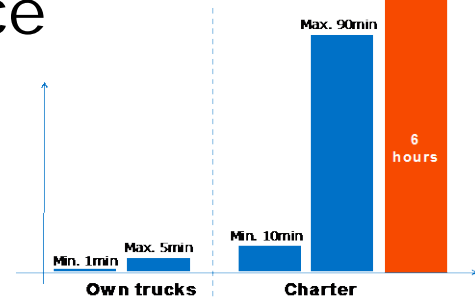
*Per truck total handling takes about 1 to 5 minutes.

Handling freight shifts often requires **charters**



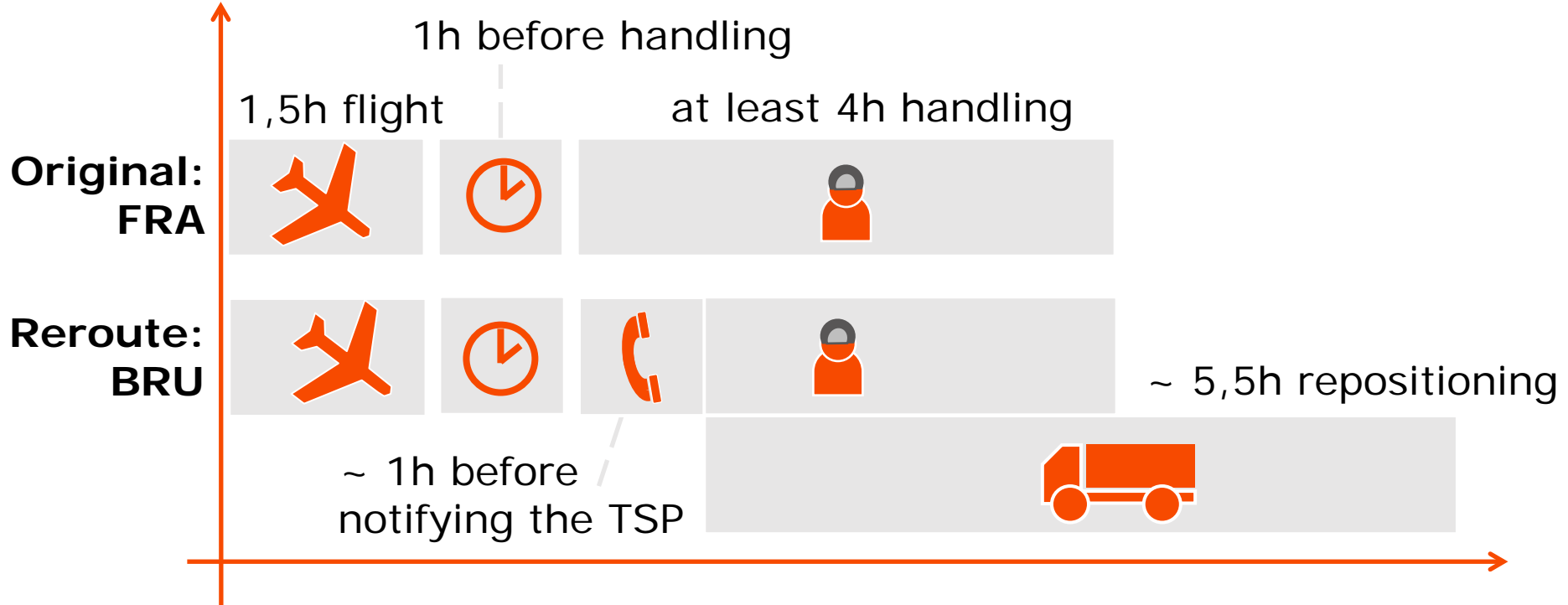
- 1 Finding a charter
- 2 Available capacity
- 3 Arranging the time
- 4 Arranging the price

Contracting charters can
take up to **6 hours**



Repositioning the trucks makes the
pick-up late by at least 2,5h
for a freight shift from

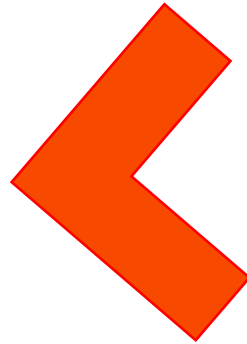
FRA to BRU



One airplane is greener than all empty trucks from **FRA** to **BRU**



6936 kg of CO₂e emissions



8700 kg of CO₂e emissions

A close-up photograph of a car's side-view mirror. The mirror's frame is black and rounded. The reflection inside the mirror shows a large, modern building with a blue and white facade. On the building, there are logos: a red and white striped logo with the text 'DE RIJK' below it, and another logo with the text 'Logistics' below it. The sky in the reflection is blue with some light clouds. The background of the entire image is a clear blue sky with a few wispy clouds.

Questions?