LOGISTAR

Use Case Description

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ahlers

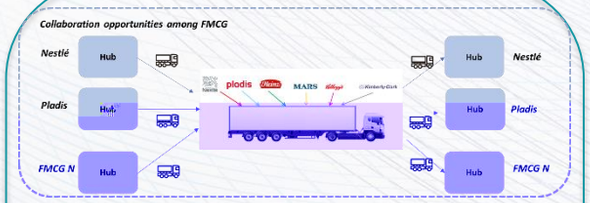
Living Labs

- Living Lab 1: Backhauling & Co-Loading
- Living Lab 2: Synchromodality
- Living Lab 3: Reduction of Waiting times
- Living Lab 4: Virtual Living Lab

Q&A

The New Living Labs

LOGISTAR services will be **tested under real operation environment** in four Living Labs



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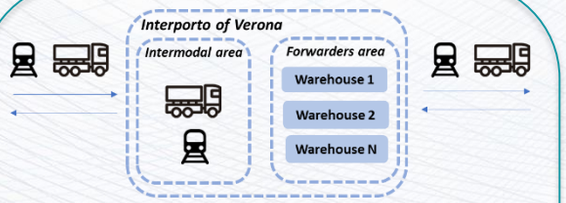

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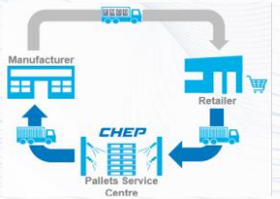

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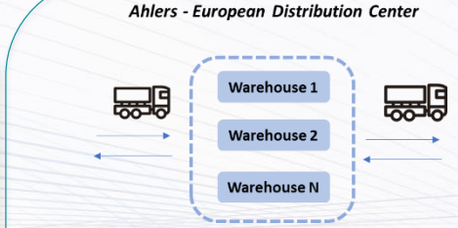

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Real-time alerts and recommendations to take action, facilitating the decision-making process.

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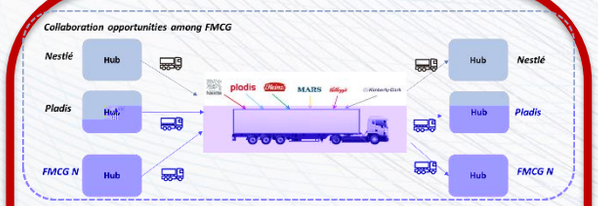

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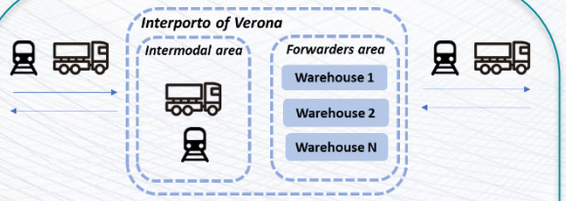

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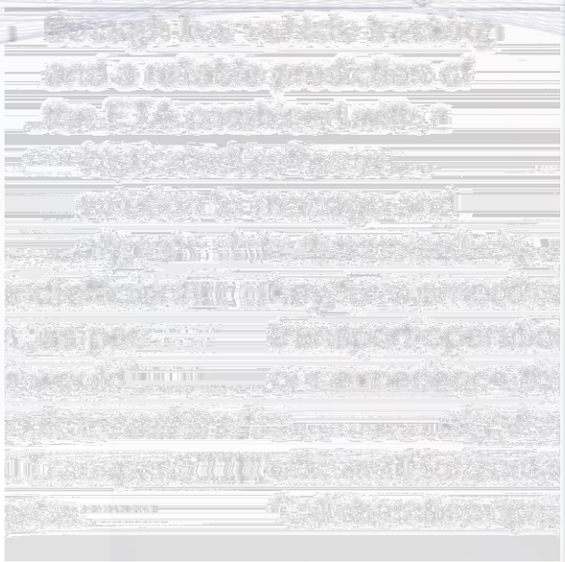

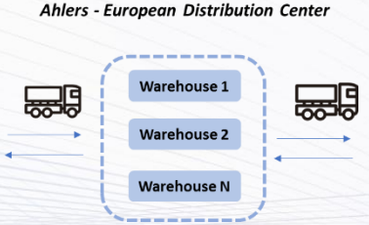

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Living Lab 1: Backhauling and Co-loading

About 12 years ago Nestlé had an issue with empty running. It was delivering over 15 loads per day from its factories in the North of England to its distribution centre in Leicestershire. However, only 80% of these loads could be tied to a return journey, so every day 2 or 3 trucks would return to the North empty. pladis was delivering loads on a daily basis to Yorkshire from its distribution centre close to in the Midlands and some of these loads presented opportunities for round tripping vehicles. Both shippers wanted to reduce cost, reduce CO2 emissions and maximise asset utilisation. Having met at an IGD event, Nestle and pladis decided they could share the use of trucks to create round trips and reduce empty running, saving over a quarter of a million kilometres per year.

York	→	Bardon	96,500 kms
Halifax	→	Bardon	27,000 kms
Melksham	→	Midlands	157,250 kms
Total			**280,750 kms/yr**

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Living Lab 1:Backhauling and Co-loading

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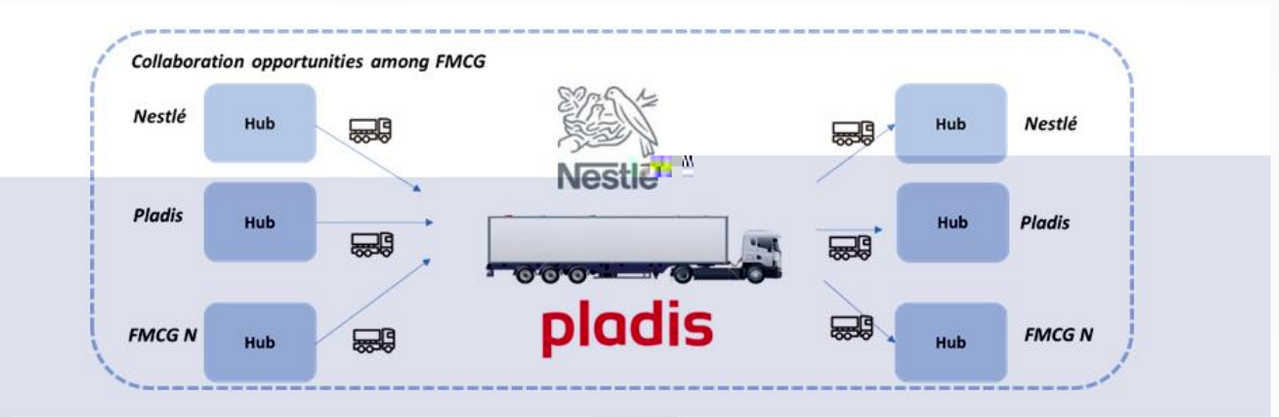
Living Lab 1: Backhauling and Co-loading



Real time backhauling in the FMCG sector

Process of various information coming from the different companies (*schedules, resources, constraints, truck, positions, empty return legs…)* to improve backhaul management.

Co-loading opportunities will also be considered, plus any cost-effective alternative modes of transport.

Overview of the status of the operations through real-time dashboards and real-time information on road transport system.

The execution of the living lab will be split into several phases starting with the collection of historical data from both Nestlé and pladis. A strategic analysis will be conducted in order to understand the current logistic networks of both companies. This data will be used to set up and test the Logistar system, prior to the go live of the use case.

Living Lab 1: Backhauling and Co-loading

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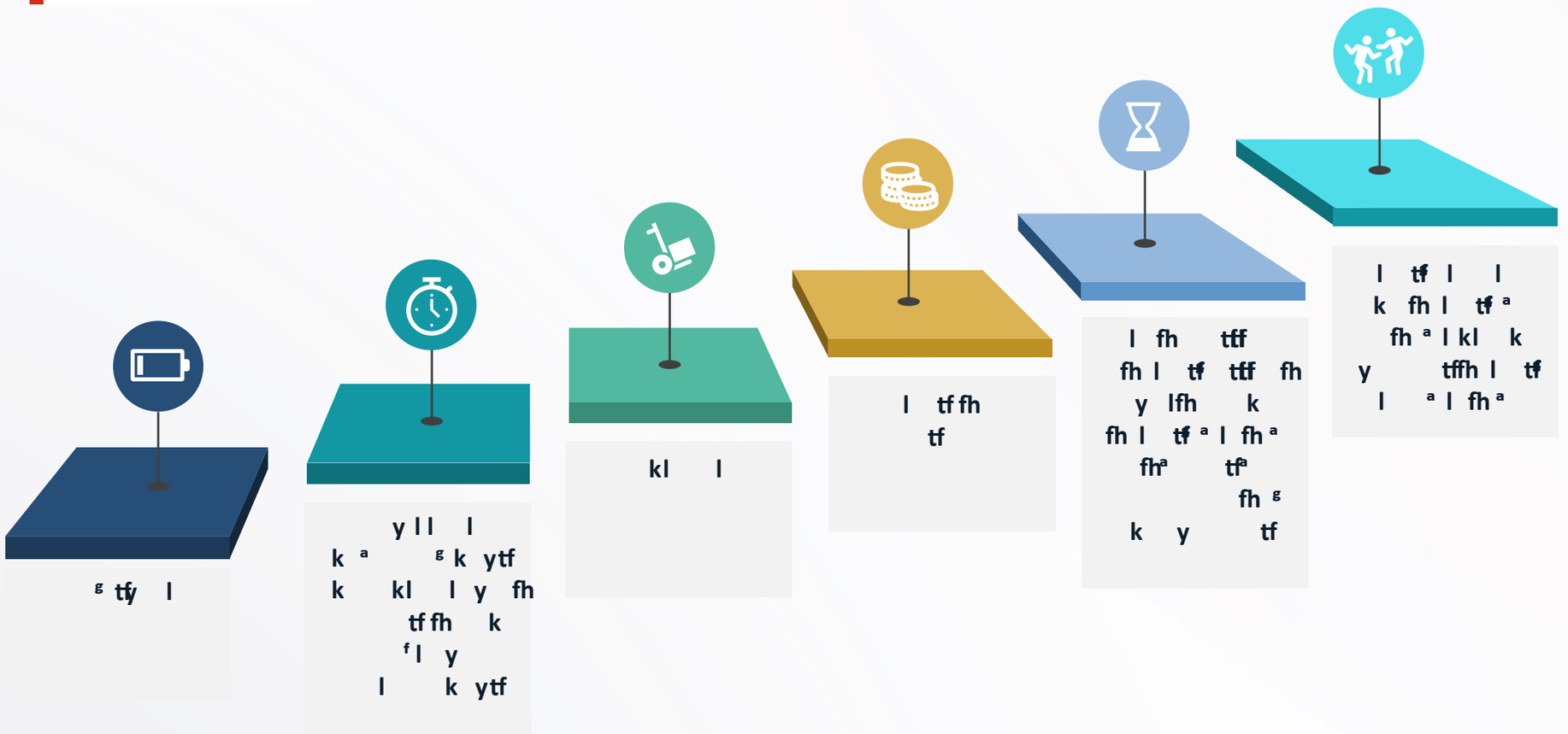

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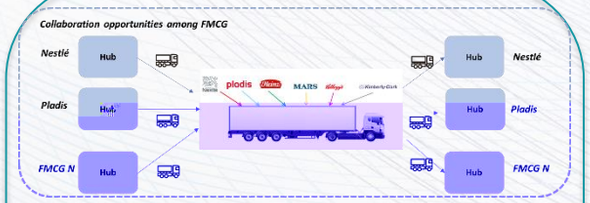

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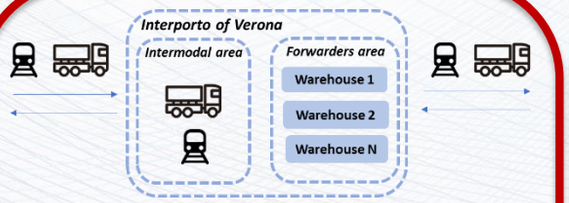
Nestlé

pladis



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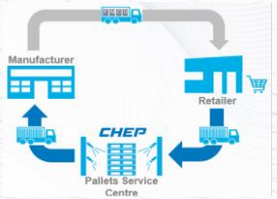

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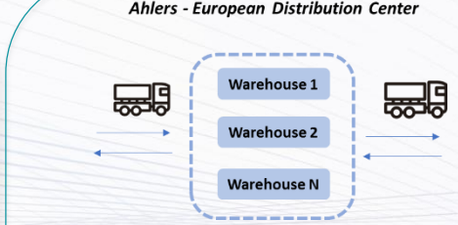
CHEP



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Living Lab 2:Synchromodality

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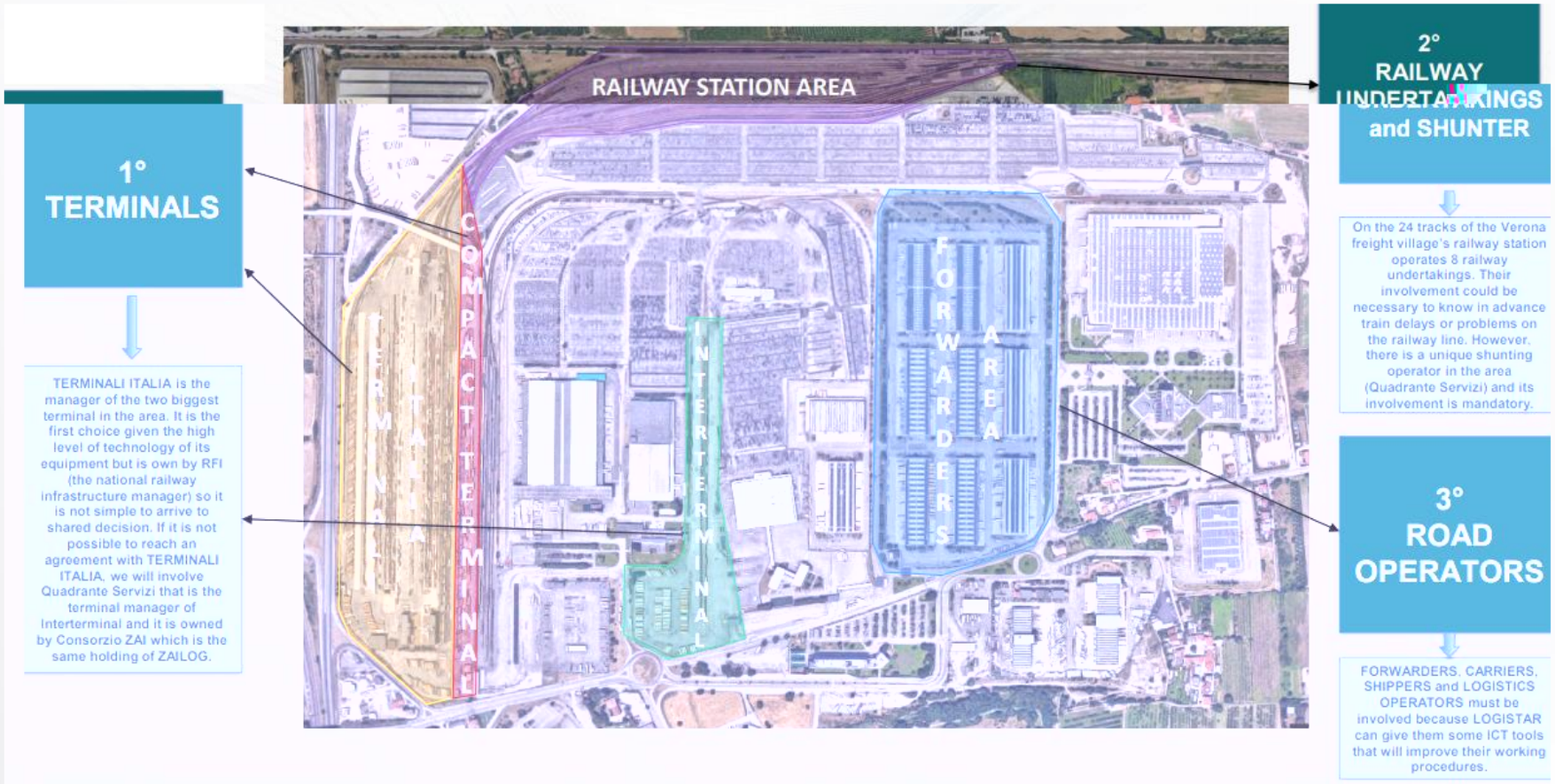

Living Lab 2:Synchromodality

RAILWAY

TRAIN DELAYS

- RAILWAY LINE DISRUPTIONS
- LOWER PRIORITY OF A FREIGHT TRAIN THAN A PASSENGERS ONE
- BAD WEATHER CONDITIONS
- MAINTENANCE OF THE LINE

TERMINAL

OUT OF CAPACITY

- LOADING UNITS LEFT ON THE BUFFER AREA FOR A LONG TIME
- THERE IS NOT A SMOOTH FLOW OF TRUCKS: PICK UP IN THE MORNING, DROP OFF IN THE EVENING
- DIFFERENT OPERATING HOURS BETWEEN WAREHOUSES AND FREIGHT TRAINS
- LACK OF INFRASTRUCTURES RELATED TO NEW EU STANDARDS (750 METERS-LONG)

ROAD

TRAFFIC JAMS

- CAR ACCIDENTES
- FESTIVITIES
- BAD WEATHER CONDITIONS
- MAINTENANCE OF THE ROAD

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LOGISTAR

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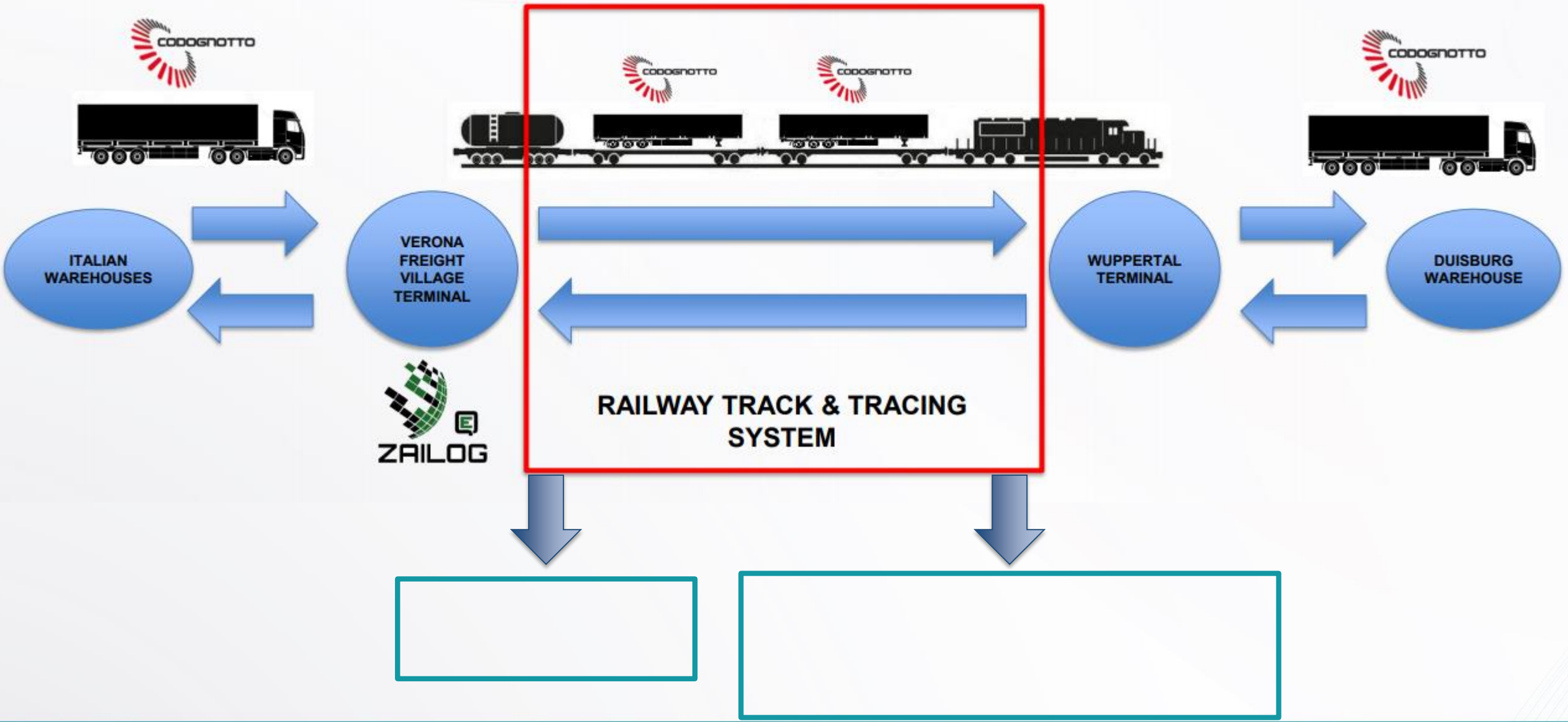

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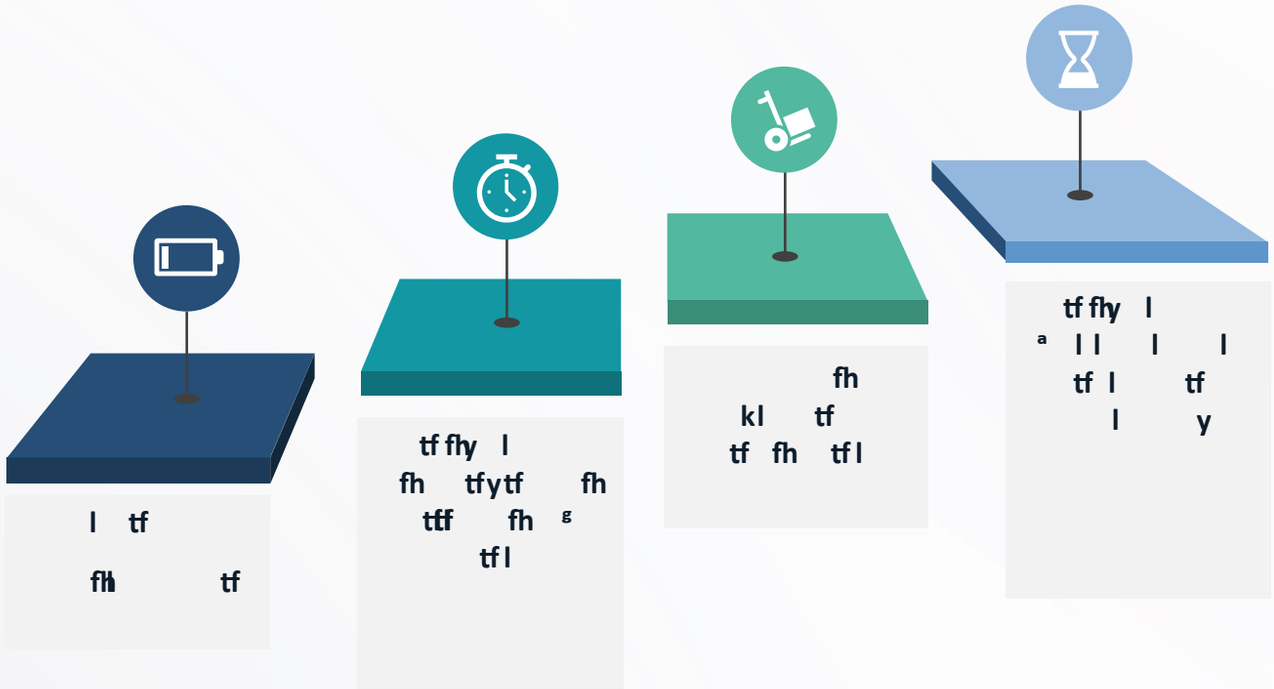

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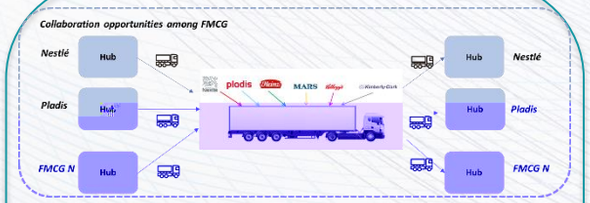

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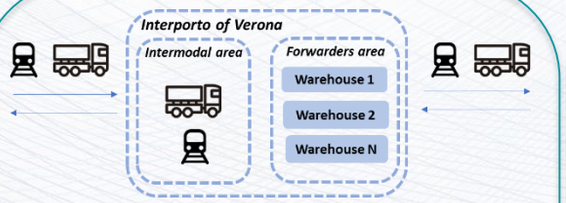

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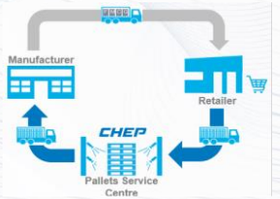

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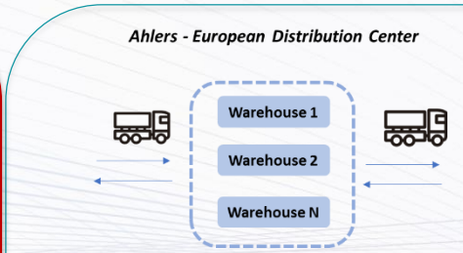

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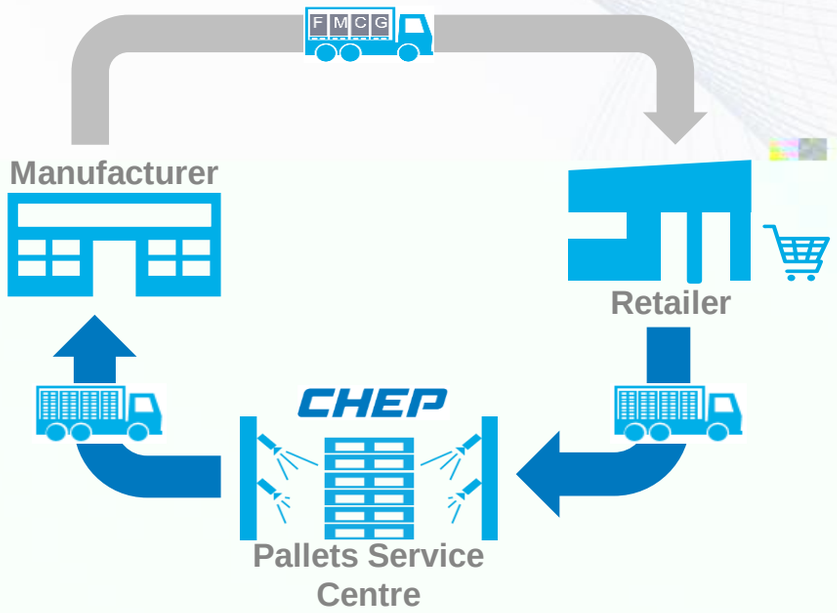
CHEP EU Key Data & Logistics operating Model

Our platforms and solutions enable profitability and sustainability without having to compromise one for the other. We manage, maintain, transport and supply more than 330 million platforms, crates and containers that are shared and reused by growers, manufacturers, distributors and retailers.



Every day CHEP is delivering, collecting and relocating more than 4,5 million pallets from and to our 240 Service Centers in Europe, an equivalent of over 6.000 FTL with 7.500 transport orders.

CHEP Service Center in Fuenlabrada

Entrance

Exit

Parking Area

Loading/unloading Area

50	3	1 to 4	3,6 Mill.	1,3 Mill.
Loading/Unloading per day	Loading/Unloading areas	Forklift drivers	Pallet Inspection	Pallet Repair

Suggested KPI's & Dashboard for LL3

Title of dataset	Short description
Average waiting time for loading / unloading	Average time from arrival to service center location till departure of truck
Daily idle time at Fuenlabrada Service Center	Daily time where unloading bays / forlifts are not active due to no trucks
Vehicle productivity (CHEP productivity)	Av daily time trucks are productive / driving and not waiting for loading / unloading
Detaction of potential customer service failures	Improvement of proactive customer info on late service due to delays at the SC
Improved On Time delivery performance	Improvement of OTD performance due to reduced waiting times at SC

Fleet Schedule – Estimated times of arrival

	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00
1234ABC	(on route → ETA 9:30)	Loading Bay 1						
2345QWE	(on route → ETA 11:30)			Loading Bay 1				
3456ASD		(on route → ETA 12:00)			Loading Bay 2			
4567ZXC	(on route → ETA 11:00)			Loading Bay 3				
5678BNM		(on route → ETA 11:30)			Loading Bay 3			
6789DFG			(on route → ETA 13:30)			Loading Bay 1		
(…)								

KPIs per truck?

- Waiting time,…
- Waiting time,…
- Waiting time,…
- Waiting time,…
- Waiting time,…
- Waiting time,…
- Waiting time,…

Yard Loading / Unloading Bay Planification

	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00
Loading Bay 1			1234ABC		2345QWE		6789DFG	
Loading Bay 2					3456ASD			
Loading Bay 3				4567ZXC	5678BNM			

KPIs per yard?

- % of use,…
- % of use,…
- % of use,…

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Expected results for LL3

Improved vehicle efficiency through **shorter waiting time** (increasing available transport capacity in the market)

Improved **yard efficiencies** due to less idle time between loading & unloading operations

Improved customer **service** through avoidance of unexpected and at this stage **unpredictable delays at loading / unloading**

Remove one of the main blockers for Horizontal Collaboration projects with dedicated trucks through improved loading / unloading time prediction

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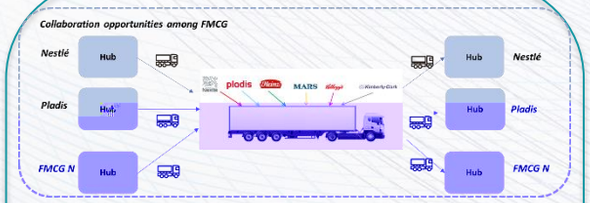

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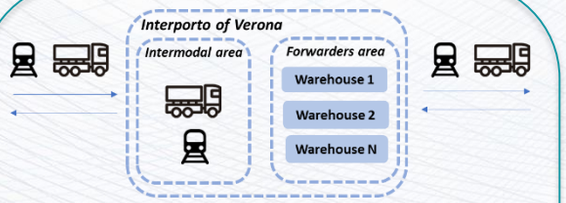

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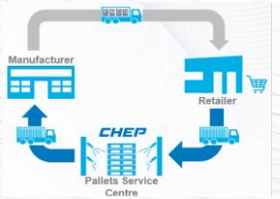

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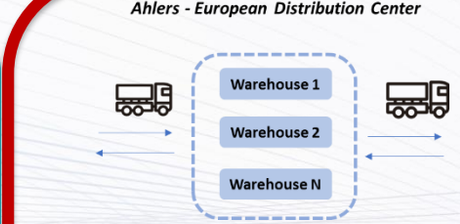

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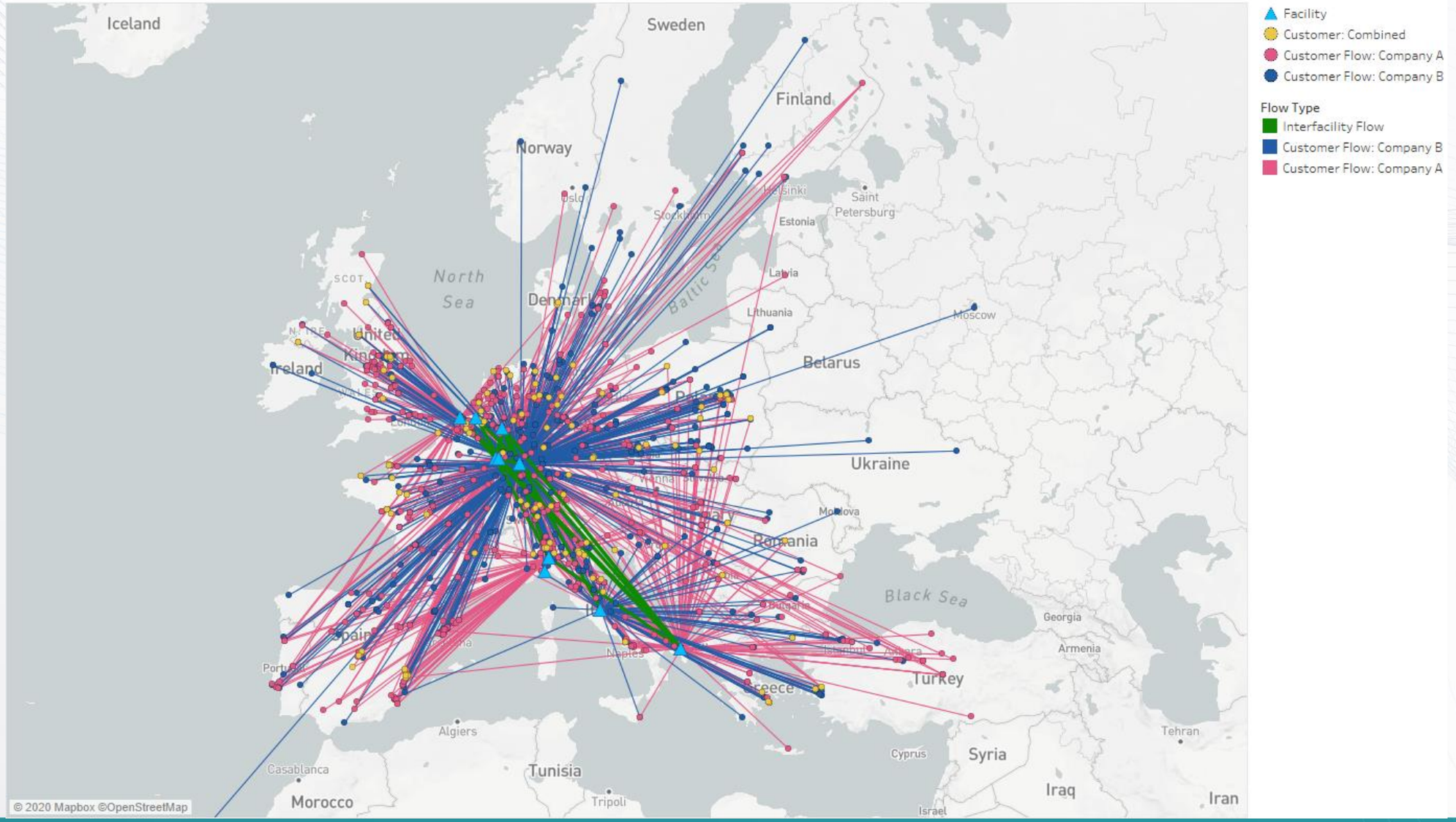
What does this data looks like?

Scenario Map



LOGISTAR

Contact information

Deusto
Universidad de Deusto

UCC
University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

CSIC
Consejo Superior de Investigaciones Científicas

DUNAV NET

SEMANTIC WEB COMPANY

PRESTONSOLUTIONS LTD

software AG

MDS Transmodal Ltd

GENEGIS
Geographical Intelligence

dbh
dbh Logistics IT AG

ahlers

CODOGNOTTO

Consorzio ZAILOG

pladis
GODIVA McVitie's ÜLKER

Nestlé

Questions?

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