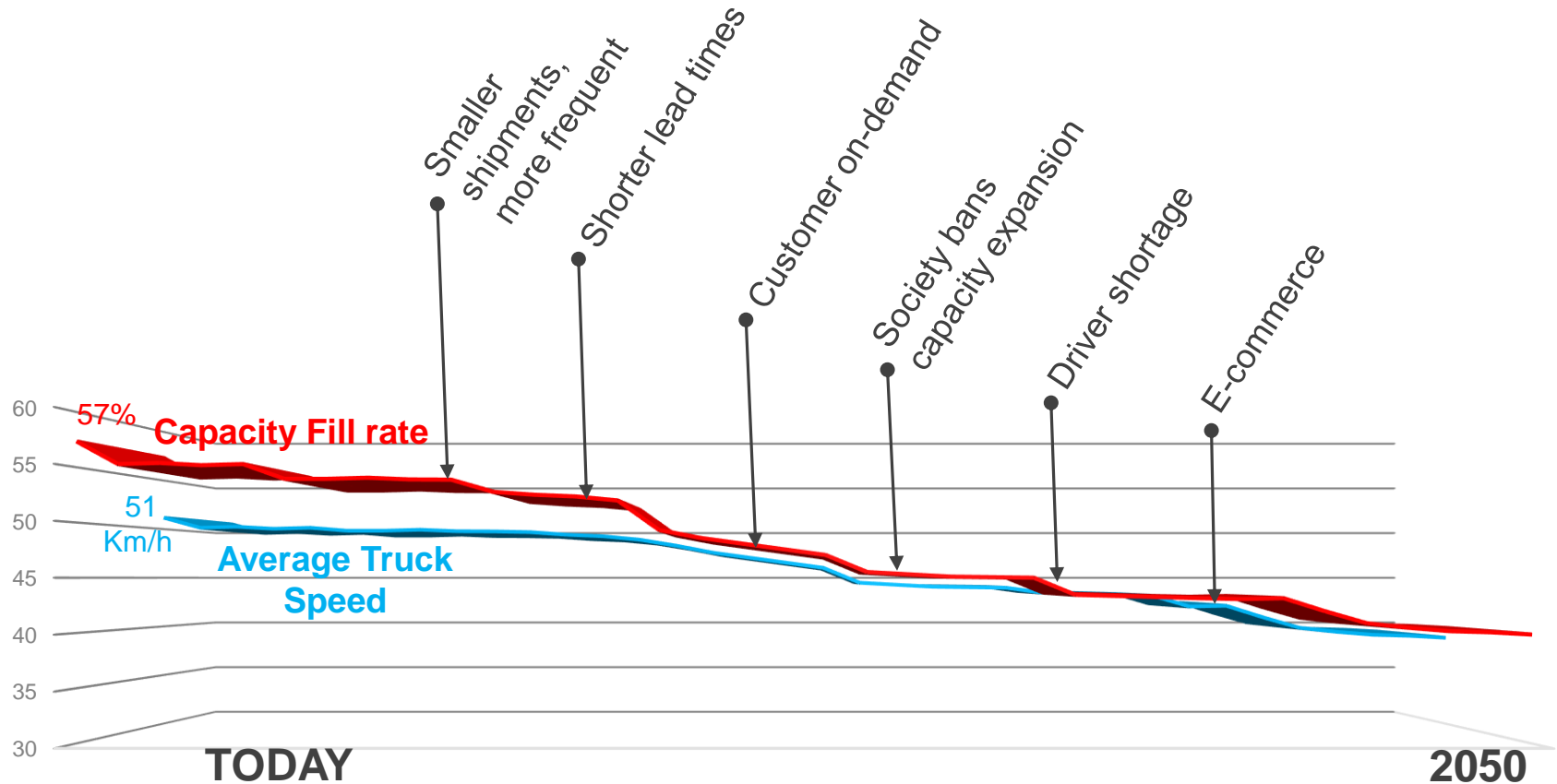


Multi Suppliers Multi Retailers Platform (MSMR)

CITYLAB workshop – March 28th 2018

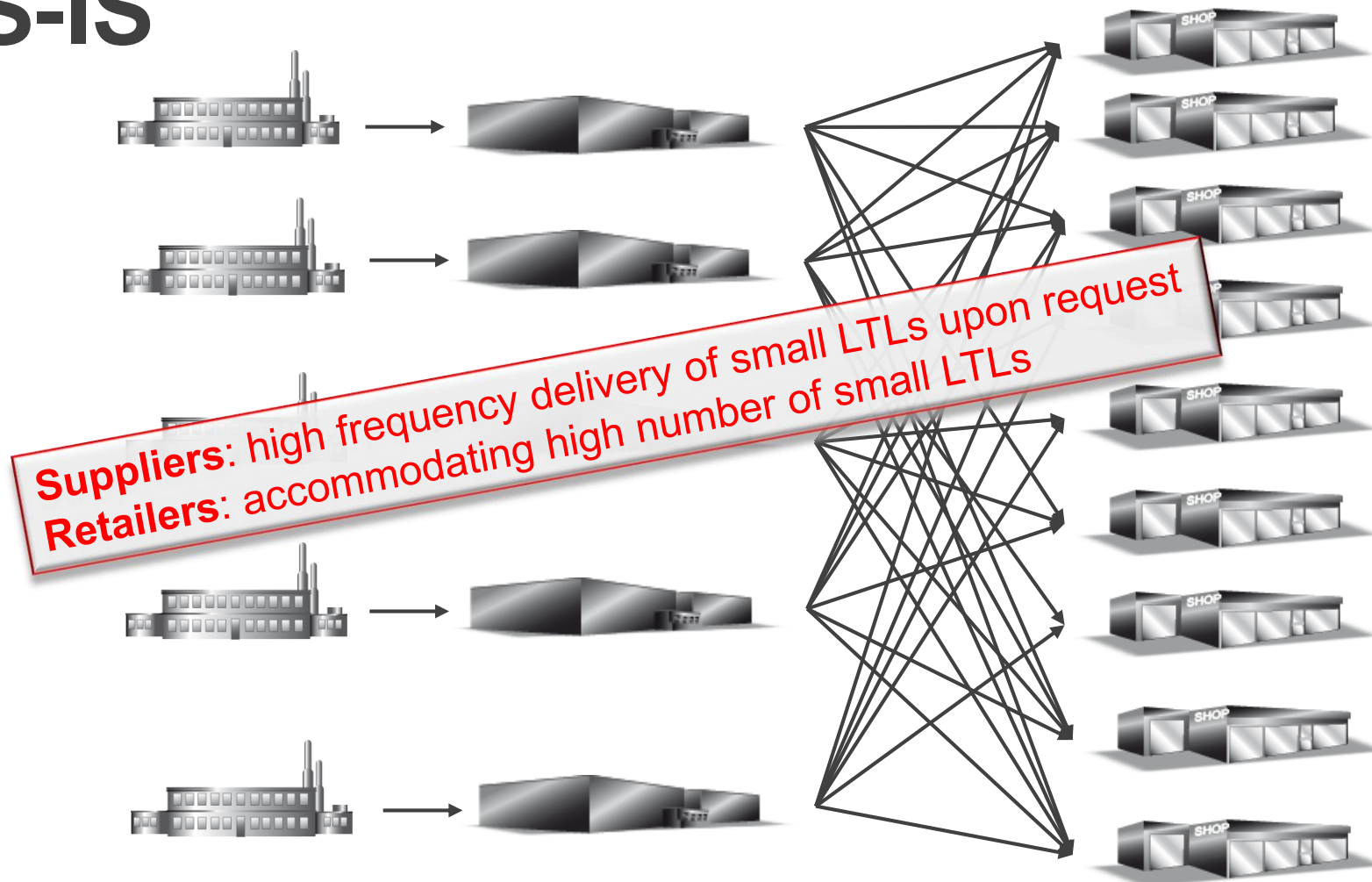
Alex Van Breedam - Trivizor
Luc D'Hondt - Delhaize

Why current business models will fail very soon?

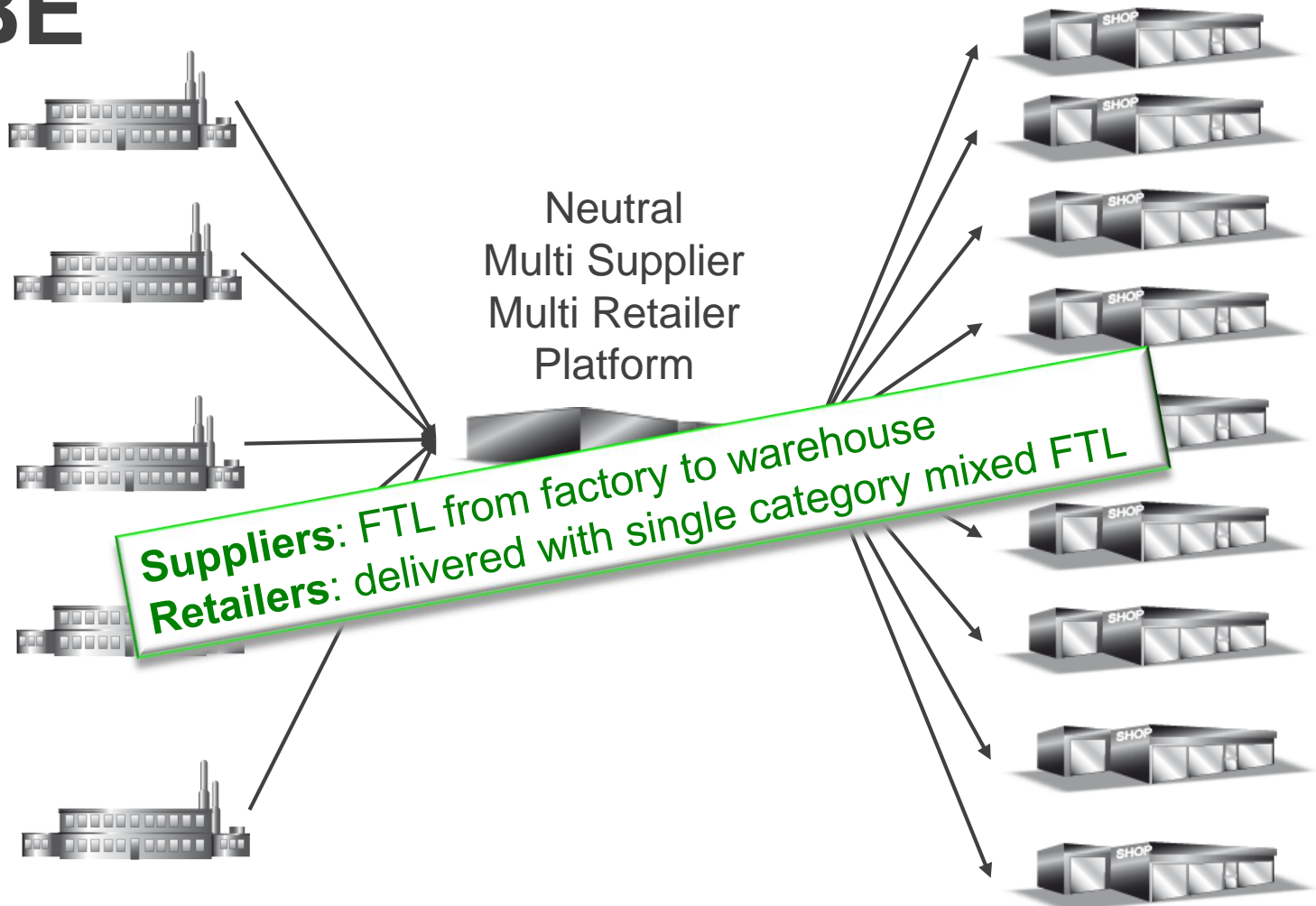


TRI-VIZOR © 2017

AS-IS



TO-BE



<https://www.youtube.com/watch?v=fw-ZqPw3-xl&feature=youtu.be>

MSMR Platform – What?

- Physical platform
- To store and consolidate products of various suppliers
- Products of same category or compatible from logistics perspective
- Suppliers have to replenish with full truck loads and provide stock on the platform
- Retailers fill their trucks with a mix of products of the suppliers

MSMR Platform – Why?

Increased efficiency, effectiveness and sustainability through:

- Reduction of the number of vehicles
 - Reduction of the GHG (green house gasses)
 - Improvement of the load factor of the capacity
- +
- Reduction in logistics costs through consolidations and scale effects
 - Increased service levels

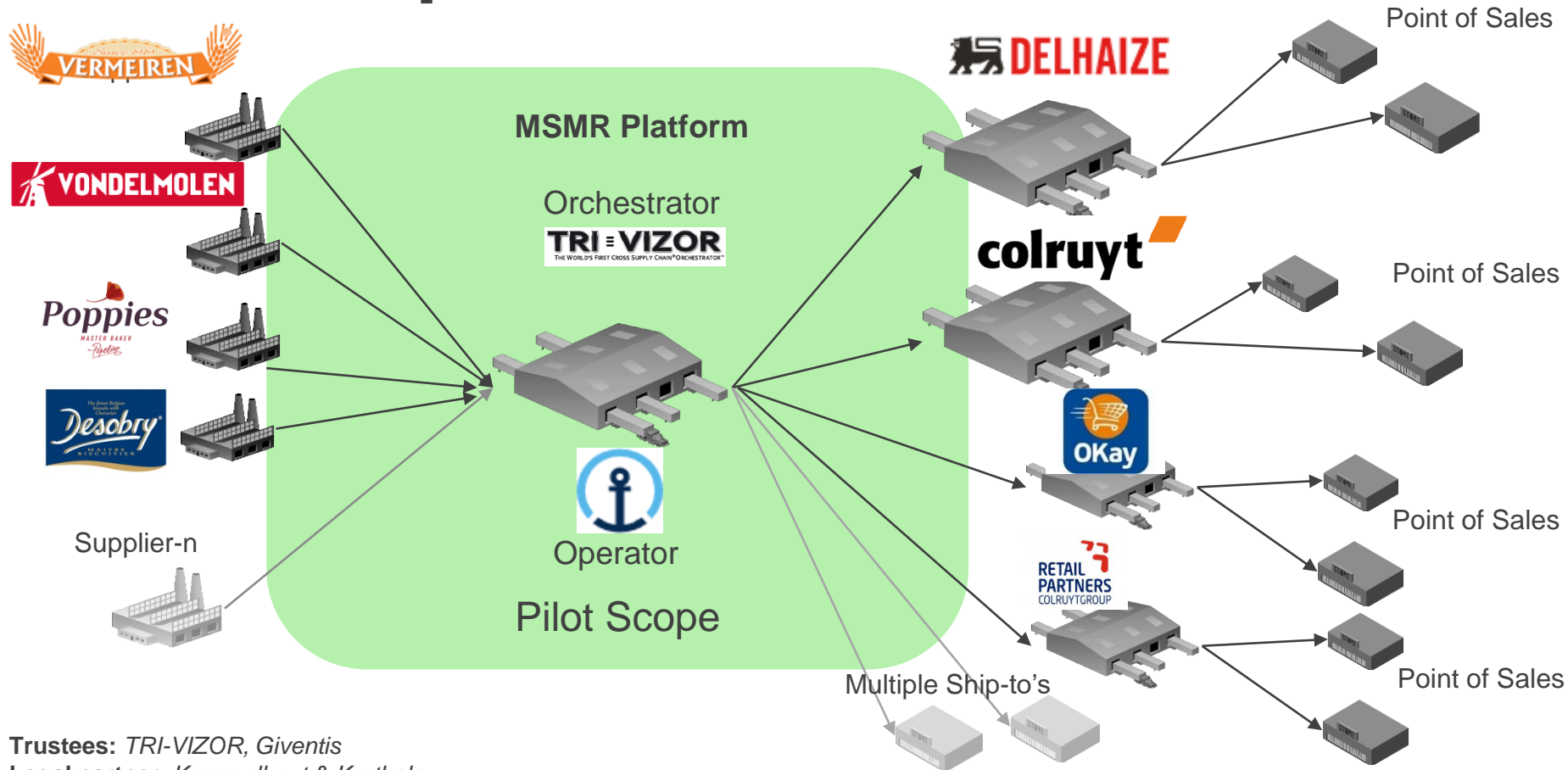
MSMR Platform – How?

- Belgian distribution of cookies, biscuits and pastries.
- Ultimately:
 - including all suppliers (more than 40...)
 - Including all relevant ship-to points of retailers for this category
 - Including all temperature regimes (ambient, 14-18°C, frozen)
- Guided by trustee to guarantee compliance with EU competition law
- Trustee should guarantee benefits for all partners of the platform through a fair gain sharing mechanism
- Operate – Orchestrate setup: collaboration between trustee-orchestrator and LSP-operator for a better synchronization of the flows

Pilot

- In order to test the feasibility of the MSMR platform
- Time: March 6th – March 31st 2017
- LSP: Kuehne & Nagel
- Consolidation centre: K+N Mechelen-Zuid
- 4 suppliers: Vondelmolen, Vermeiren Princeps, Poppies, Desobry
- 4 retailers: Delhaize, Colruyt, Okay, RPCG
- Based on the lesson learned and the outcome of the pilot, the benefits of the MSMR platform for each partner involved will be demonstrated.

Pilot setup

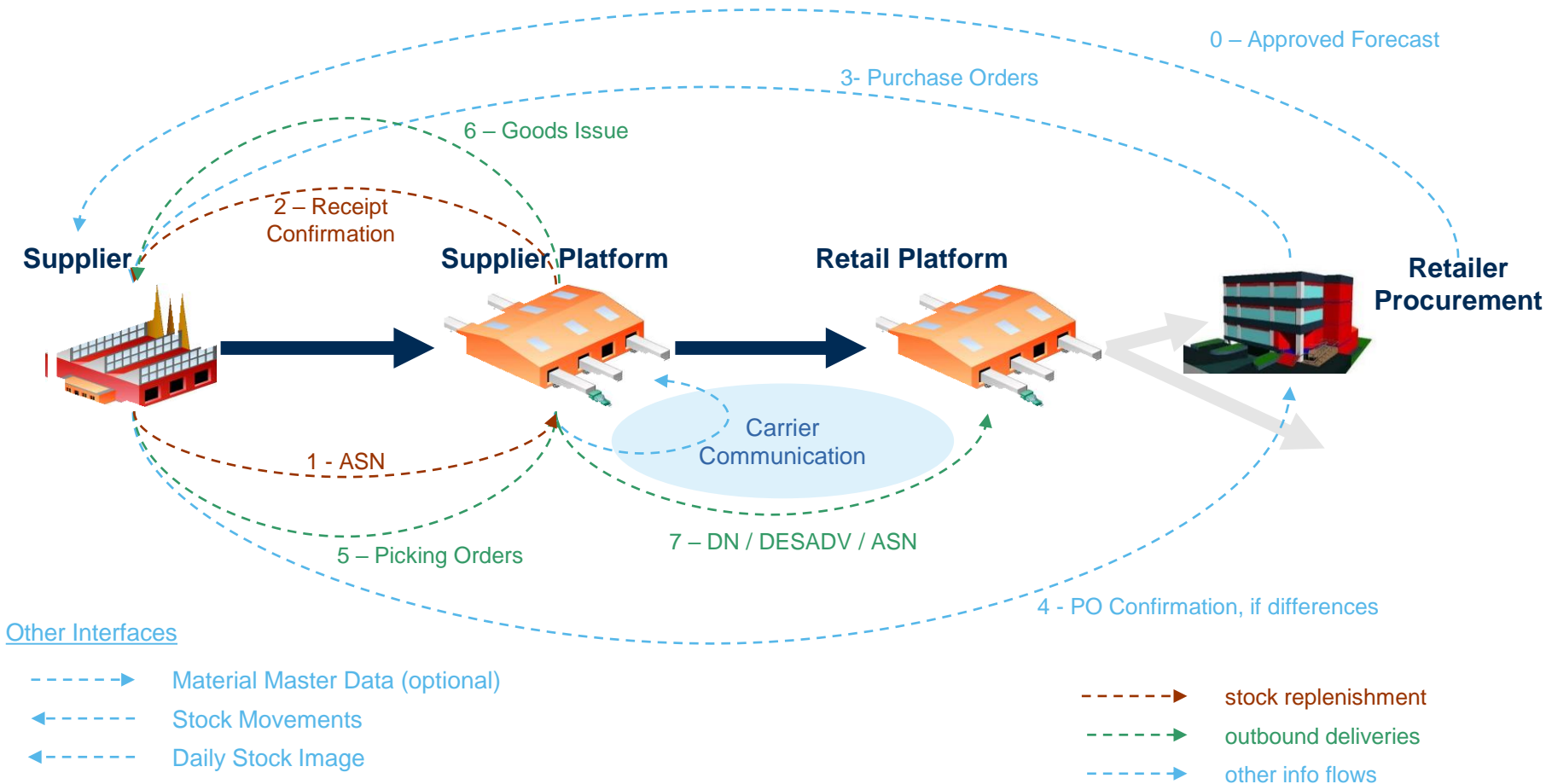


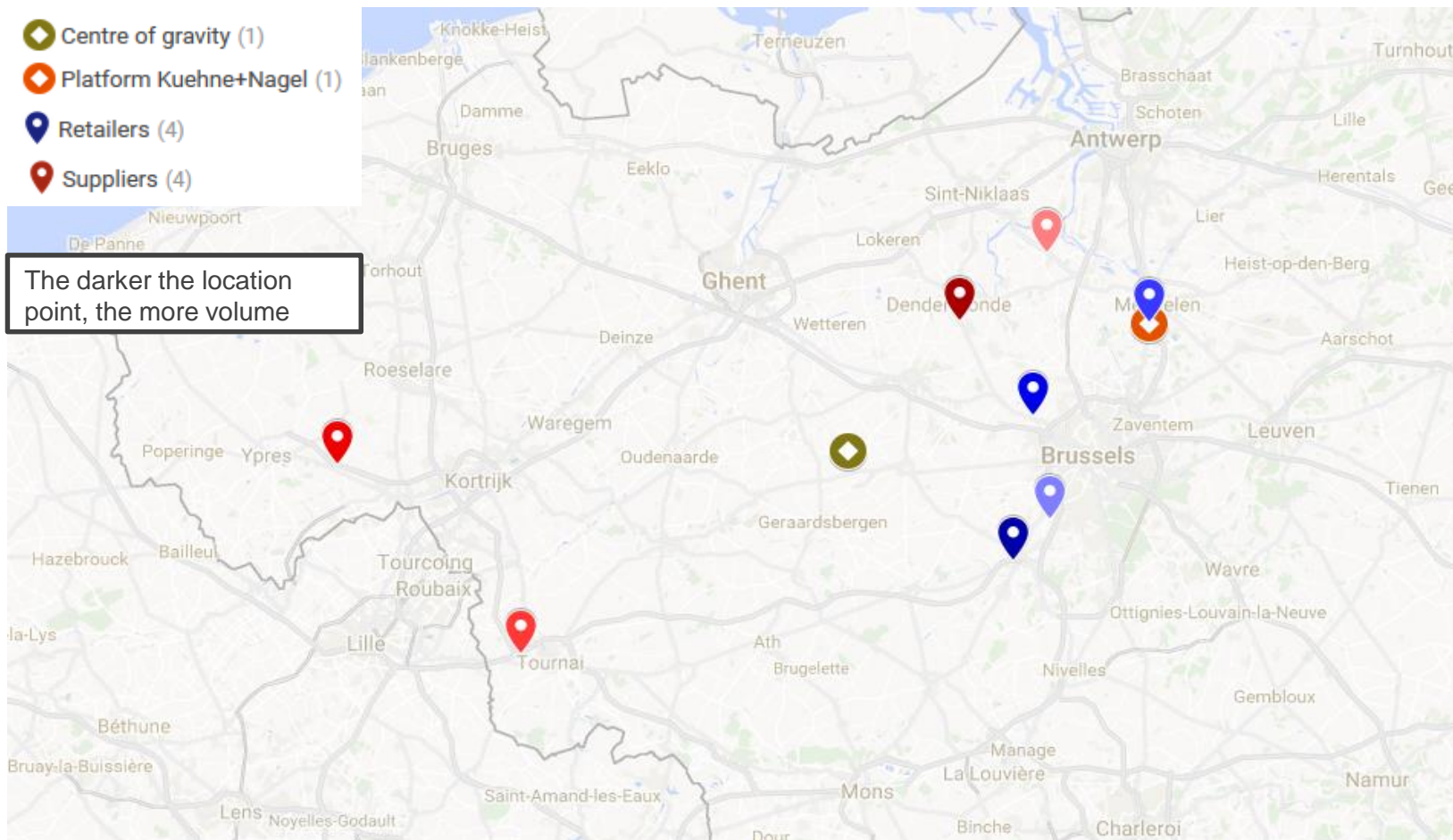
Trustees: TRI-VIZOR, Giventis

Legal partner: Knepelhout & Korthals

Academic partners: Vlerick Business School, VU University of Amsterdam

Pilot | Information Flows





Additional results of the pilot

GLEC		
	No platform	MSMRP
Period	2016: week 10-11-12-13	2017: week 10-11-12-13
Total pallets	1.008	982
Total weight	273.421	266.190
Number of trips	65	32 (IN) + 35 (OUT)
Avg distance (in KM)	72	115
Avg load fill rate	48%*	91%**
CO2 IN	/	2613
CO2 OUT	/	1254
CO2 total	2.848	3.867
CO2 per KG	0,010	0,015
CO2 per pallet	2,83	3,94

* Does not take into account possible other loads in groupage shipments

** Including rush orders (no stock at the platform): 2 inbound + 2 outbound (93% is the avg. load fill without rush orders)

Sensitivity of the results

- Use of transport staggers: up to 55% savings
- Gain when moving to center of gravity: up to 10% savings
- ...

What we learned from the pilot

- Feasibility
- How Orchestrate & Operate could work
- Retailers and suppliers are able to work together
- Other companies were interested
- Identification of relationships and balances among the different cost components
- Some findings: locations of consolidation centre

What we didn't learn from the pilot

- How the MSMRP can become profitable?
 - Therefore we need a calculation model for detailed simulations in the first place, following these principles:
 - Profitability will be determined through a total supply chain cost concept
 - Profitability should be guaranteed for every stakeholder of the platform

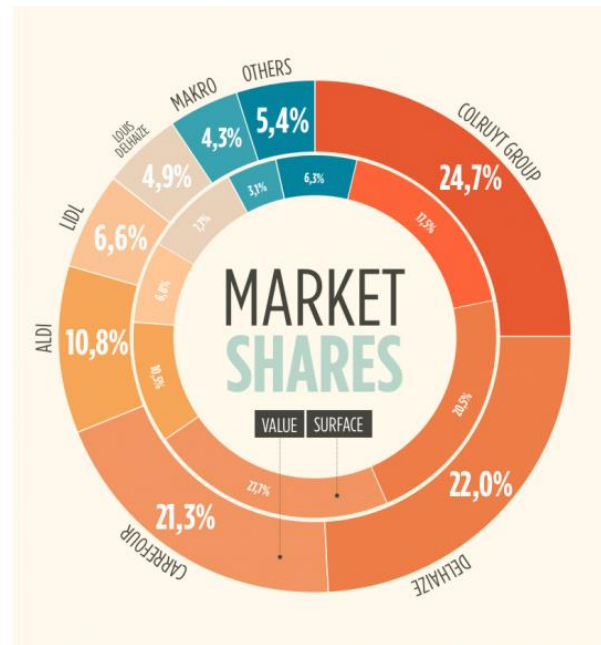
Calculation model

- Will be used to simulate scenarios that might lead to profitability of the MSMRP
- To calculate realistic business cases. This requires realistic transportation and warehousing costs of the participants
- To include cost structures that consider scale effects

Calculation model

- Will be used to simulate scenarios that might lead to profitability of the MSMRP
- These scenarios include:
 - Scenario 1: Effects of more retailers and suppliers
 - Scenario 2: Effects of expanding the categories
 - Scenario 3: Effects of expanding the number of consolidation centres
 - Other suggestions?

Additional Retailers



Source: Gondola Retail 2015

A first rough test with 40 cookie suppliers (assumptions to be validated)

Consolidation center 1 - Center of gravity location					
CC1 Total Volume (Pallets)			Time Period		
67.099			1 Year		
AS IS (Without Supplier's platform)			TO BE (With Supplier's platform)		
Transport cost	€	491.618,16	Transport cost	€	333.993,73
Warehouse cost	€	3.439.662,23	Warehouse cost	€	2.707.432,51
Handling cost	€	177.669,73	Handling cost	€	378.966,73
Extra cost	€	-	Extra cost	€	5.000,00
Total cost	€	4.108.950,11	Total cost	€	3.425.392,97
Total cost per pallet	€	61,24	Total cost per pallet	€	51,05
CO2 eq/pallet (kg/pallet)			CO2 eq/pallet (kg/pallet)		
6,32			6,09		
Check Input Data for CC1				Savings %	16,6%

Next steps

- Acquiring and analyzing the datasets from retailers
- Analysis of scenarios
 - Calculating business cases for interested retailers
 - Calculating business cases for interested suppliers
- Workout Operate & Orchestrate concept
- Final recommendations
- Reporting
- Setup of the permanent platform

Thank you !