

Welcome to the Urban Logistics Academy

Evolution of delivery
fleets in changing
urban environments

2 March 2023, 11:00-12:30 CET

Hosted by Lukas Marthaler and Rosa van Gestel
(Bax & Company)

*This project has received funding from the European Union's Horizon 2020
research and innovation programme under grant agreement No 101006943.*



Your hosts today



Rosa van Gestel
Bax & Company
Urban environmental
management
Land use planning
Urban mobility



Lukas Marthaler
Bax & Company
Systems thinking
Technological
innovation
Transport & logistics



Your speakers today



Joris Beckers

Research professor
Economic
Geography and
Urban Logistics
University of
Antwerp



Ron van Duin

Research professor
Port and City
Logistics, TU Delft,
Rotterdam
University of
Applied Sciences



Francesca Miazzo

Co-founder and CEO
FOODLOGICA,
Managing Director
CITIES Foundation



Before we begin...



We encourage everybody to **turn on their camera**



Please **keep your microphone muted** until we give you the floor, to avoid background noise



Please **raise your hand** or **write in the chat** if you have a question



URBANIZED

MODULAR AND FLEXIBLE SOLUTIONS FOR URBAN-SIZED
ZERO-EMISSIONS LAST-MILE DELIVERY & SERVICES VEHICLES

Thank you!



URBANIZED

MODULAR AND FLEXIBLE SOLUTIONS FOR URBAN-SIZED
ZERO-EMISSIONS LAST-MILE DELIVERY & SERVICES VEHICLES

URBANIZED project

- **Introduction**
- Today's webinar
- Joris Beckers
- Ron van Duin
- Francesca Miazzo
- Panel discussion

URBANIZED aims to develop an **adaptable and modular electric LCV** which will solve the trade-offs between *one size fits all* and *design for purpose* providing cities and operators **sustainable last mile delivery solutions**

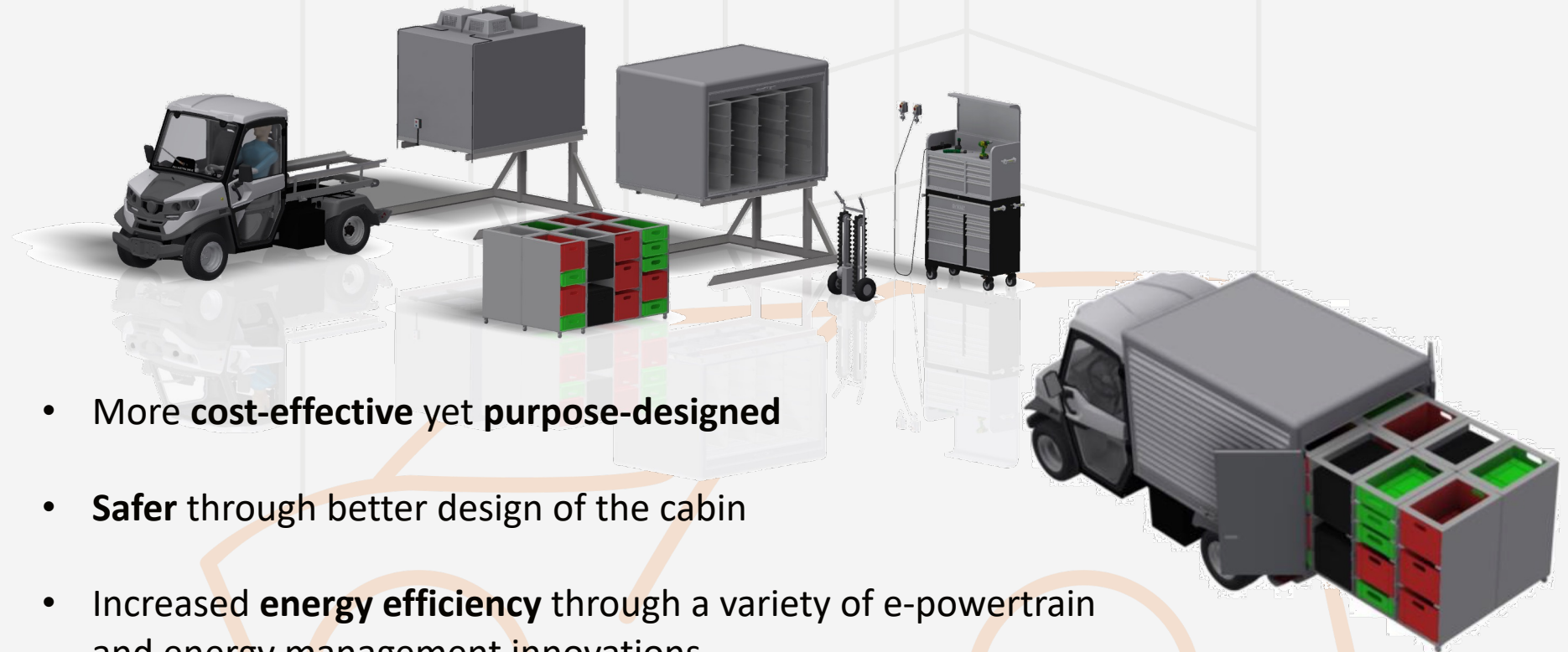


URBANIZED

MODULAR AND FLEXIBLE SOLUTIONS FOR URBAN-SIZED
ZERO-EMISSIONS LAST-MILE DELIVERY & SERVICES VEHICLES

Enabler of the urban logistics transformation

- **Introduction**
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- More **cost-effective** yet **purpose-designed**
- **Safer** through better design of the cabin
- Increased **energy efficiency** through a variety of e-powertrain and energy management innovations

Representing...



URBANIZED

MODULAR AND FLEXIBLE SOLUTIONS FOR URBAN-SIZED
ZERO-EMISSIONS LAST-MILE DELIVERY & SERVICES VEHICLES



Spain

Applus+ IDIADA
Bax & Company



Italy

Alkè



Belgium

VUB
CLEPA
bpost



Netherlands

TNO



Germany

VITESCO



Greece

CERTH



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ZERO-EMISSIONS LAST-MILE DELIVERY & SERVICES VEHICLES

Urban Logistics faces challenges

- **Introduction**
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- Panel discussion

In urban areas, freight is responsible for
15-25% of all vehicle km
travelled

20-40%
of urban transport related CO2
emissions

and occupies
20-40%
of motorised road space
(Smart Freight Centre)

30-50%
of other transport related
pollutants (PM, NOx)
(ERTRAC)



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ZERO-EMISSIONS LAST-MILE DELIVERY & SERVICES VEHICLES

Next up in the Urban Logistics Academy

- **Introduction**
- Today's webinar
- Joris Beckers
- Ron van Duin
- Francesca Miazzo
- Panel discussion



Urban
logistics and
land use



Interested in upcoming
webinars and insights?



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- **Introduction**
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How much do you already know, and what would you like to learn today?



Interested in upcoming webinars and insights?



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MODULAR AND FLEXIBLE SOLUTIONS FOR URBAN-SIZED
ZERO-EMISSIONS LAST-MILE DELIVERY & SERVICES VEHICLES

Today's webinar

Evolution of delivery fleets in changing urban environments

- Introduction
- **Today's webinar**
- Joris Beckers
- Ron van Duin
- Francesca Miazzo
- Panel discussion

- Innovative delivery vehicles are entering the market
- To what extent do they match use cases?



Interested in upcoming webinars and insights?



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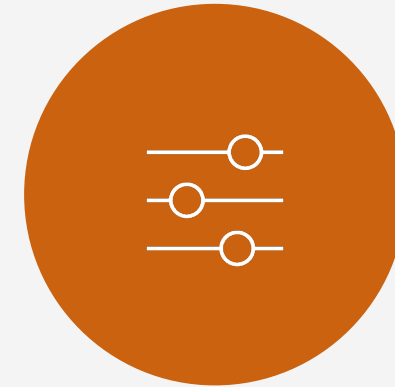
EXTERNAL

E.g., policies,
integration into
traffic, charging
infrastructure



BUSINESS

E.g., time critical
deliveries, high
utilisation rate,
willingness to use



OPERATIONS

E.g., high drop
densities, small
payloads, low
average speed



Interested in upcoming
webinars and insights?



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Today's webinar

- Introduction
- **Today's webinar**
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- Panel discussion

Speaker	Topic
Joris Beckers (University of Antwerp)	Fragmented urban freight demand and receiver-driven consolidation
Ron van Duin (TU Delft and RUAS)	Explaining the growth of light electric vehicles in urban logistics
Francesca Miazzo (FOODLOGICA)	Perspective of FOODLOGICA, an all-electric logistic operator
All	Panel discussion



Interested in upcoming webinars and insights?



GRATIS LEVERING AAN HUIS

Fragmented urban freight demand and receiver-driven consolidation

Joris Beckers

Professor economic geography and urban logistics

Universiteit Antwerpen



Urban logistics research @ TPR

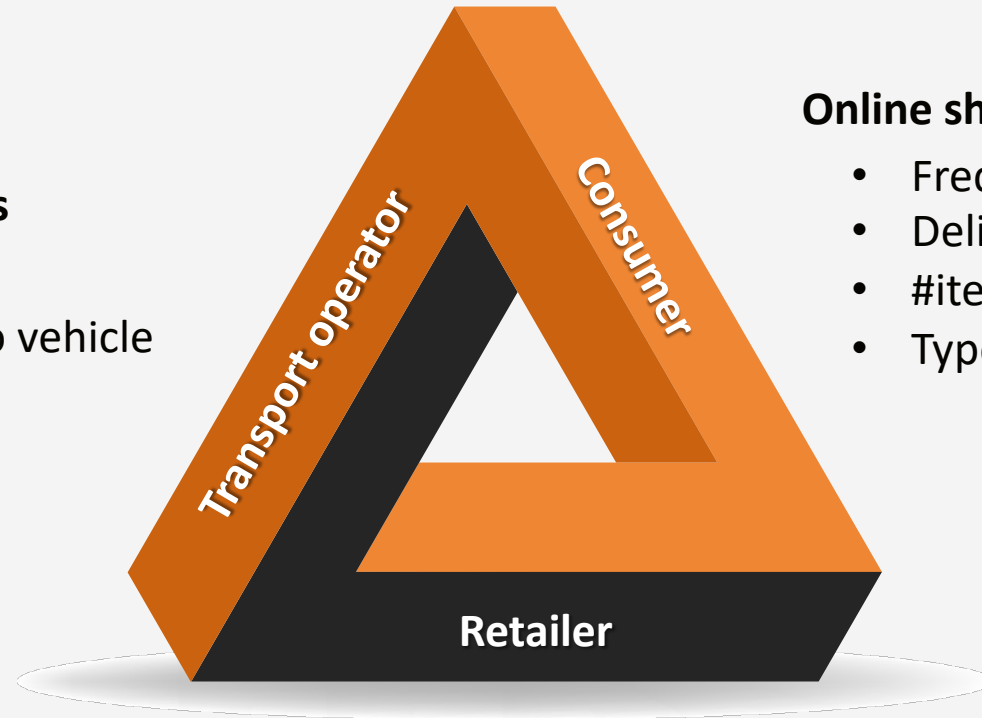
- ***Sustainable Transport and Logistics***
- ***R!sult*** - Responsive Sustainable Urban Logistics
- ***GreenLog*** - Cooperative and Interconnected Green delivery solutions towards an era of optimized zero emission last-mile Logistics
- Summer School on Urban Logistics

E-commerce the receiver as decision maker



Transport decisions

- From # parcels to trips
- Allocation of receivers to vehicle
- Vehicle mode



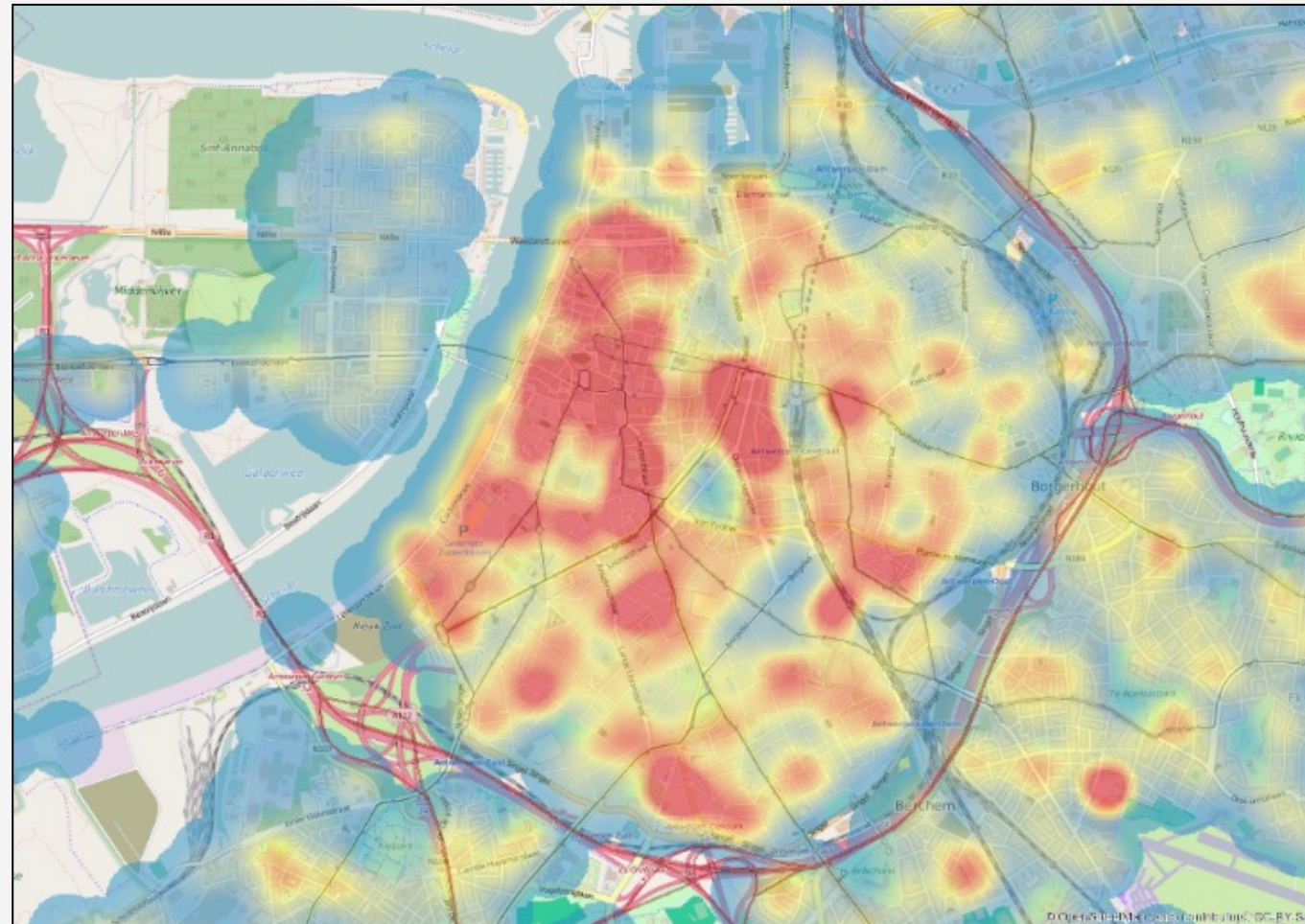
Online shopping behaviour

- Frequency
- Delivery location
- #items and goods
- Type of goods

Logistics decisions

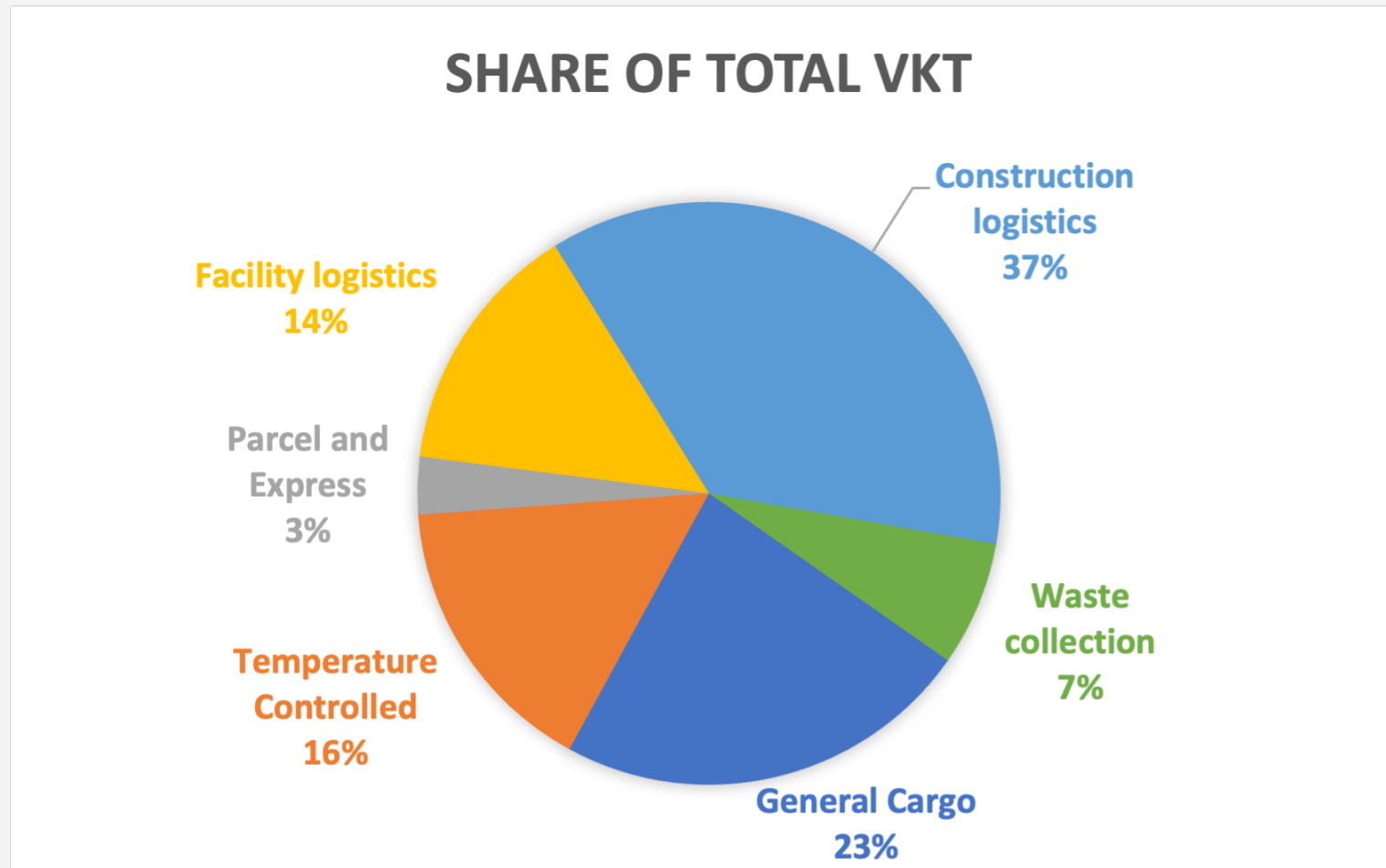
- From #orders to #parcels
- Fulfillment center
- Delivery consolidation

E-commerce: fragmented landscape



Density of B2C deliveries at address level in a 3-month period by 1 carrier

E-commerce the tip of the iceberg



Source: Dept. Transport and Regional Economics, 2020

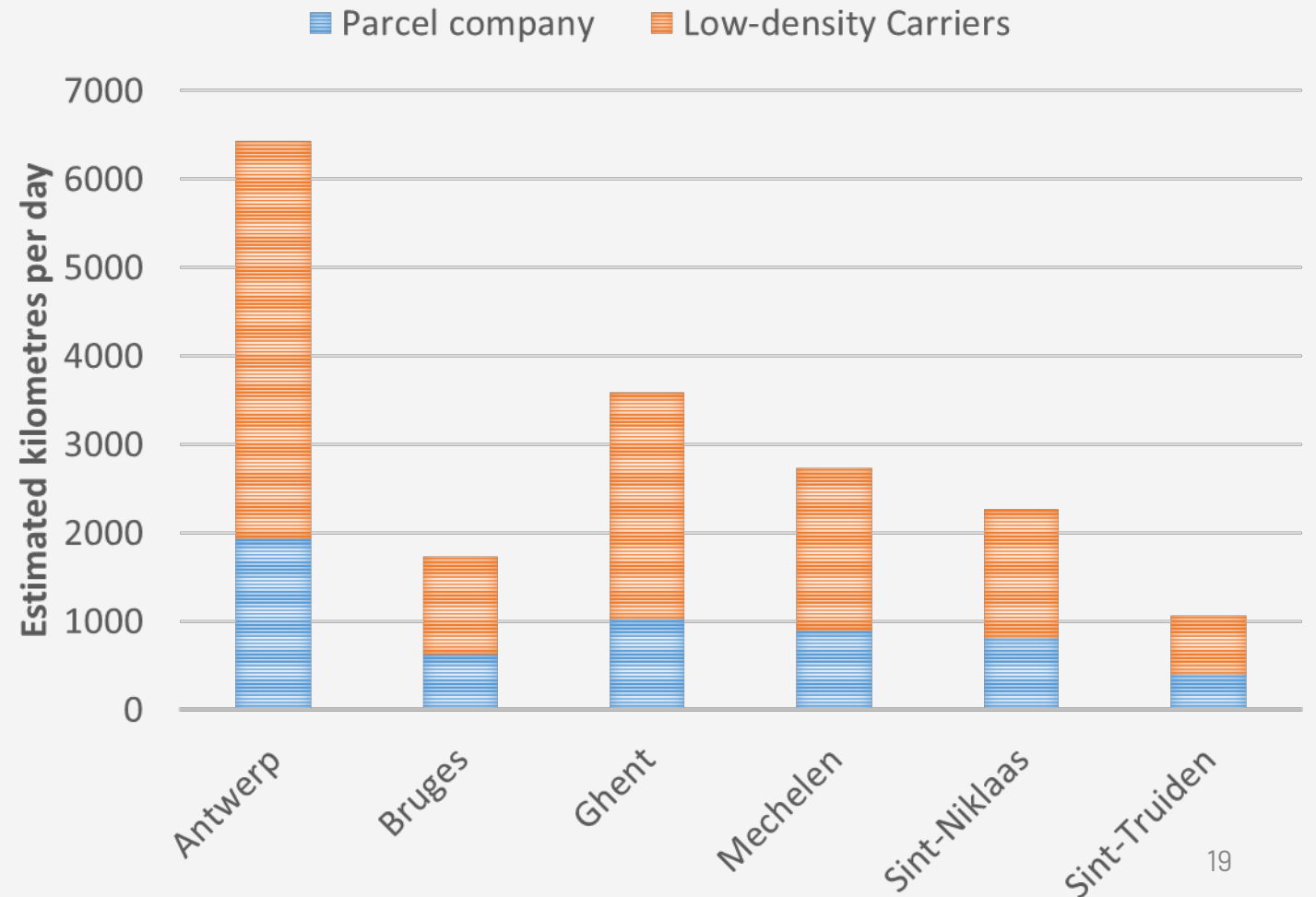
Low density carriers – low hanging fruit for urban freight optimization

FEW

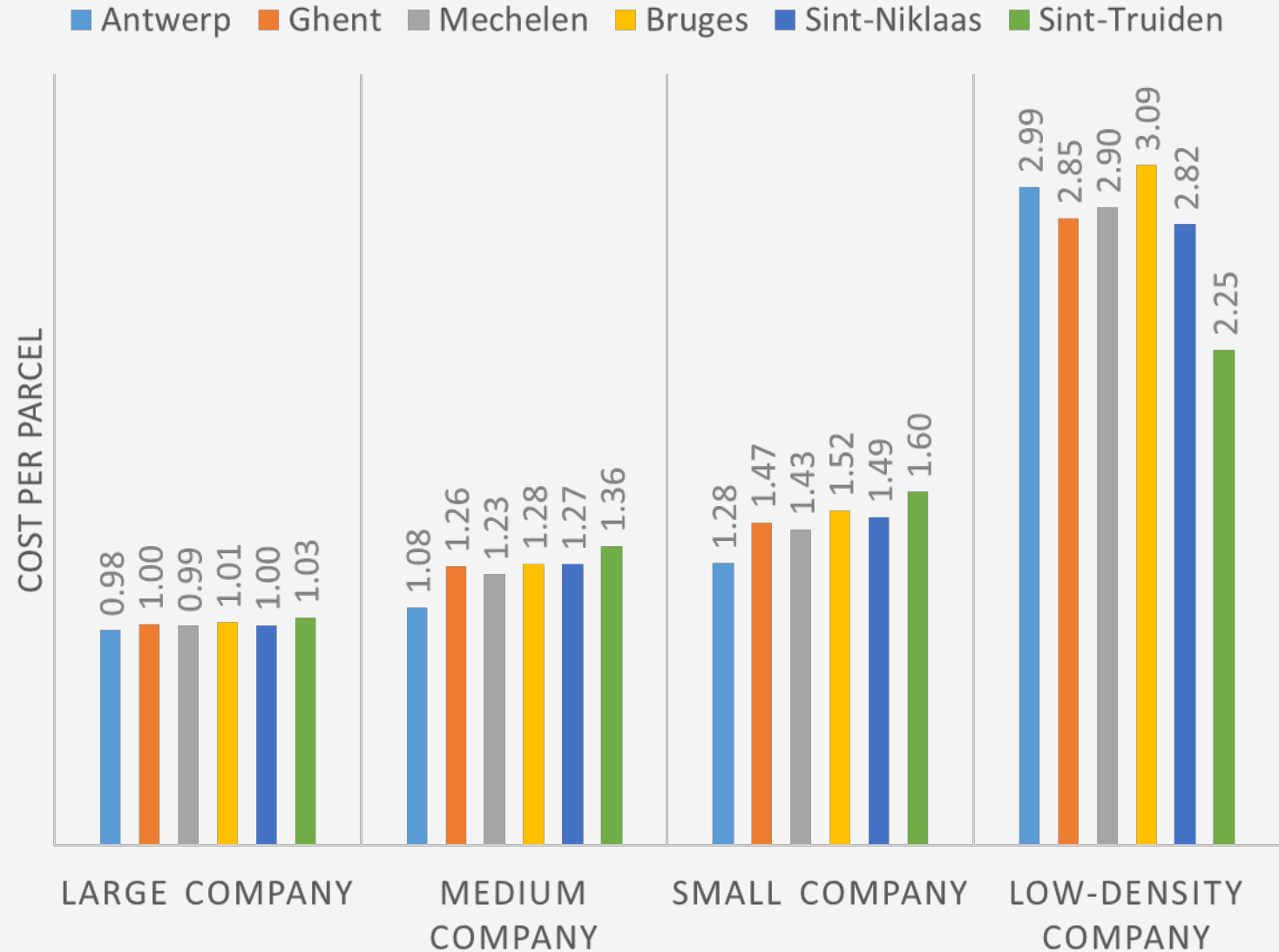


MANY

Group	Individual share of the market per company	Total share of the group
Large parcel company	40%	40%
Medium parcel company	10%	20%
Small parcel company	5%	20%
Low-density companies	Less than 1%	20%



Low density carriers – low hanging fruit



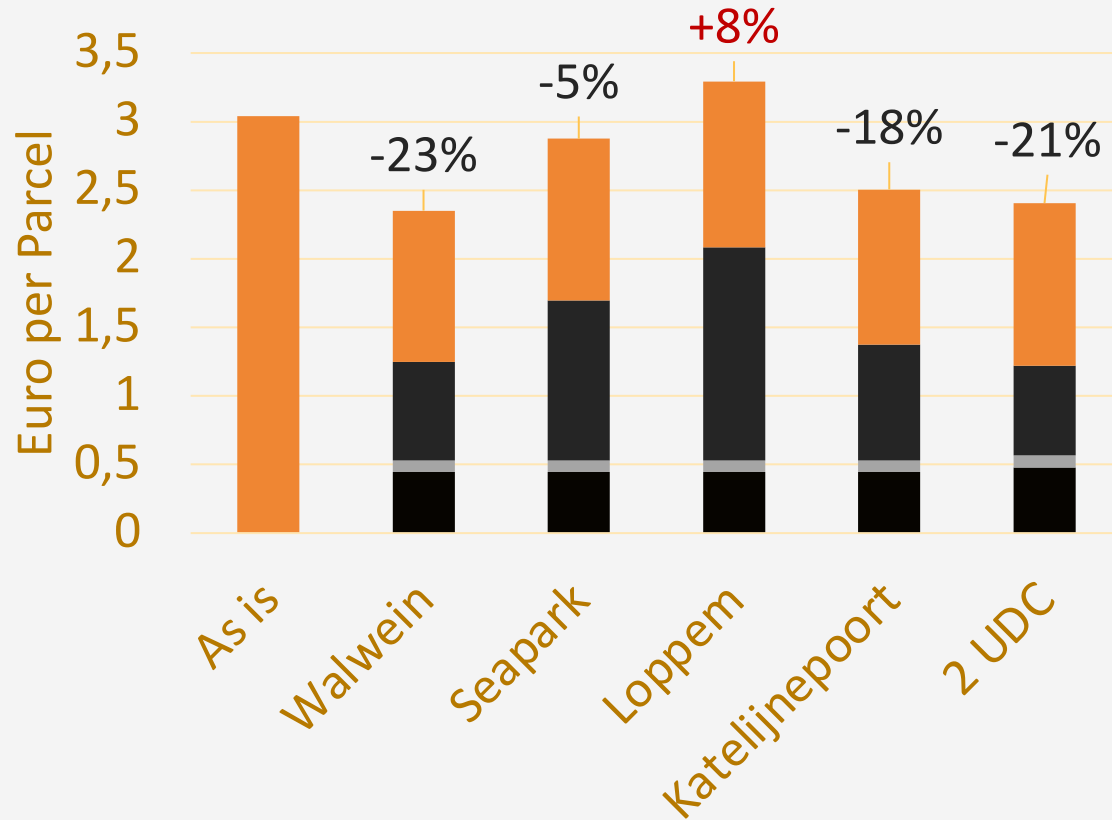
Example scenario

- Urban distribution center (UDC) outside the city
- Example: Bruges



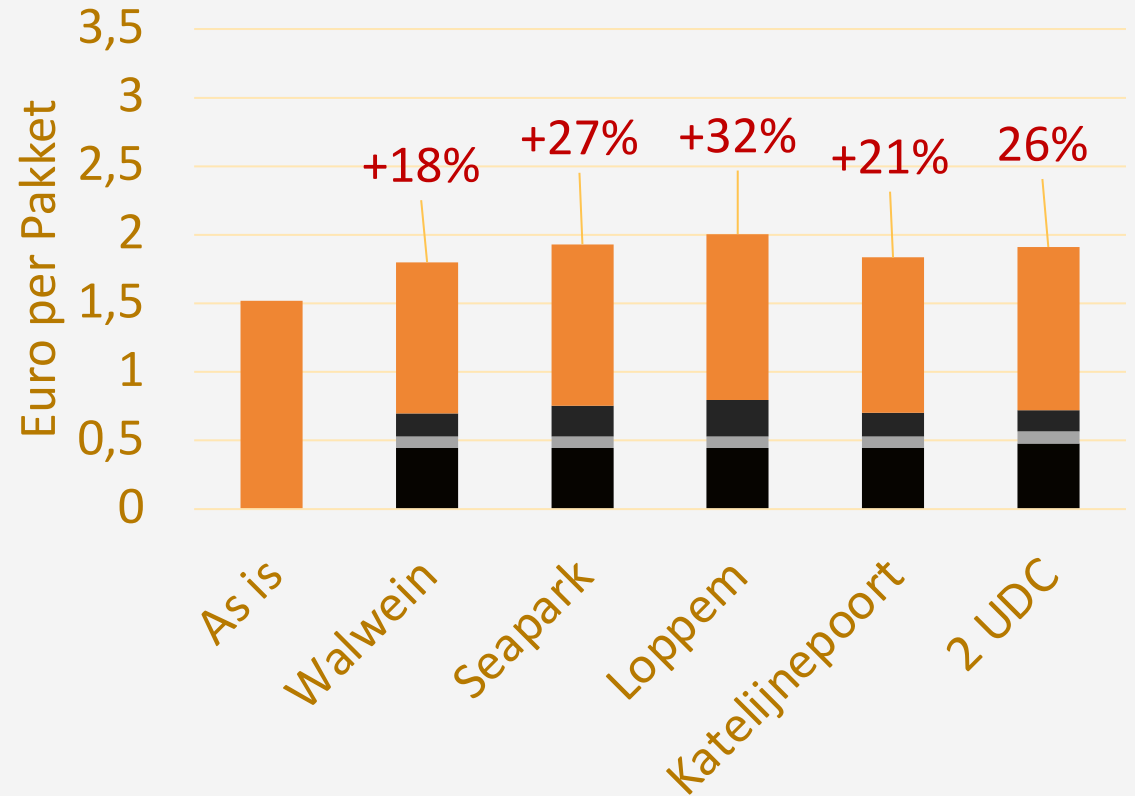
Example Bruges

Low density carrier



- Handling
- Line haul
- Infrastructure
- Last mile

Small parcel company

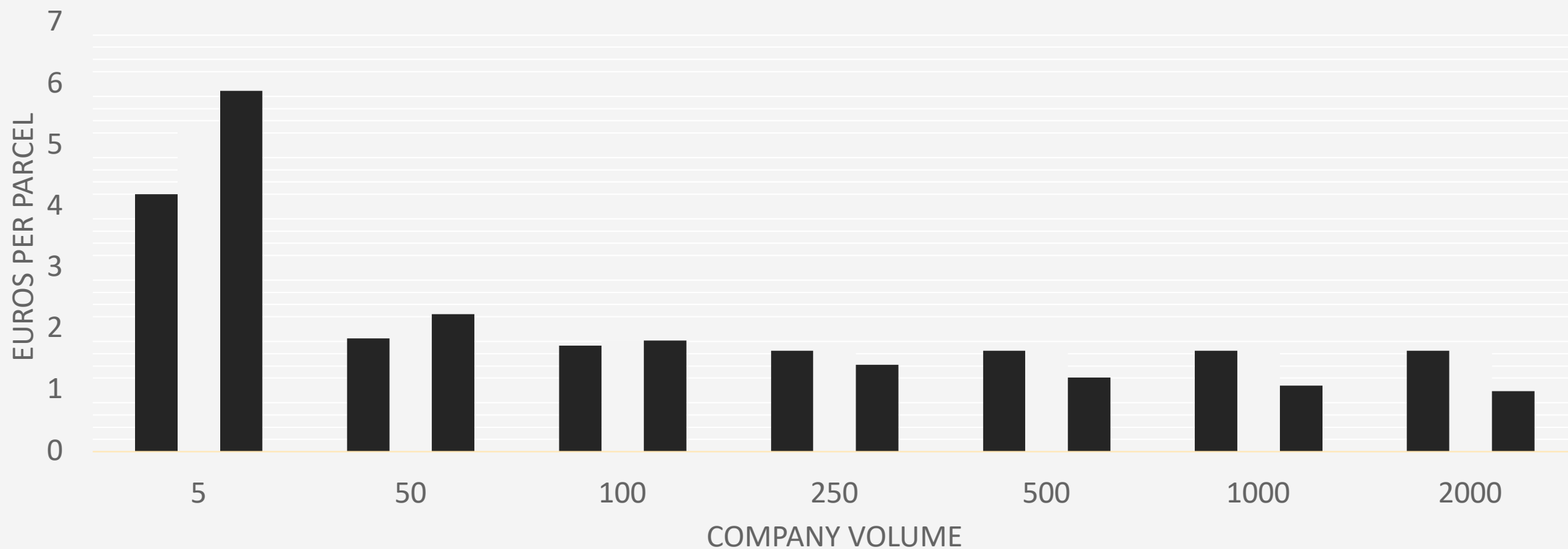


- Handling
- Line haul
- Infrastructure
- Last mile

Results: Impact of scenarios on costs

ABSOLUTE DIFFERENCE IN COSTS (€)

■ 1 Microhub ■ 2 Microhubs ■ Baseline



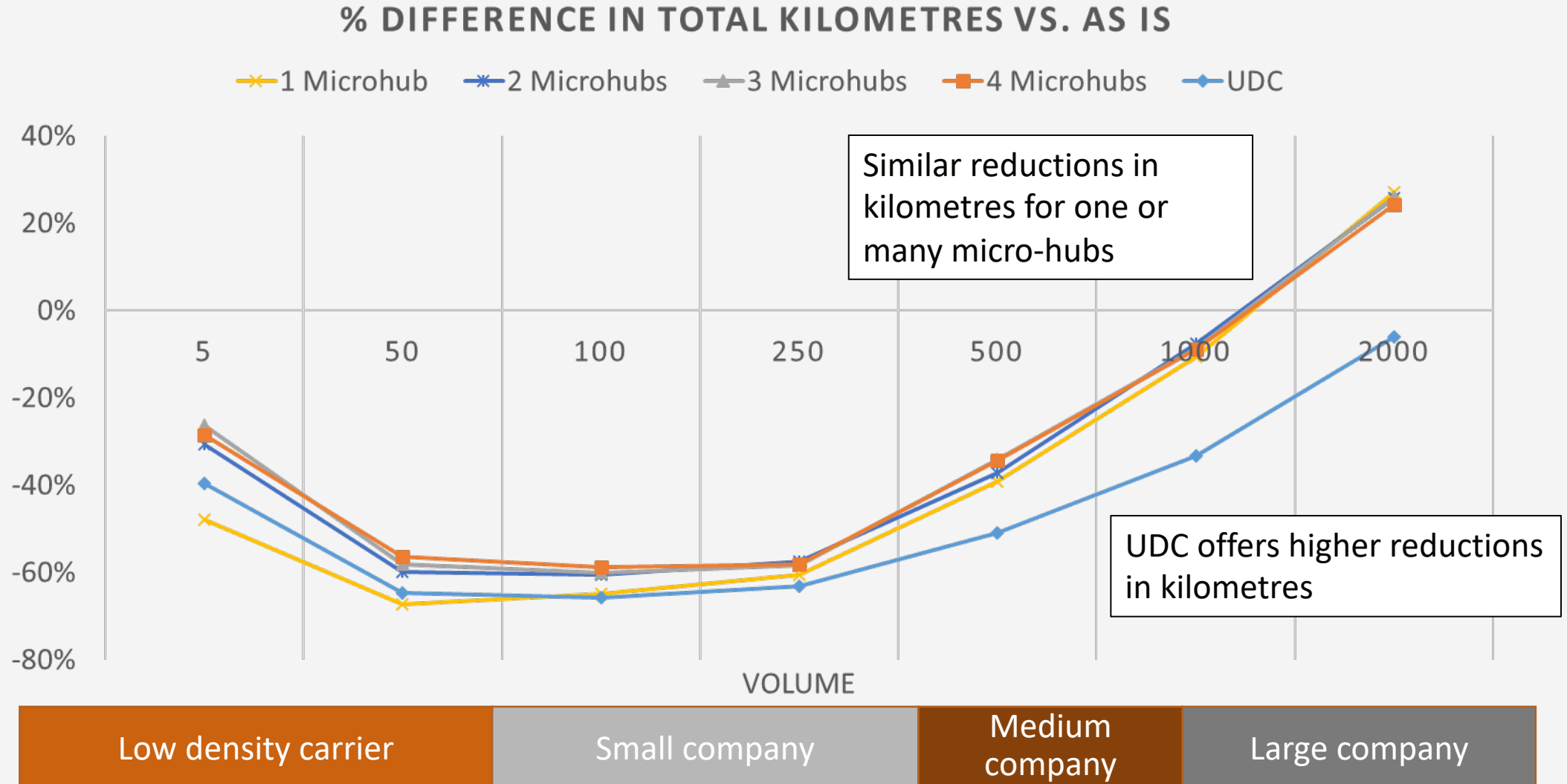
Low density carrier

Small company

Medium company

Large company

Results: Impact of scenarios on total kilometres



Conclusions

- The urban freight landscape is getting increasingly fragmented
 - E-commerce as the tip of the iceberg
 - On-demand economy
 - Consumer-driven consolidation
- Opportunities for more sustainable transport exist for low density carriers:
 - Highest reduction in driven kilometers
 - Valuable economic model
- Proximity and zero-emission as planning concepts enforce opportunities
 - The 15'-city requires clustered logistics + new vehicles

LOVE the LEFVs

The potential of Light Electric Freight Vehicles in urban logistics

Professor Ron van Duin
Rotterdam University of Applied Sciences/CoE HRTech
Delft University of Technology/TPM
J.H.R.van.Duin@hr.nl

Webinar Urbanized, 02-03-2023



URBANIZED

MODULAR AND FLEXIBLE SOLUTIONS FOR URBAN-SIZED
ZERO-EMISSIONS LAST-MILE DELIVERY & SERVICES VEHICLES



Today's urgency in our cities

Only 671 days



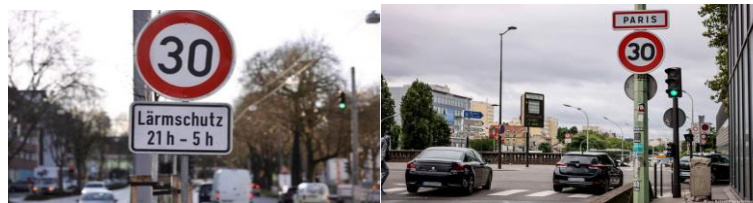
40 MUNICIPALITIES WILL HAVE A **ZES-ZONE** IN THE NETHERLANDS (2025)

Less space



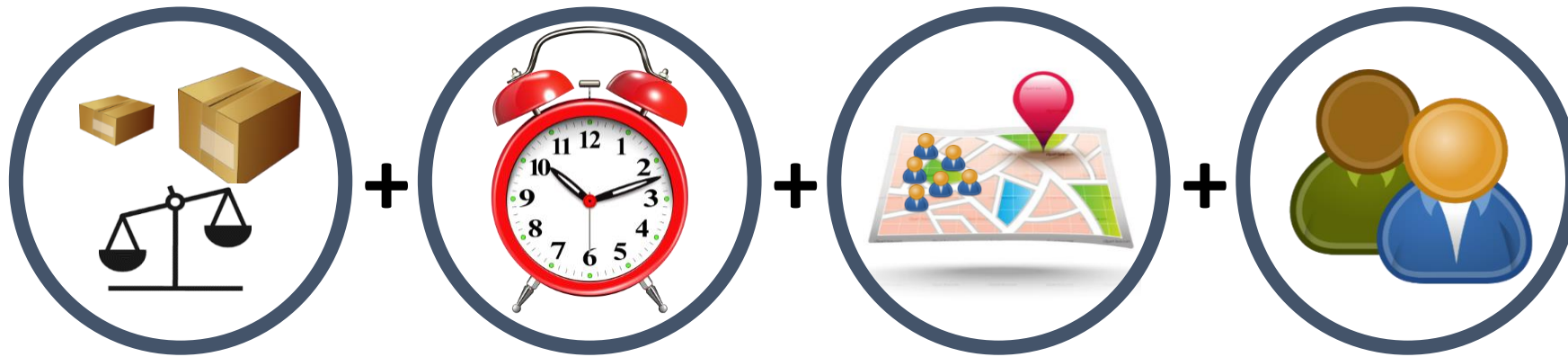
ROTTERDAM INNER CITY, CREATING A **CITY LOUNGE** FOR ALL. BARCELONA, MILAN

Speed Limit



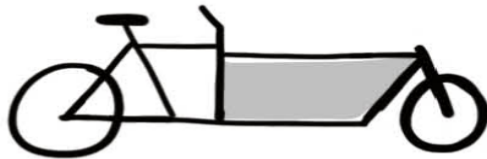
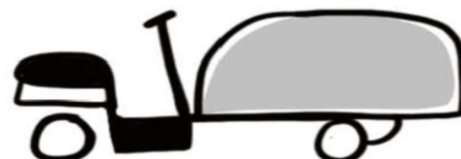

TEMPO 30 IN AKEN, AUGSBURG, FREIBURG, BREISGAU, HANNOVER, LEIPZIG, MÜNSTER & ULM
PARIS

Potential Goods



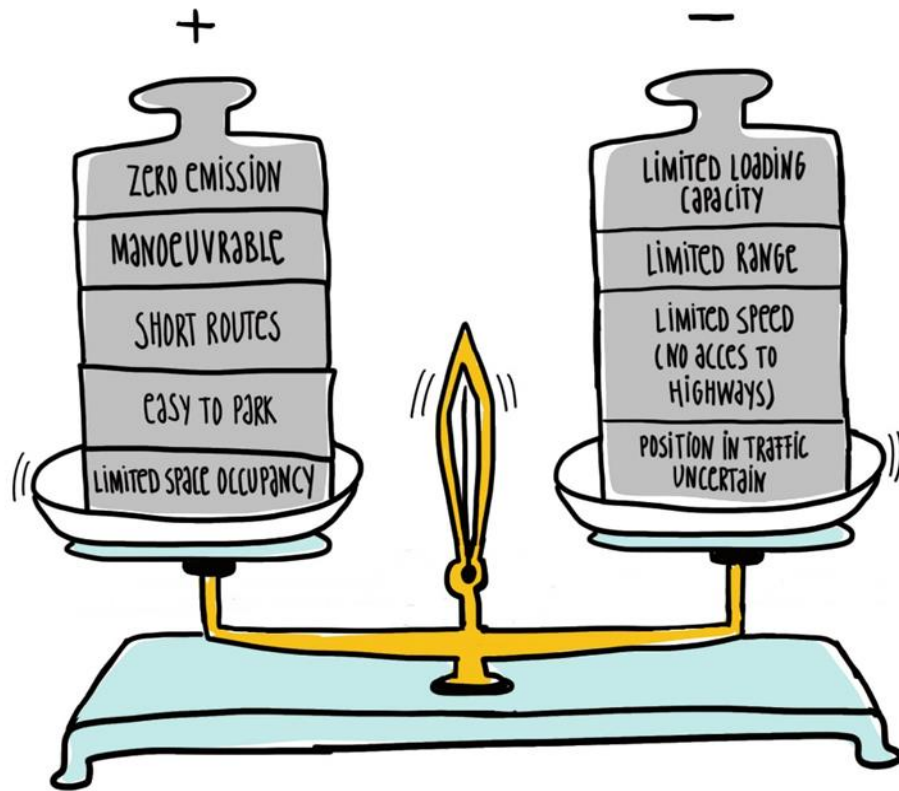
Most of the transports are business to business deliveries in the construction and food sectors.

Types of LEFVs (Balm et al., 2018)

	Electric cargo bike	Electric cargo moped	Small electric distribution vehicle
Loading capacity	50 – 350 (kg)	100 – 599 (kg)	200 – 750 (kg)
Vehicle weight	20 – 170 (kg)	50 – 600 (kg)	300-1000 (kg)
			



LEFVs Pros & Cons



- +
 - In terms of energy, the cargo bike is cheaper than an electric van (less dead weight)
 - 20 to 30 percent cheaper than those of the traditional delivery
 - bicycle routes in cities are on average 15 to 20 percent shorter than car routes
 - Delivery times can be up to 30% faster
 - Bicycles can be driven by anyone
- - Hub dependency (influences the business case)
 - Uncertainty regulations

LEFVs New developments (a)

- **Many suppliers of LEFV** Buy, Rental, Sharing
- **Full Service Concepts** **One stop shop concept:** insurance, periodic maintenance, and replacement transport are included (500km per day!)
Close cooperation with automotive industry
(OEMs: Renault Trucks, Dupont)



- LEFVs become equipped with **IoT (Track trace of drivers, equipment, and load)**
- **LEVA-EU** guides LEV-companies through the maze of rules and regulations governing the vehicles
- European Cyclists' Federation (ECF), there are almost **300 tax-incentive and purchase-premium schemes for cycling** offered by national, regional and local authorities across Europe.
(Subsidieregeling Emissieloze Bedrijfsauto's (**SEBA**))



LEFVs New developments (b)

- **Bigger volumes and higher radius**



Trens-solar-trains

- **Hyperconnected City** combining the fields of city logistics and the **Physical Internet** in which a scalable distribution structure is developed based on standardization of loading units (PI-containers) and information exchange (Crainic and Montreuil (2016)).



Cubicycles (Velove Armadillos) (1000L)



Cargo Cycling's designers



Chariot (1500L)

LEFVs New developments (c)

URBANIZED aims for future proof urban-readiness by solving the trade-offs between “*one size fits all*” and “*design for purpose*” approaches to sustainable last-mile delivery in the design of modular all-electric LCVs. We develop and demonstrate the next generation of modular vehicle architectures for urban-sized commercial e-vehicles, satisfying design principles of optimisation and right-sizing vehicles for their mission.

In line with the principles of PI, one size fits all (uniform traffic regulations!!)

Webinar

Connection with ALICE

Case-studies

More exposure at internal conferences like (ICL, WCTR, TRB, PI)



Want to know more.....

van Duin, J. H. R., Ploos van Amstel, W., & Quak, H. (2022). Explanation of the growth of light electric freight vehicles in city logistics. In B. van Wee, J. Annema, & J. Kohler (Eds.), *Innovations in Transport: Success, Failure and Societal Impacts* (pp. 188-220). Edgar Elgar Publishing.

van Duin, R., Moolenburgh, E., & van den Band, N. (2022). Real time Learning with Light Electric Freight vehicles for urban freight distribution: A living lab approach. *Logistiek+, tijdschrift voor toegepaste logistiek*, (12), 38-55.

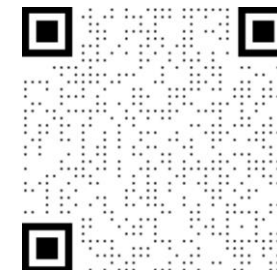
Moolenburgh, E. A., Van Duin, J. H. R., Balm, S., Van Altenburg, M., & Van Amstel, W. P. (2020). Logistics concepts for light electric freight vehicles: A multiple case study from the Netherlands. *Transportation Research Procedia*, 46, 301-308. <https://doi.org/10.1016/j.trpro.2020.03.194>

Van Duin, J. H. R., Tavasszy, L. A., & Quak, H. J. (2013). Towards E(lectric)-urban freight: First promising steps in the electric vehicle revolution. *European Transport - Trasporti Europei*, (54).



Please contact me

j.h.r.van.duin@hr.nl



Yes, We  the LEFVs





STRESS-FREE
LAST MILE SOLUTIONS

FOODLOGICA

URBAN ARROW

You're receiving this newsletter because you signed-up online or at one of our events to receive it from us.
Not interested anymore? [Unsubscribe](#) Having trouble viewing this email? [View it in your browser](#)



REMINDER: THIS SATURDAY – FIRST-EVER, ONE-TIME OLD AMSTERDAM FOOD MARKET

With support from Stadsdeel Centrum, We have redesigned the **Old Amsterdam Food Tour** for 2014! This year, 10 select local entrepreneurs are featured on the tour, presented on an informative, nice new map! (More on the new Old Food Tour here). To kick-off this new season, we are hosting an Old Amsterdam Food Market for one day only in Amsterdam Centre!

Saturday, April 12th in the city centre – taste, prepare, learn and share while re-discovering your relationship with local

food traditions at the **Old Amsterdam Food Market**, where workshops featuring local entrepreneurs will treat you and teach you, from a time when food was the very core of the city public life.

Be ready to discover unimaginable ingredient combinations and edible items you did not know existed.

DON'T MISS OUT: Bake your own bread with **BROOD!** For FREE in a 30-minute workshop, you will learn by doing – preparing your own handmade yeast bread, available for pickup fresh out of the oven that day! There is only room for 10 people – you must register! To reserve your place, email anke@farmingthecity.com and we will send you a ticket!

The **Old Amsterdam Food Market** is supported by Stadsdeel Centrum and organized in collaboration with the Flemish Cultural Center, the **Brakke Grond**, following the

framework of their historical exploration exhibition "**Arbeid van de Dag**" (Labor of the Day), which explores new innovations looking into the labor of today and the future.

ENTREPRENEURS

Metropolitan Deli
Most spectacular chocolates and ice cream.

Vleesch Noch Visch
Refreshingly fresh vegetarian dishes.

Keuken van het Ongewenste Dier
Getting creative and sustainable, sourcing, prepping and serving deliciously 'edible pests'.

De Pasteibakkerij
Old-fashioned methods of pig and other meat preparations

De Smaak te Pakken
Mobile cooking laboratory focusing on youth educational programs and strengthening the relationship with real food, bodies and environment.

BBROOD
Bread in beautiful, pure simplicity: handmade, baked and enjoyed with pleasure in Amsterdam and Uganda.

Brouwerij de Prael
Microbrew beer made according to tradition, in a brewery/shop/ tasting room of rich history in one of the oldest areas of the city.

Frank's Smoke House
'Very honest food freaks', these guys smoke just about everything (meats and fish), using top-quality ingredients and traditional, sustainable, small-scale and local practices.

Meat the Mushroom
A young company in Amsterdam Noord, developing new mushroom-based meat substitutes with tasty, sustainably grown specialty varieties.

CONNECT PROGRAM

Use Facebook? Join the event online at this [link](#).

LOCATION

Nes 45, 1012 KD Amsterdam, at de Brakke Grond

TIME

12th of April 2014, from 12:00 – 17:00

More information [here](#)

13:30 Anke de Vrieze will present the **Old Amsterdam Food Tour** and explain the Market's program

14:00 Diny Schouten of **De Pasteibakkerij** present their way of special way of working, values, motivations and more

14:30 Bbrood FREE workshop – Bake your own yeast bread! 30-minute workshop, fresh bread available for pickup at 16:00! Only room for 10 people – you must register through email – anke@farmingthecity.com – to receive your ticket!

15:00 Sietske Klooster of **Melksalon** will explain her work, offering information on raw milk production, with samples of raw milk from farmers in the Amsterdam region (This workshop is in Dutch only)

15:30 Frank Heyn of **Frank's Smoke House** share the specialties of traditional, top-quality meat smoking



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FARMING

THE CITY



Urban agriculture and growing food

Urban agriculture and growing food

Year	Location	Project Name	Area (sqm)	Production (kg/year)	Notes
2008	London	Growtopia	100	1000	First UK rooftop garden
2009	London	Green Roof	100	1000	First UK rooftop garden
2010	London	Green Roof	100	1000	First UK rooftop garden
2011	London	Green Roof	100	1000	First UK rooftop garden
2012	London	Green Roof	100	1000	First UK rooftop garden
2013	London	Green Roof	100	1000	First UK rooftop garden
2014	London	Green Roof	100	1000	First UK rooftop garden
2015	London	Green Roof	100	1000	First UK rooftop garden
2016	London	Green Roof	100	1000	First UK rooftop garden
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2019	London	Green Roof	100	1000	First UK rooftop garden
2020	London	Green Roof	100	1000	First UK rooftop garden
2021	London	Green Roof	100	1000	First UK rooftop garden
2022	London	Green Roof	100	1000	First UK rooftop garden
2023	London	Green Roof	100	1000	First UK rooftop garden
2024	London	Green Roof	100	1000	First UK rooftop garden

Urban Agriculture

Urban agriculture is the practice of growing food in cities. It can be done in many ways, including rooftop gardens, community gardens, and vertical farms. Urban agriculture can help reduce food miles, improve air quality, and provide a source of fresh, local food.

Vertical Farming

Vertical farming is a type of urban agriculture that grows food in vertically stacked layers. It uses artificial light and controlled environments to grow crops. Vertical farming can be done indoors or outdoors, and it can be used to grow a wide variety of crops, including leafy greens, herbs, and fruits.

Landmarks

Urban agriculture and vertical farming can be used to create landmarks in cities. For example, the Green Roof at the London School of Economics is a landmark building that has been converted into a vertical farm. Other examples include the Green Roof at the University of London and the Green Roof at the British Library.

Urban Agriculture

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Green Roofs

A rooftop garden is a garden that is built on the roof of a building. It can be used to grow a wide variety of crops, including leafy greens, herbs, and fruits. Green roofs can help reduce heat island effects, improve air quality, and provide a source of fresh, local food.

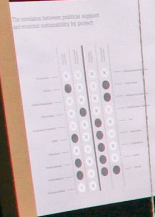
Location examples

- Green Roof at the London School of Economics
- Green Roof at the University of London
- Green Roof at the British Library



Urban agriculture in Amsterdam

The space and layout of the museum allow visitors to explore the history, development and future of urban agriculture in Amsterdam. The exhibition is designed to be interactive and engaging, with a focus on the local food system.



Urban agriculture is a key component of the local food system, providing fresh, healthy food and creating jobs in the city.

Urban agriculture can help to reduce the carbon footprint of the food system and improve the health and well-being of the community.

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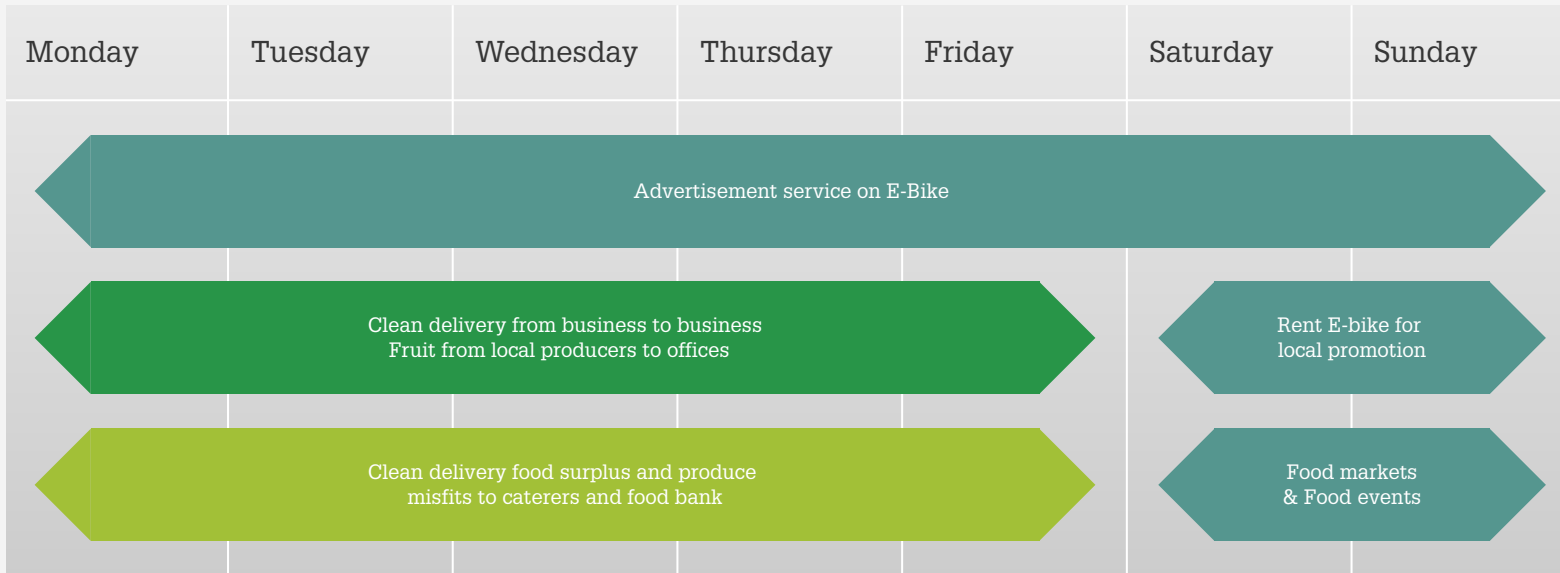
Urban agriculture can help to reduce the carbon footprint of the food system and improve the health and well-being of the community.



SHORT DOCUMENTARY “VOEDSELLOGICA/FOODLOGIC”

from **CITIES** 2 years ago NOT YET RATED

With the project FARMING THE CITY and thanks to the support of Rabobank Amsterdam (VOEDSELVERBINDT AMSTERDAM), together with ZTRDG, CITIES has researched into the logistics of food from the surrounding countryside to the city of Amsterdam. The research focuses on the Horeca sector (Hotel, Restaurants and Cafés) and the possibility to supply them with local food. Local



Voedsellogica heeft voor ieder een passende Deal!

Voedsellogica is interessant voor lokale producenten, horeca ondernemers, cateraars, voedselverwerkers, winkeliers, sociaal-maatschappelijke organisaties en instellingen die deel uit willen maken van een slim netwerk van schone bevoorrading in de stad.

Voedsellogica heeft de volgende deals voor u:

Local Business Deal: de kernactiviteit van VOEDSELLOGICA is het vervoeren van lokale producten aan bedrijven in de stad. Met Local Business Deals voor restaurants, cateraars en kantoren worden uw producten schoon en vers geleverd.



Social Deal: daarnaast versterkt VOEDSELLOGICA de relatie met de lokale gemeenschap. Door Social Deals wordt 'afgekeurd en esthetisch niet volwaardig' voedsel verzameld en worden voedseloverschotten van winkels en horeca opgehaald. Deze overschotten worden gebracht naar voedselbanken en naar bewuste, innovatieve cateraars die het verwerken tot gerechten.

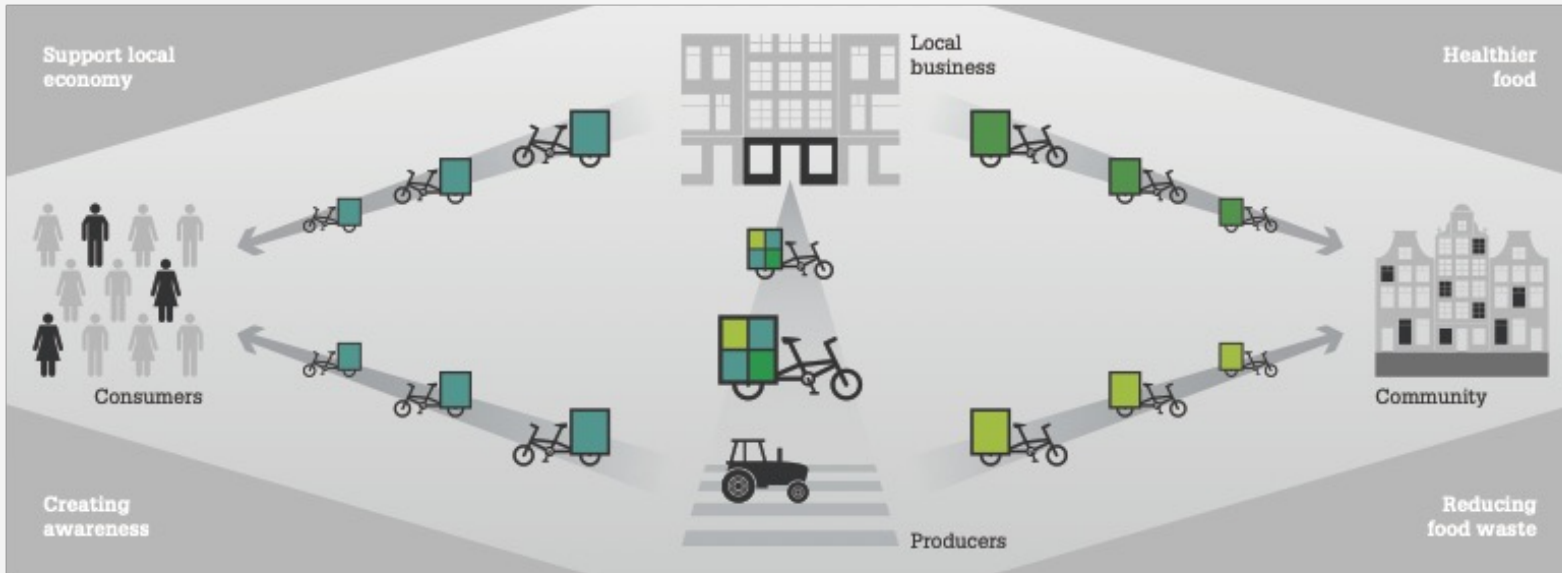
Promotional Deal: VOEDSELLOGICA is ook een mobiel reclamevoertuig waarmee u de zichtbaarheid van uw bedrijf in de stad kunt vergroten. Via Promotional Deals kan reclame worden gemaakt voor uw lokale duurzame producten, evenementen en happenings.

Welke Deal is passend voor u? Voor meer informatie kunt u contact opnemen met: peggy@ciesthemagazine.com



The New Urban Food Cycle





Voedsellogica The New Urban Food Cycle



VOEDSELLOGICA is een netwerk van elektrische vrachtfietsen voor het vervoer van lokaal geproduceerd voedsel in de stad. Hoewel de ontwikkeling van VOEDSELLOGICA voortkomt uit de behoefte een bijdrage te leveren aan een schoner milieu, vormt de VOEDSELLOGICA fiets het middelpunt van een netwerk van verbindingen tussen lokale producenten, het bedrijfsleven, de gemeenschap en de consument, die elkaar versterken.

De kernactiviteit van VOEDSELLOGICA is het vervoeren van lokale producten aan lokale bedrijven, zoals restaurants, cateraars en kantoren.

VOEDSELLOGICA is ook een mobiel reclamemiddel: lokale producenten en bedrijven kunnen hun zichtbaarheid in de stad vergroten en reclame maken voor evenementen, happenings of nieuwe producten.

VOEDSELLOGICA versterkt de relatie met de lokale gemeenschap en richt zich op een nieuwe niche in de markt door het verzamelen van 'afgekeurd' voedsel van boeren (voedsel wat meestal overblijft omdat het niet aan de esthetische normen voldoet) en voedseloverschotten van winkels en horeca. Deze overschotten worden gebracht naar voedselbanken en naar bewuste, innovatieve cateraars die het verwerken tot gerechten.

VOEDSELLOGICA is een kickstart ter ontwikkeling van een Smart Food Grid. Een Smart Food Grid is gebaseerd op het concept van het consumeren van gezonder voedsel, het terugdringen van voedselverspilling, het ondersteunen van de lokale economie en het creëren van sociale verbondenheid. Natuurlijk dient dit alles te gebeuren zonder de uitstoot van uitlaatgassen en ter verbetering van de leefbaarheid in de stad. Door gebruik te maken van voedsellogica, kunnen wij dit realiseren.

Voedsellogica is ontwikkeld door CITIES CITIES (www.citiesthemagazine.com) is een bureau voor onderzoek, communicatie en advies op het gebied van duurzame stedelijke ontwikkeling. Sinds 2009 werkt CITIES aan FARMING THE CITY, een meerjarig project waarin we onderzoek doen naar de impact van lokale voedselinitiatieven en stadslandbouw op onze gebouwde omgeving, economische systemen en sociale verbondenheid.

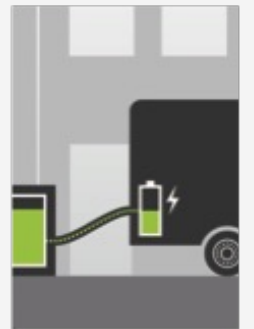
In 2012 deed FARMING THE CITY onderzoek naar de logistiek van lokaal voedsel in de metropoolregio Amsterdam. De resultaten van dat onderzoek werden vastgelegd in een video (<http://vimeo.com/40879300>) en een verslag (<http://issuu.com/citiesthemagazine/docs/voed-report-2>). Met de kennis en ervaring opgedaan in dit onderzoek, werd het doel geformuleerd om een slim netwerk van schoon vervoer voor lokaal geproduceerd voedsel te realiseren in Amsterdam.

Voedsellogica is interessant voor lokale producenten, horeca ondernemers, cateraars, voedselverwerkers, winkeliers, sociaal-maatschappelijke organisaties en instellingen die deel uit willen maken van een slim netwerk van schone bevoorrading in de stad.

De voordelen op een rijtje

Voedsellogica:

- _Voorziet u snel, schoon en efficiënt van gezond en vers voedsel.
- _Biedt u de mogelijkheid uw activiteiten op unieke wijze onder de aandacht te brengen door middel van advertenties en promotie.
- _Gaat voedselverspilling tegen door overschotten mee te nemen en te laten verwerken door cateraars of aan te bieden aan voedselbanken.
- _Legt verbindingen en creëert hiermee een duurzaam netwerk van lokale producenten, ondernemers, gemeenschappen en consumenten.



Voor meer informatie kunt u contact opnemen met:

peggy@citiesthemagazine.com

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FOODLOGICA

FRANCESCA MIAZZO

JESSICA SPADACINI

FOODLOGICA IS A LOGISTICAL SERVICE DESIGNED
TO CLEAN THE LAST MILE OF AMSTERDAM'S
LOCAL FOOD SYSTEM USING E-TRIKES.









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**NO EMISSIONS.
NO CONGESTION.
NO POLLUTION.**

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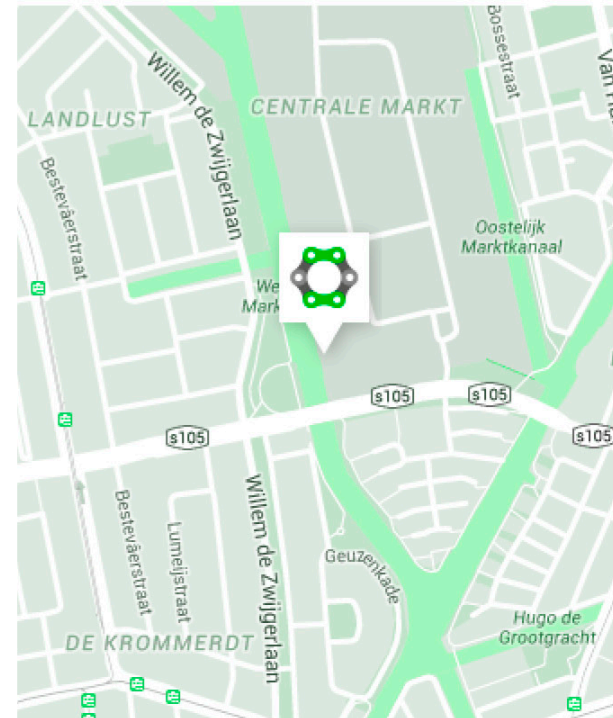
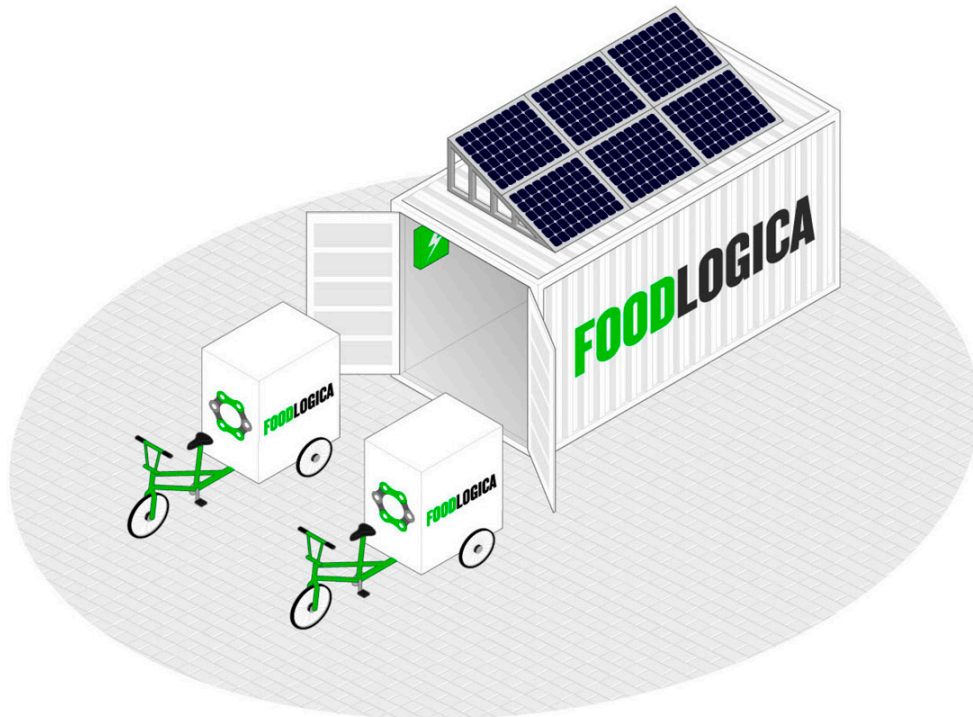
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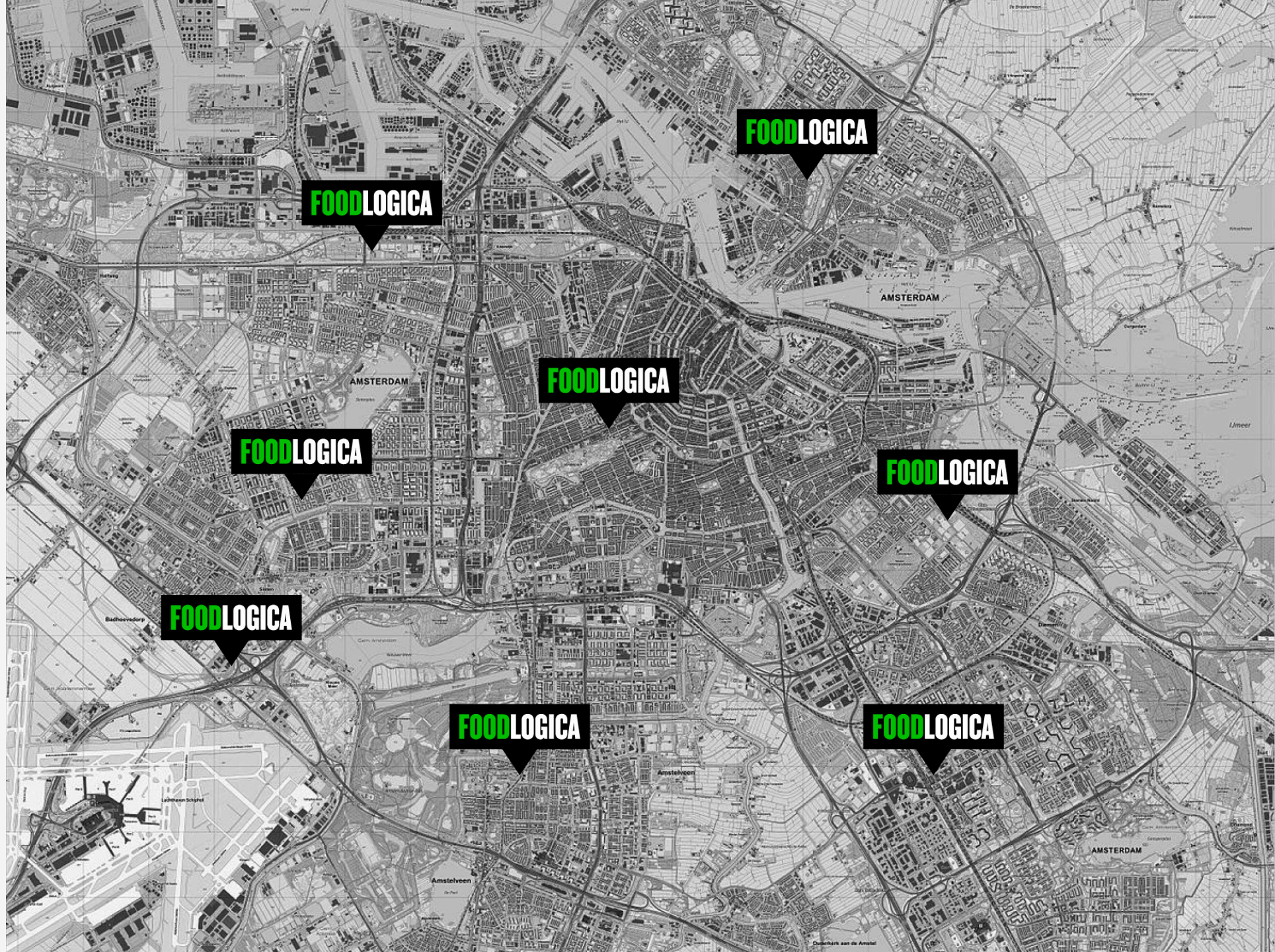
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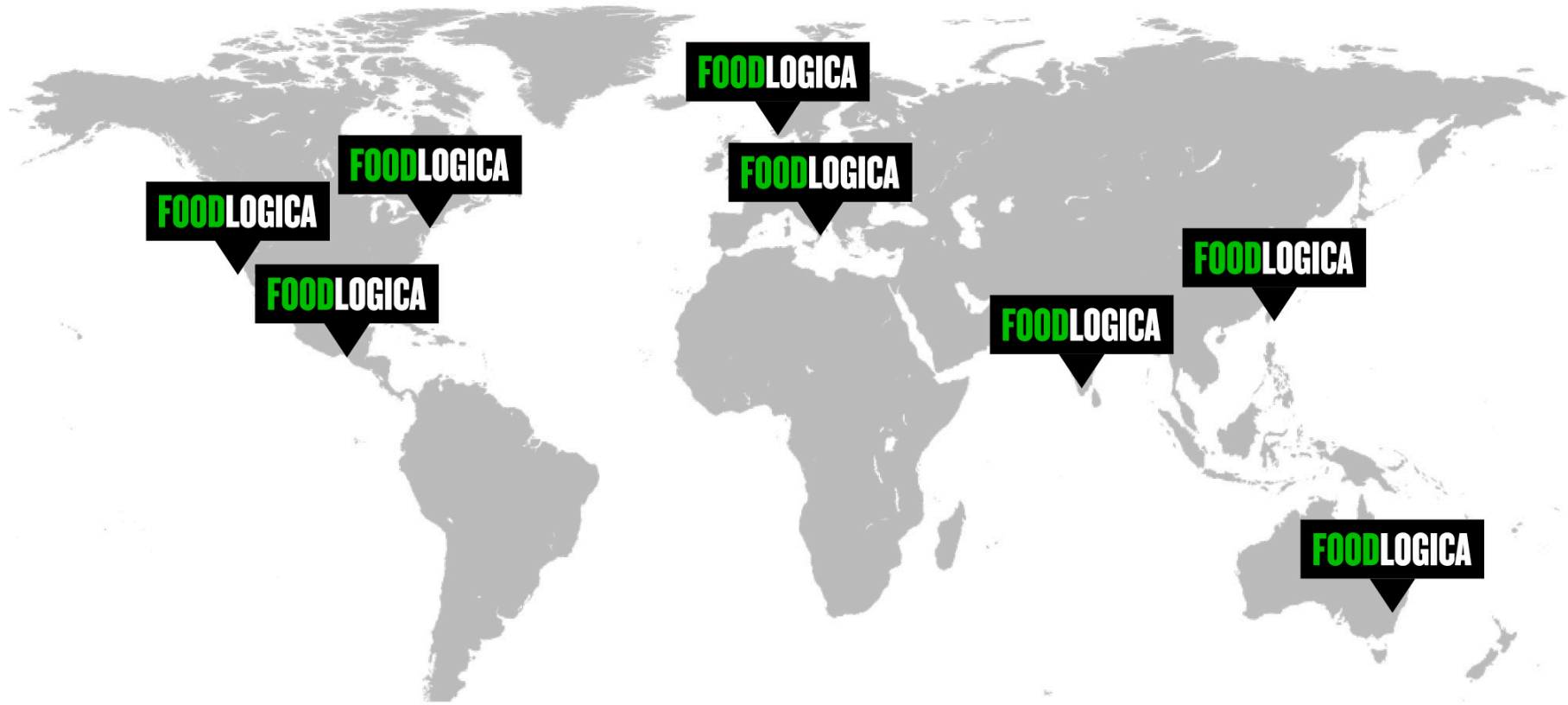
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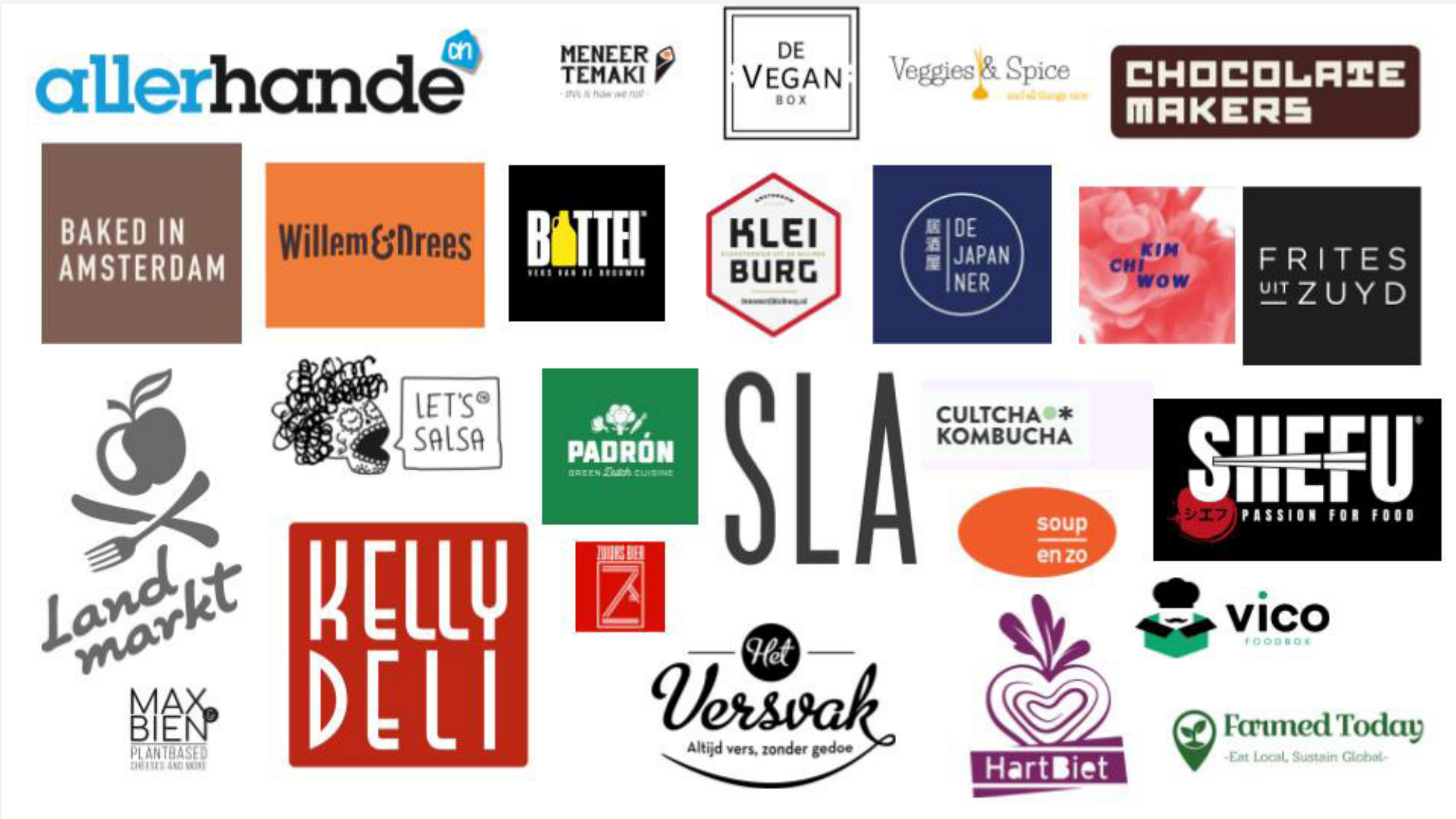
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**STRESS-FREE, ZERO-EMISSION, REFRIGERATED
LAST-MILE SOLUTIONS FOR EXCEPTIONAL FOOD COMPANIES**

SINCE 2014 **FOODLOGICA** HAS BEEN SUPPORTING MORE THAN 100 FOOD BRANDS



OUR **LOGISTIC MODEL** FOCUSES ON REDUCING DELIVERY TIME BY PLACING STRATEGIC HUBS AT THE EDGE OF THE CITY; FROM WHERE SMALLER VEHICLES CAN **REACH OUR DESTINATIONS FASTER**



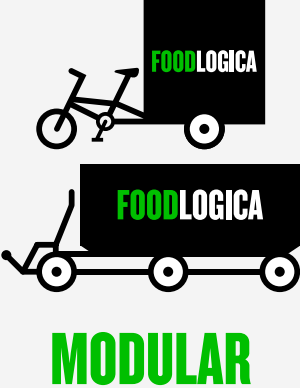
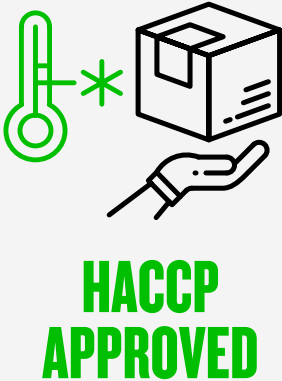
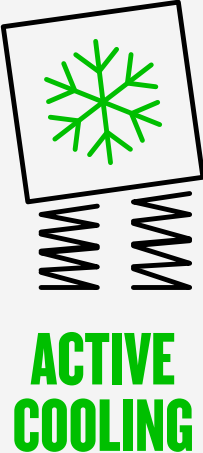
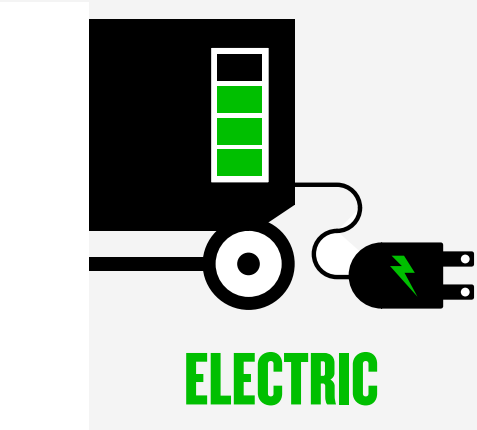
BIG VOLUMES



**LAST
MILE**

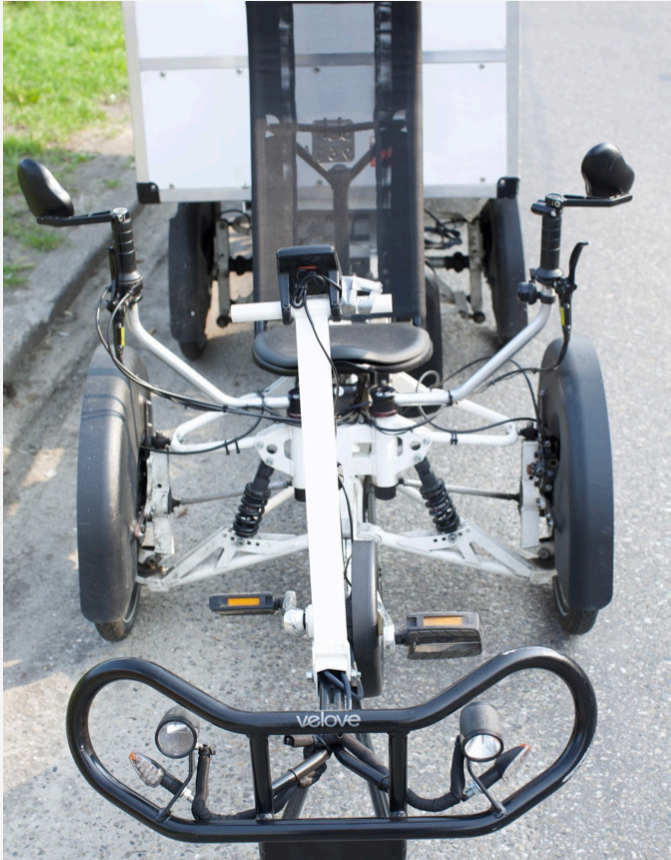
OUR VEHICLES

A mixed fleet of electric, refrigerated vehicles suitable for any environment



**OUR
VEHICLES**





**OUR
VEHICLES**

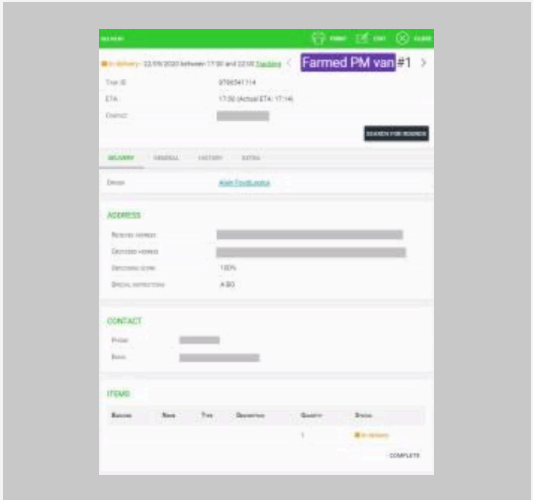
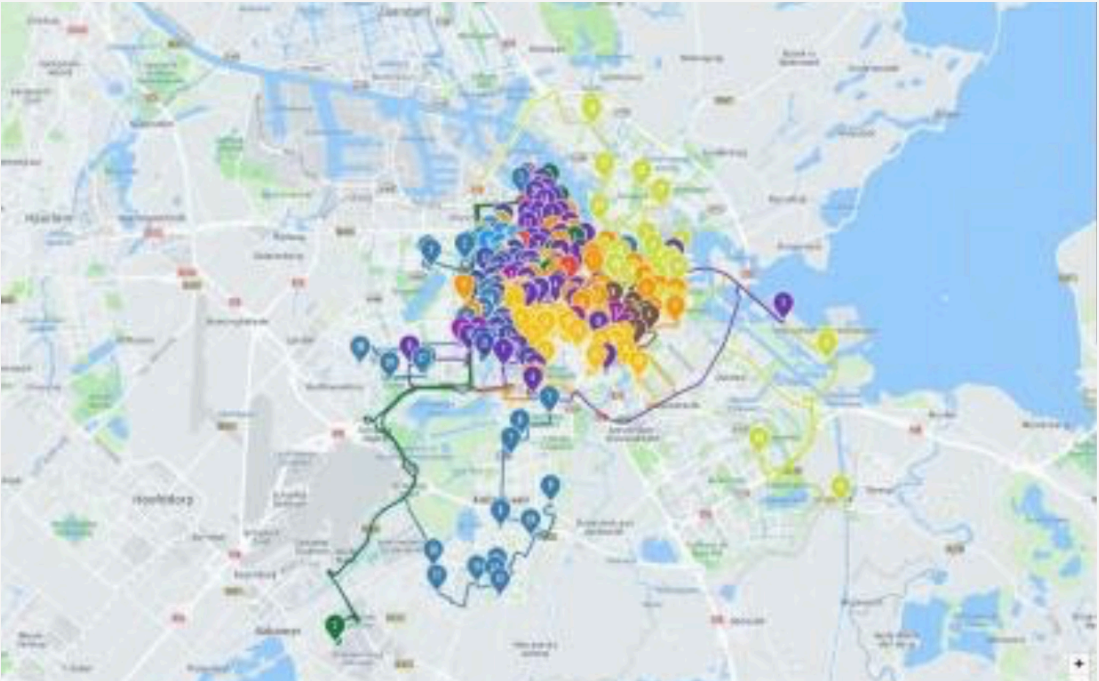


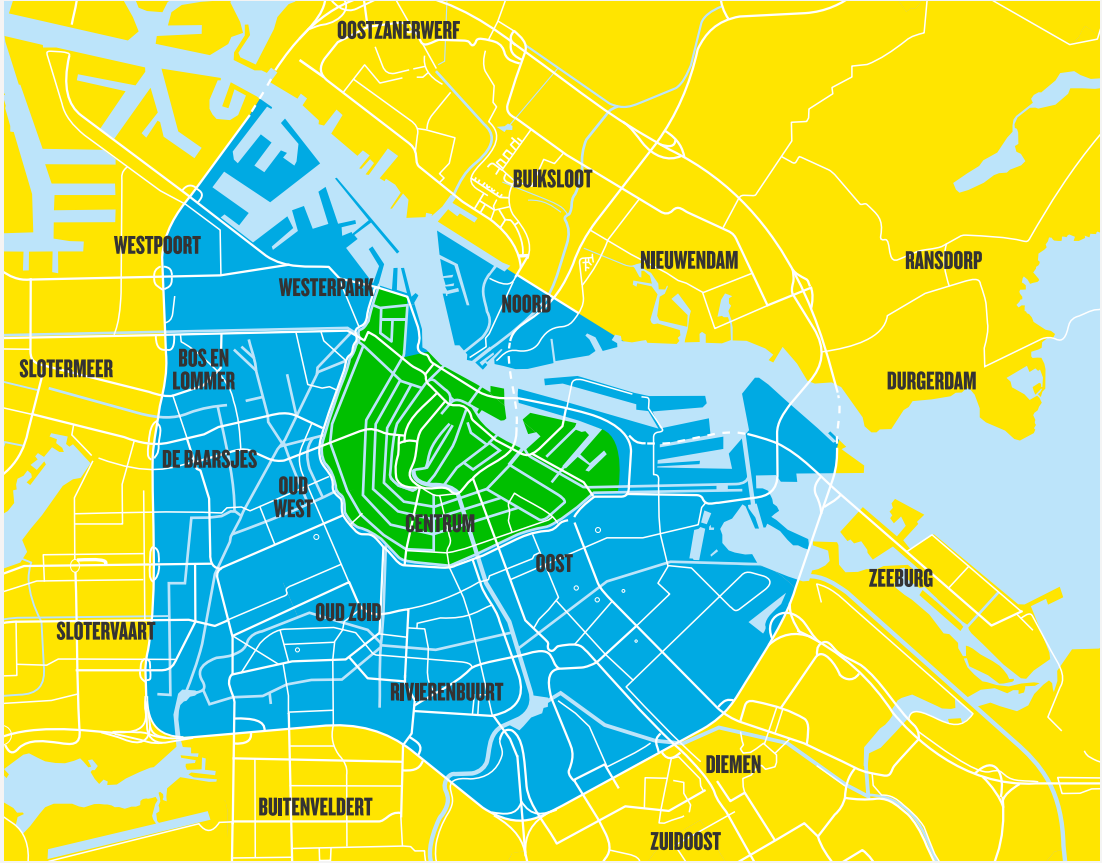
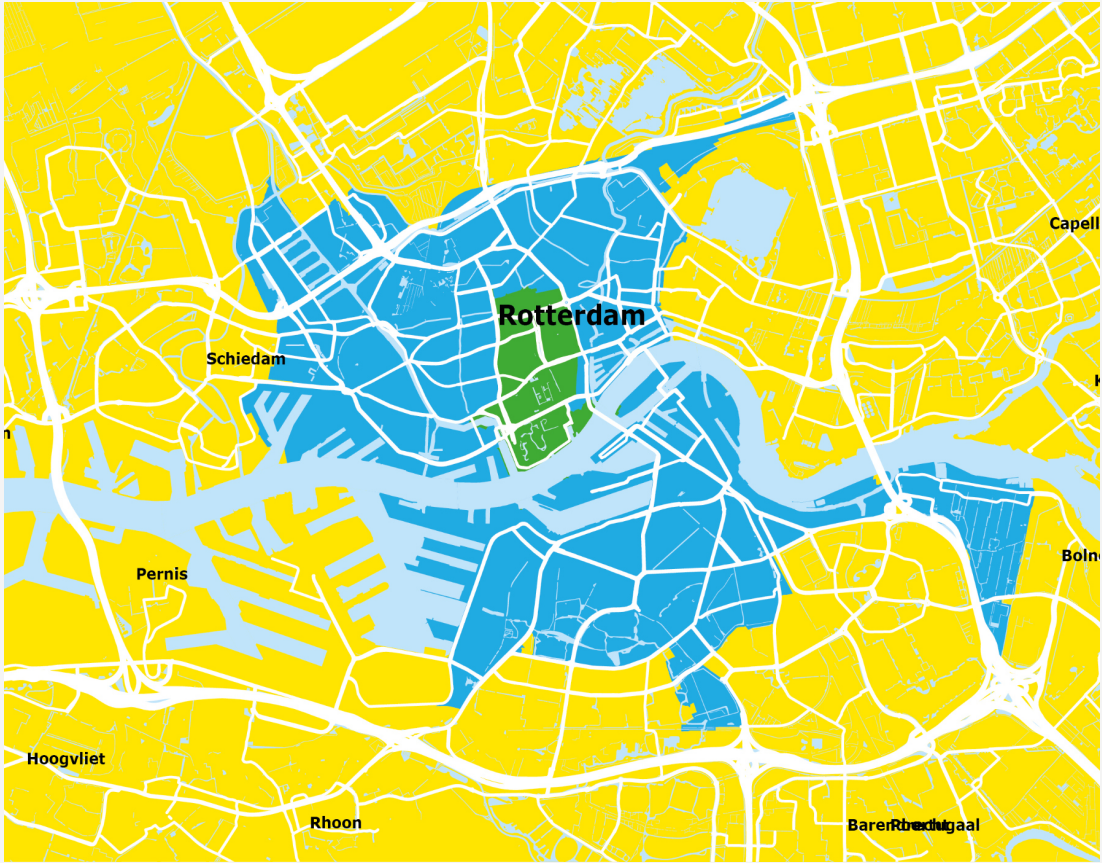
**OUR
VEHICLES**

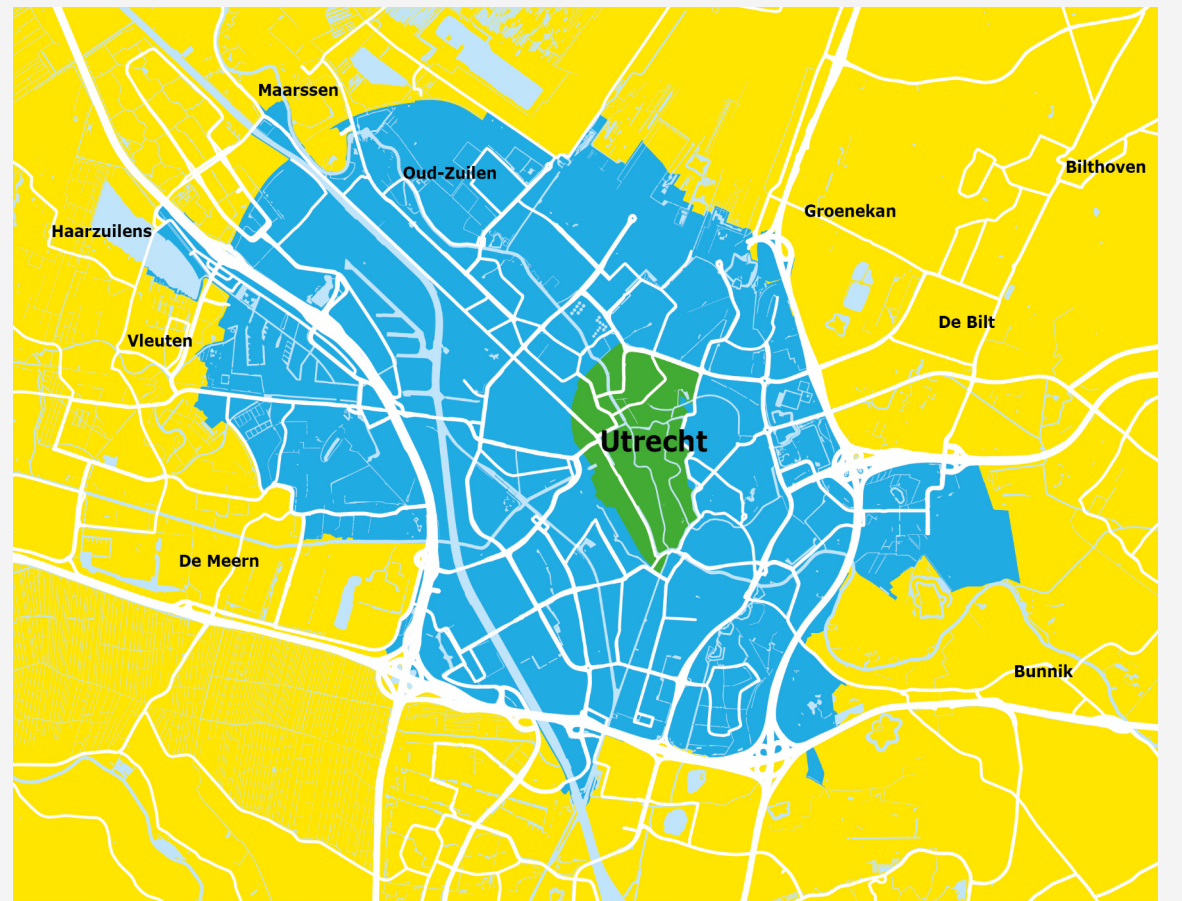
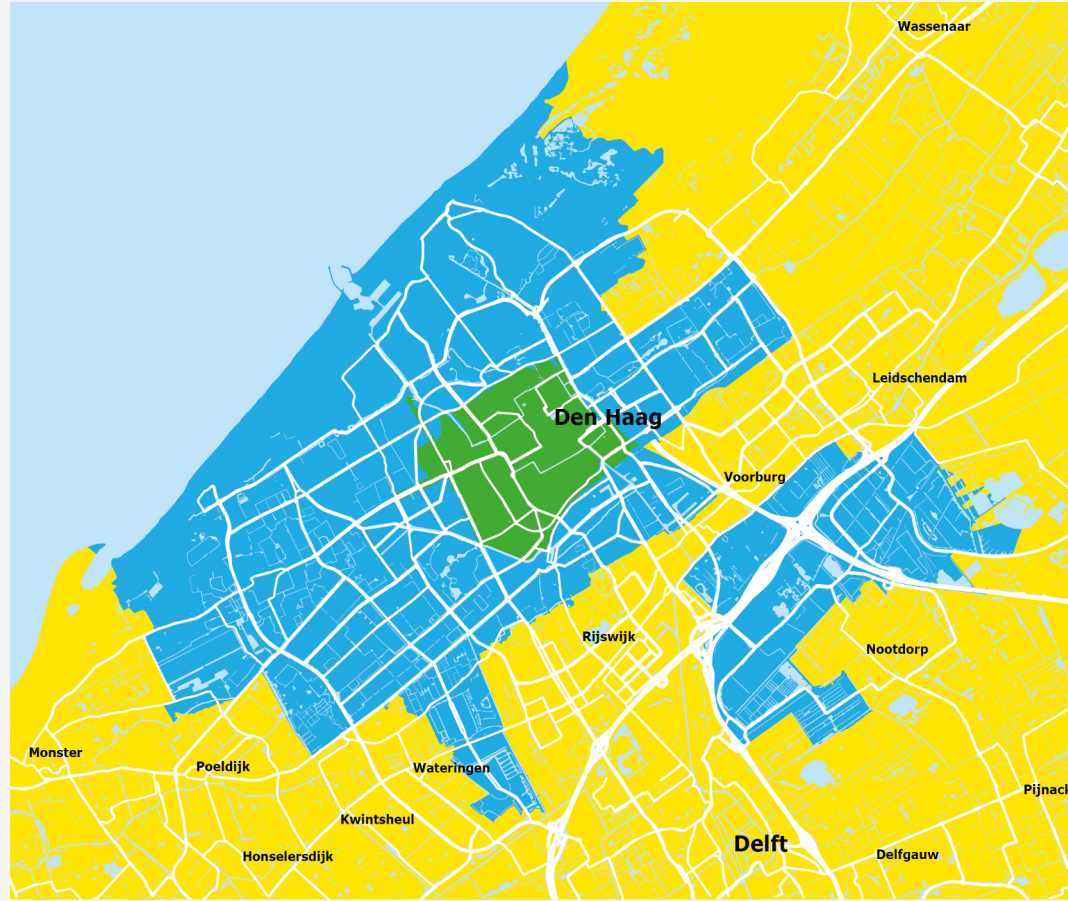


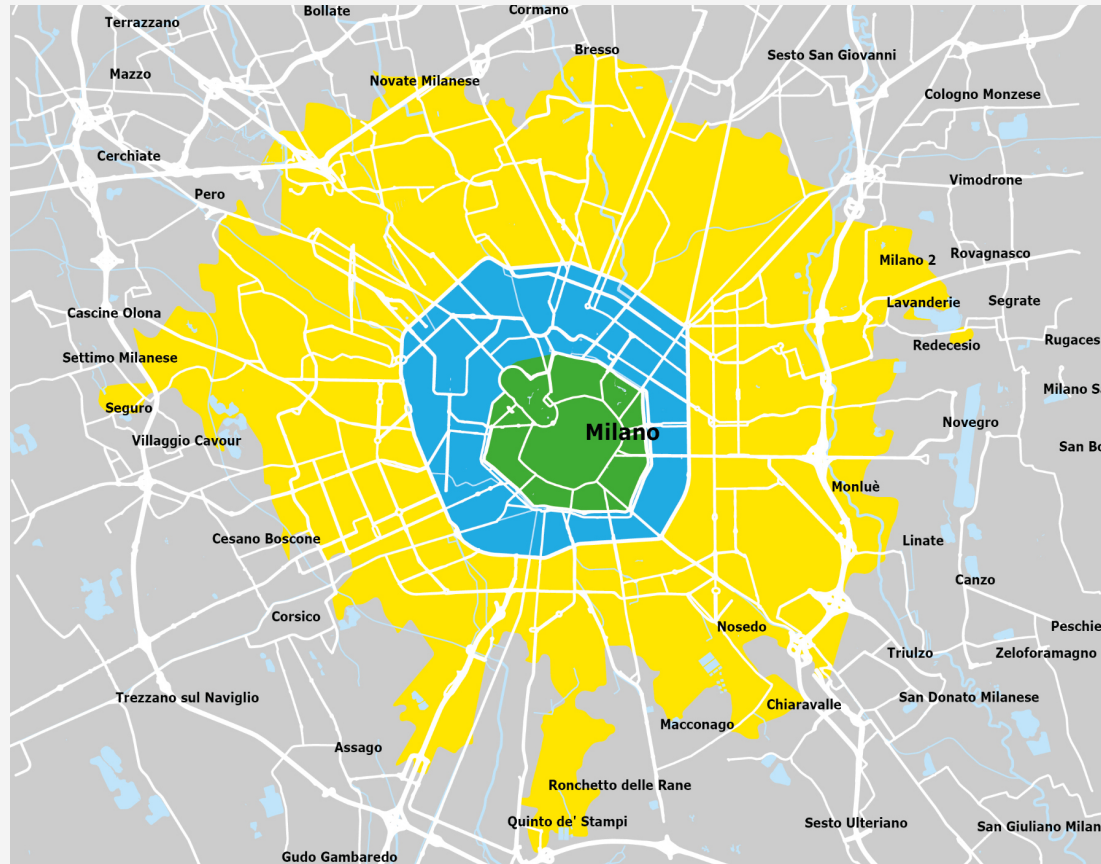
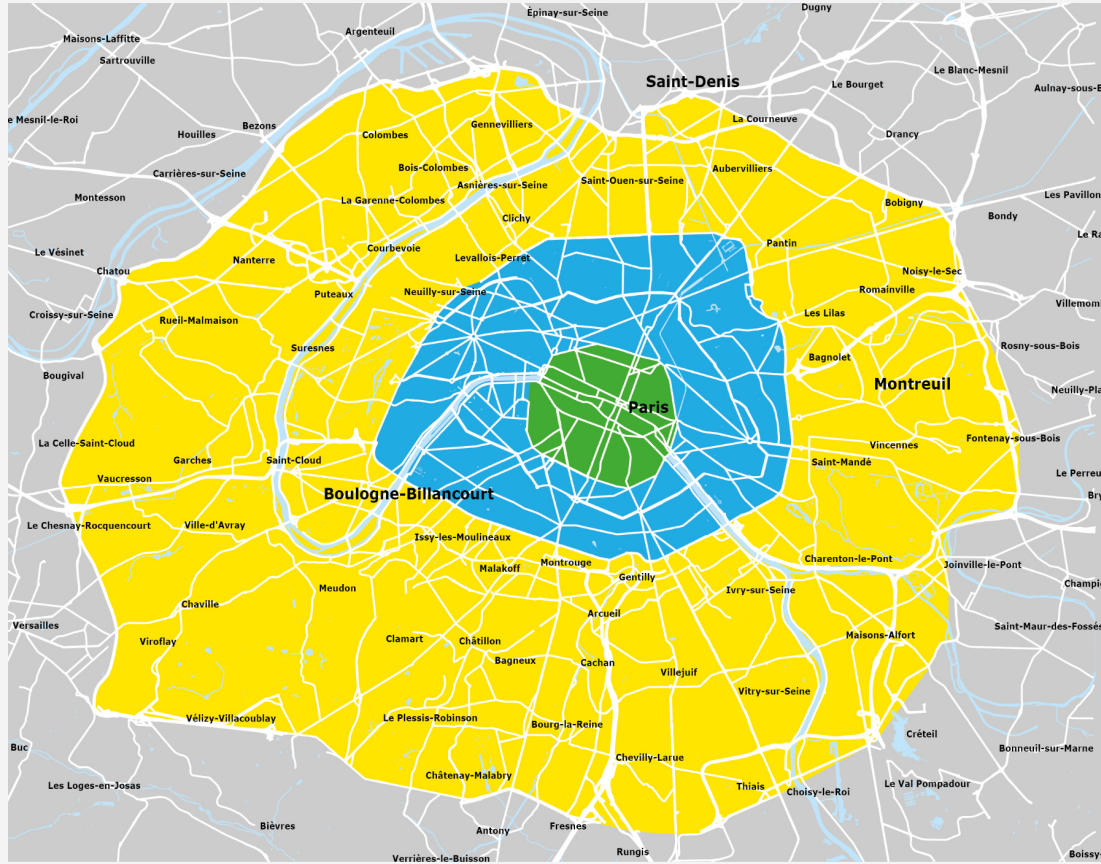
ORDER PICKING

ORDER TRACKING











THANK YOU



francesca@foodlogica.com

PANEL DISCUSSION

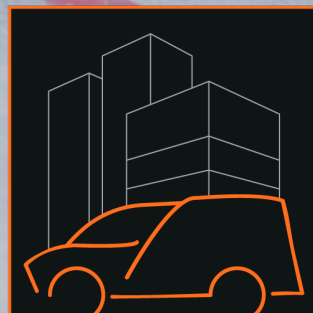




Questions from the audience



How much **consolidation** between urban logistic operators do you expect to see in the coming years?

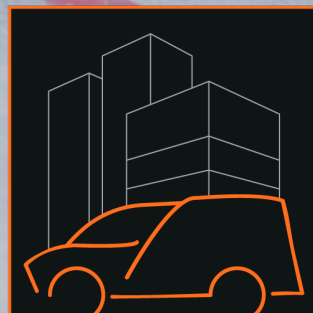




What do logistics operators currently need from **public authorities** in a changing urban environment?



What
**technological
advances** do you
foresee in last-
mile delivery
beside compact
e-LCVs?





Questions from the audience





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MODULAR AND FLEXIBLE SOLUTIONS FOR URBAN-SIZED
ZERO-EMISSIONS LAST-MILE DELIVERY & SERVICES VEHICLES

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*This project has received funding from the European Union's Horizon 2020
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**Thank you and let's
keep in touch!**



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URBANIZED

MODULAR AND FLEXIBLE SOLUTIONS FOR URBAN-SIZED
ZERO-EMISSIONS LAST-MILE DELIVERY & SERVICES VEHICLES

Urban logistics academy: Evolution of delivery fleets in changing urban environments

Hosted by Lukas Marthaler and Rosa van Gestel (Bax & Company)



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