



LOGISTICS & E-COMMERCE

URBANISM NEXT EUROPE  
**2021**

# The urgency to integrate city logistics in urban planning for livable cities of the future

Bram Kin, Heleen Buldeo Rai, Jos Streng, Nina van den Berg

**PARALLEL SESSION 2.E.**

10 June, 2021 | 9.30-11.00 CEST | **#UNextEU**

# Welcome



*How do we optimize the spatial impact of freight- and service related movements by integrating logistics in urban space and planning?*

- Introduction
- *The reintegration of logistics in cities*  
Heleen Buldeo Rai, City Logistics Chair – Université Gustave Eiffel
- *Efficient use of space – What's in the city's sphere of influence*  
Jos Streng, Municipality of Rotterdam
- *We want it all, we want it now – Logistics on the (spatial) agenda in the Zuidas*  
Nina van den Berg, Green Business Club Zuidas
- Questions and conclusions

# Decarbonizing urban freight....

## Dutch municipalities to set-up zero-emission zones by 2025 - electrive.com

Author: Nora Manthey

4-5 minuten

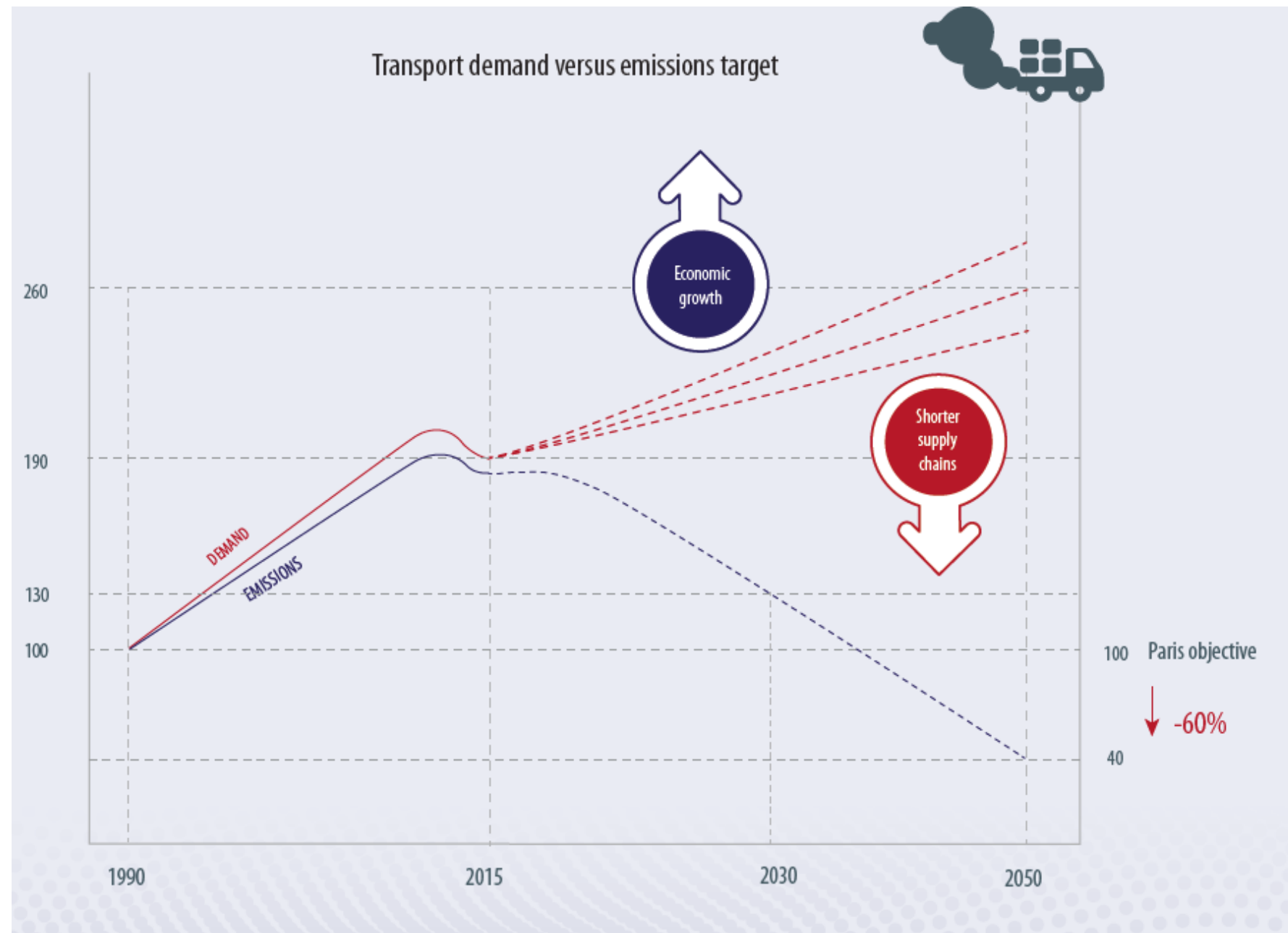
Feb 15, 2021 - 02:02 pm

The Netherlands want to be the first country to enable cities to ban ICE entirely.



In the Netherlands, zero-emission zones for delivery traffic are coming in at least 14 Dutch municipalities. They will only let purely electric delivery vans and trucks drive through from 2025.

Municipalities, transport companies and Dutch Environment Minister Stientje Van Veldhoven have already signed a corresponding agenda called the 'urban logistics implementation agenda'. One of the fourteen cities that has decided to implement a zero-emission zone in 2025 is Tilburg, and there is, of course, Amsterdam. The concept of "milieuzones" has some prominence in other provinces too although seldom went as far as being electric-only.

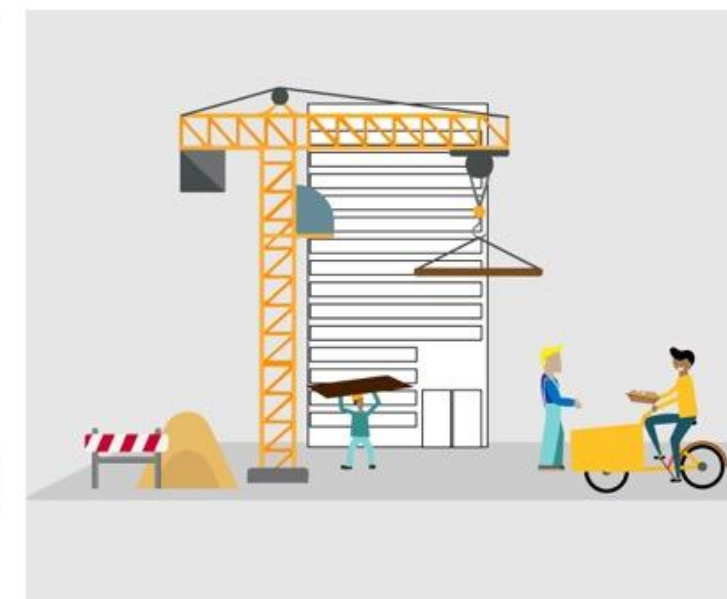
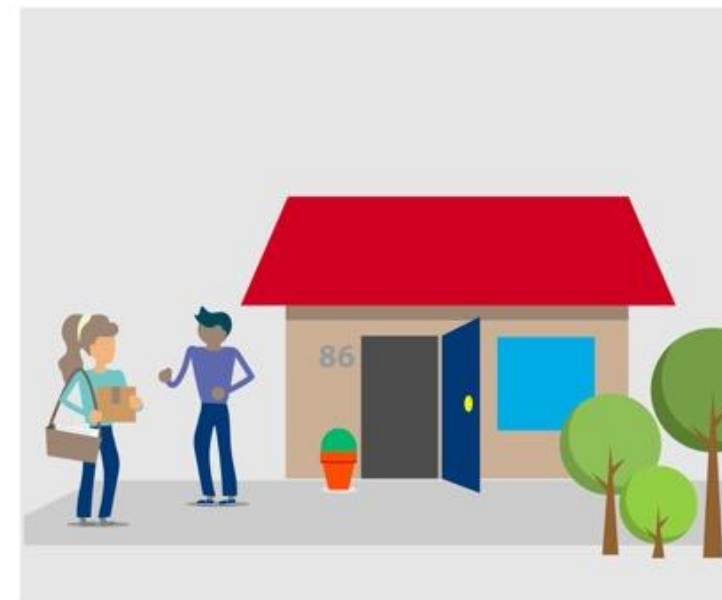
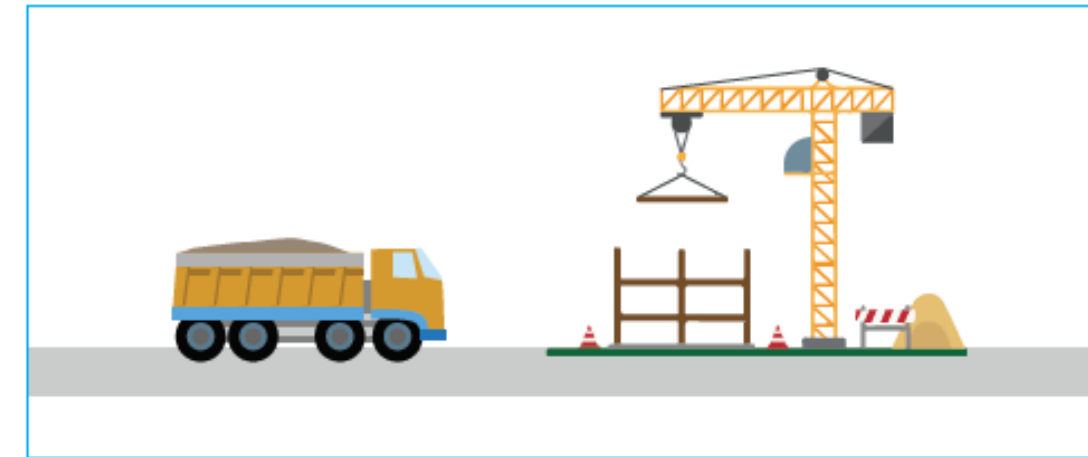
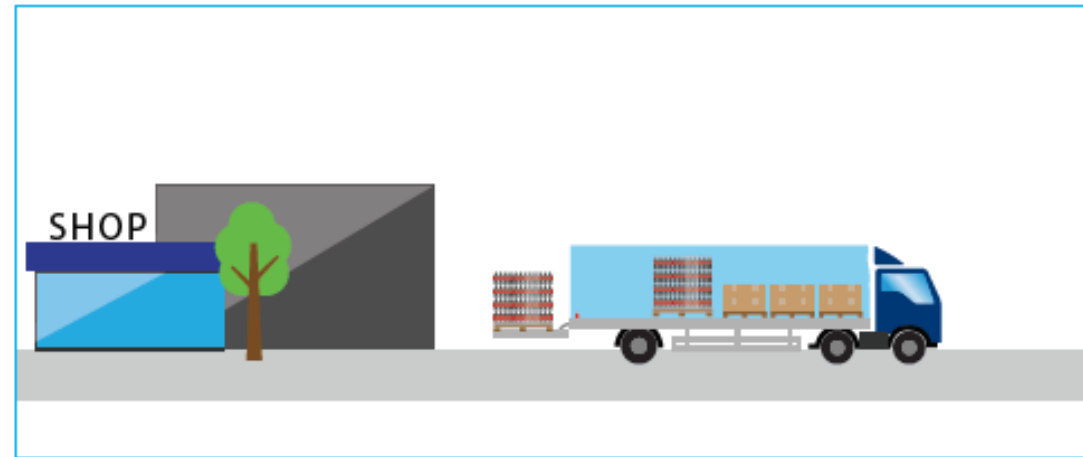




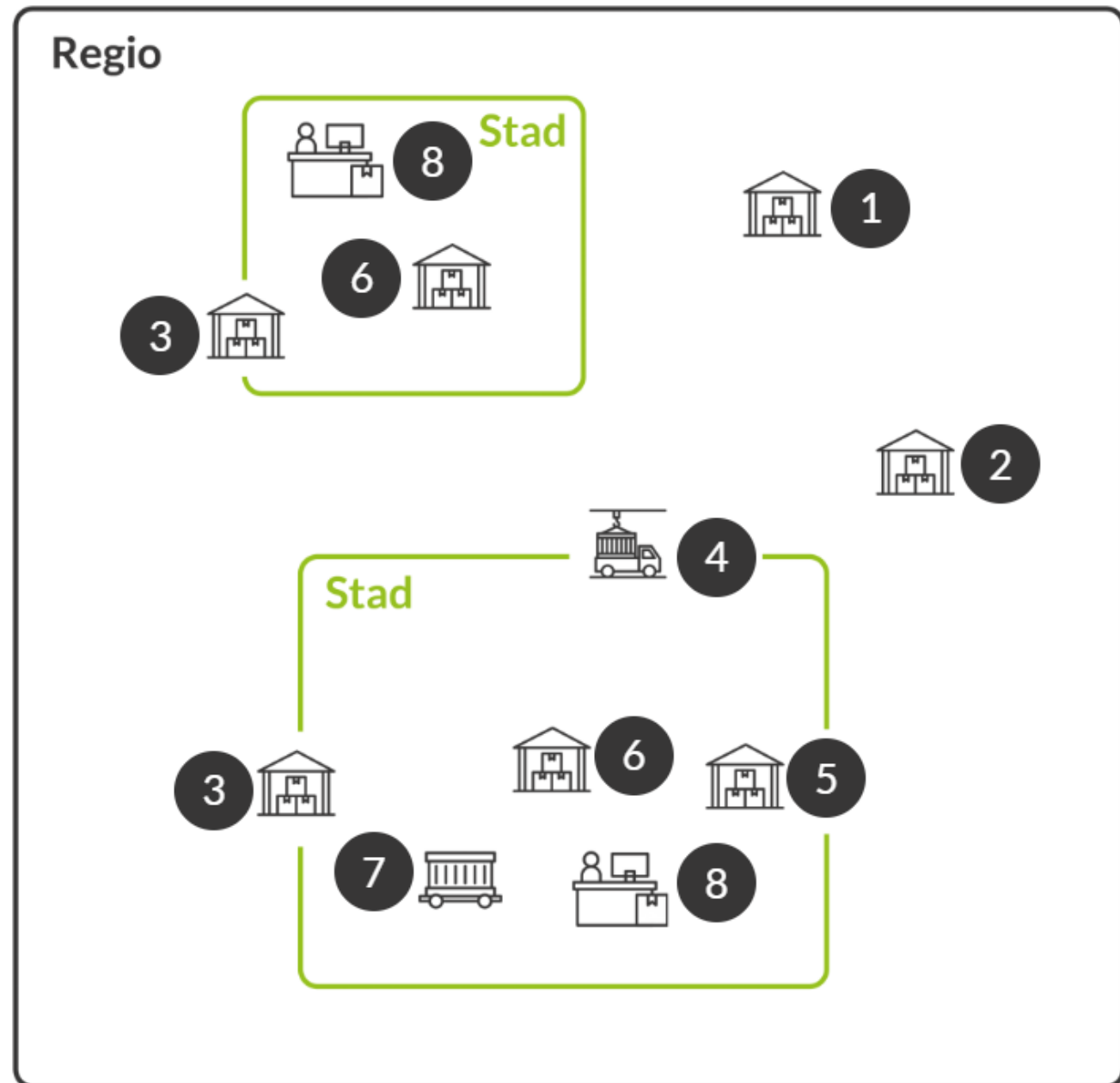
# Overlooks another challenge







# Optimizing the spatial impact by integrating it in space



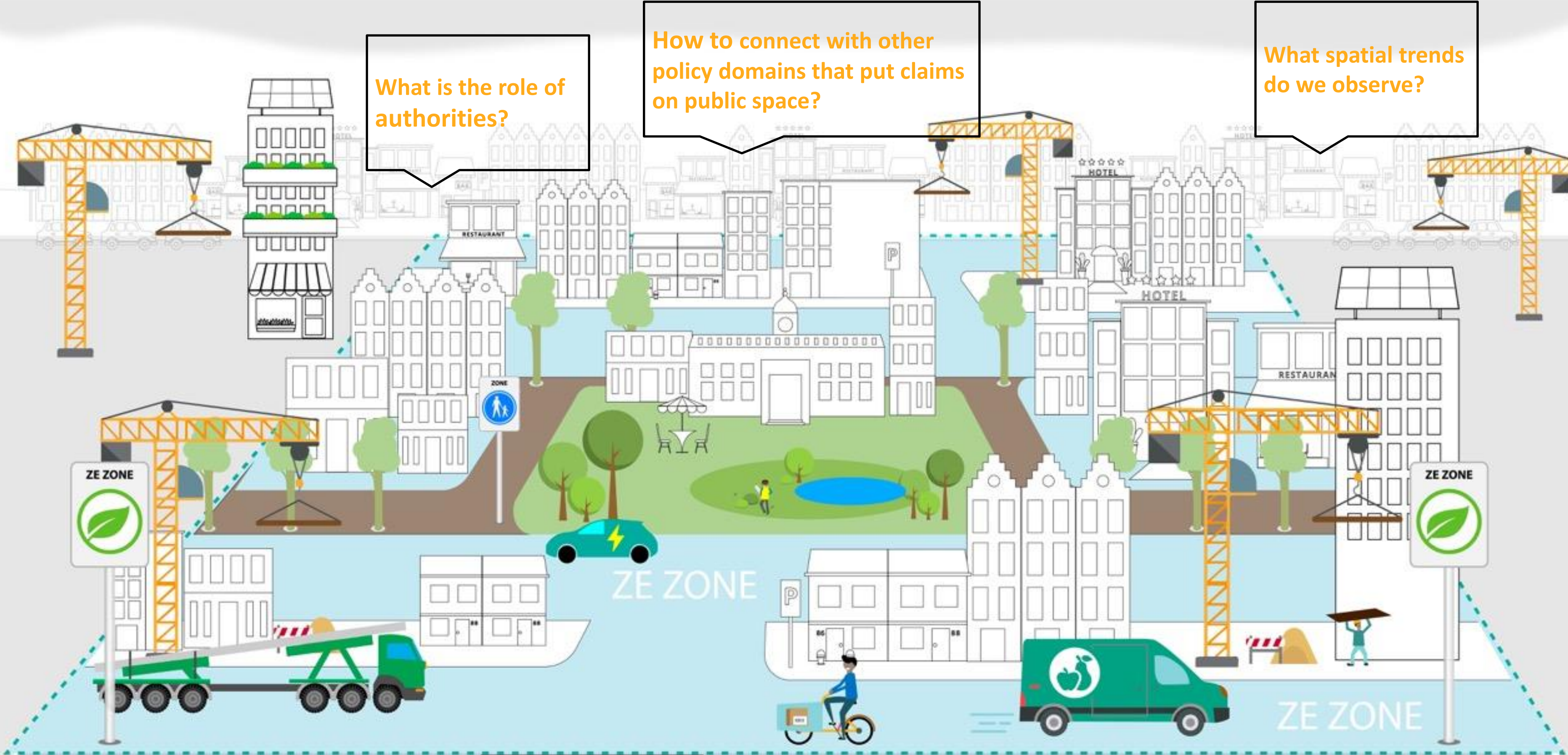
- Microhubs
- Construction hubs
- Parcel lockers
- Multi-functional use of buildings
- Connection with passenger nodes
- Charging infrastructure
- Growth of cargobikes
- ....



What is the role of authorities?

How to connect with other policy domains that put claims on public space?

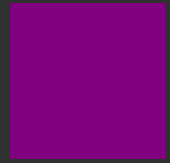
What spatial trends do we observe?



Which stakeholders should be involved?

How to get logistics on the planning agenda?

How to make sure that logistics is considered in area development?



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# The reintegration of logistics in cities: Developing a proximity logistics

Heleen Buldeo Rai – Postdoctoral researcher University Gustave Eiffel, City Logistics Chair

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**LOGISTICS  
CITY**

# The urgency to integrate city logistics in urban planning for livable cities of the future

Urbanism Next Europe

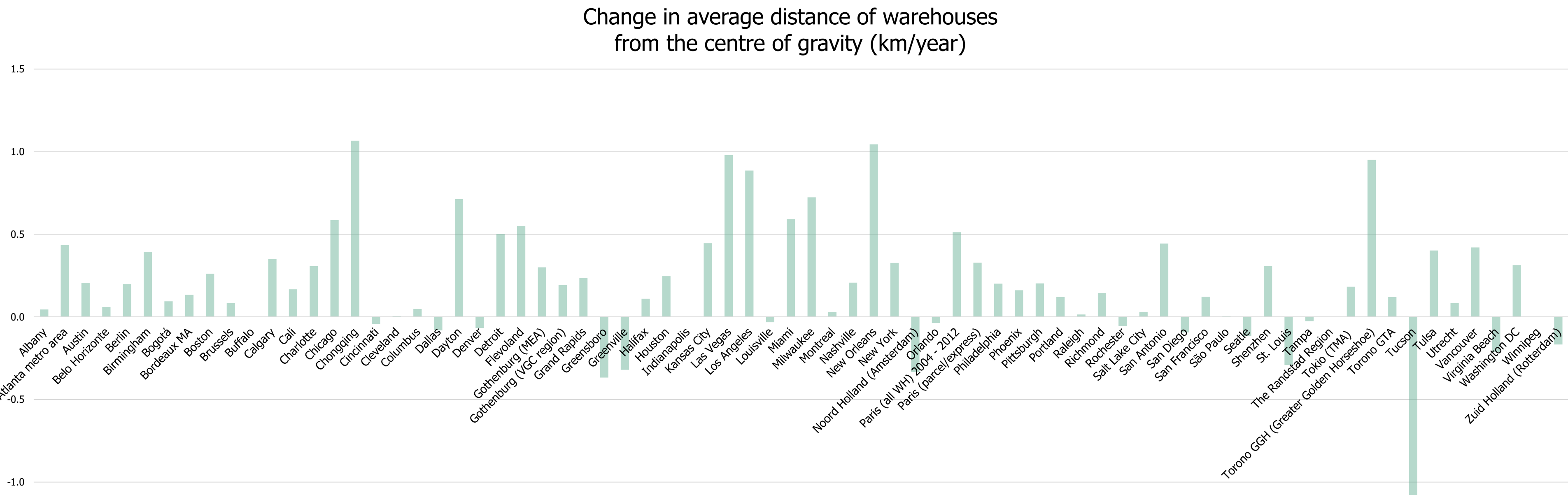
Heleen Buldeo Rai

Univ Gustave Eiffel  
Chair Logistics City

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# Historical outward migration of logistics facilities





# Recent countermovement back to cities



Increasing urban  
vehicle access limitations

Accelerating e-commerce  
service requirements

**Faster than you**

**Groceries  
delivered in  
10 minutes**

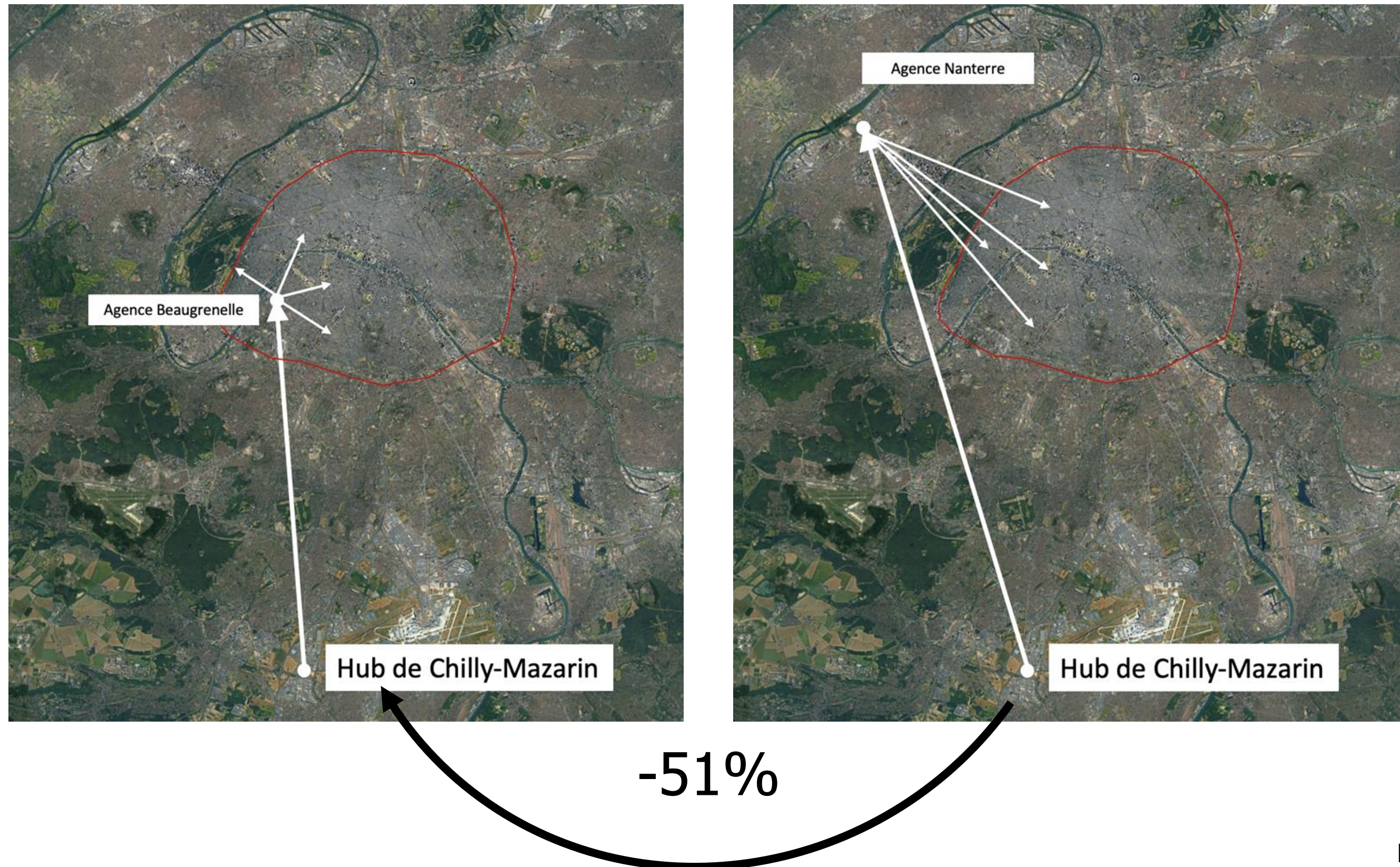


# From XXL to S and XS logistics facilities





# A system with environmental advantages





# Proximity logistics comes in all shapes and sizes



Multi-functional



Multi-activity



Multi-level



Micro



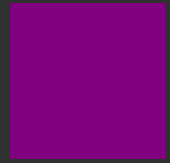
# Although challenges remain

**Economically** which business models work on the long-term without depending on public funding, venture capital, pseudo-employment?

**Architecturally** how to optimise logistics operations while blending in with local built environment aesthetics?

**Organisationally** how to optimise logistics operations while limiting local nuisances ("being a good neighbour")?

**Regulatory** how to adapt planning and building regulations to allow the integration of logistics facilities in dense and mixed-use urban areas?



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# Efficient use of urban space

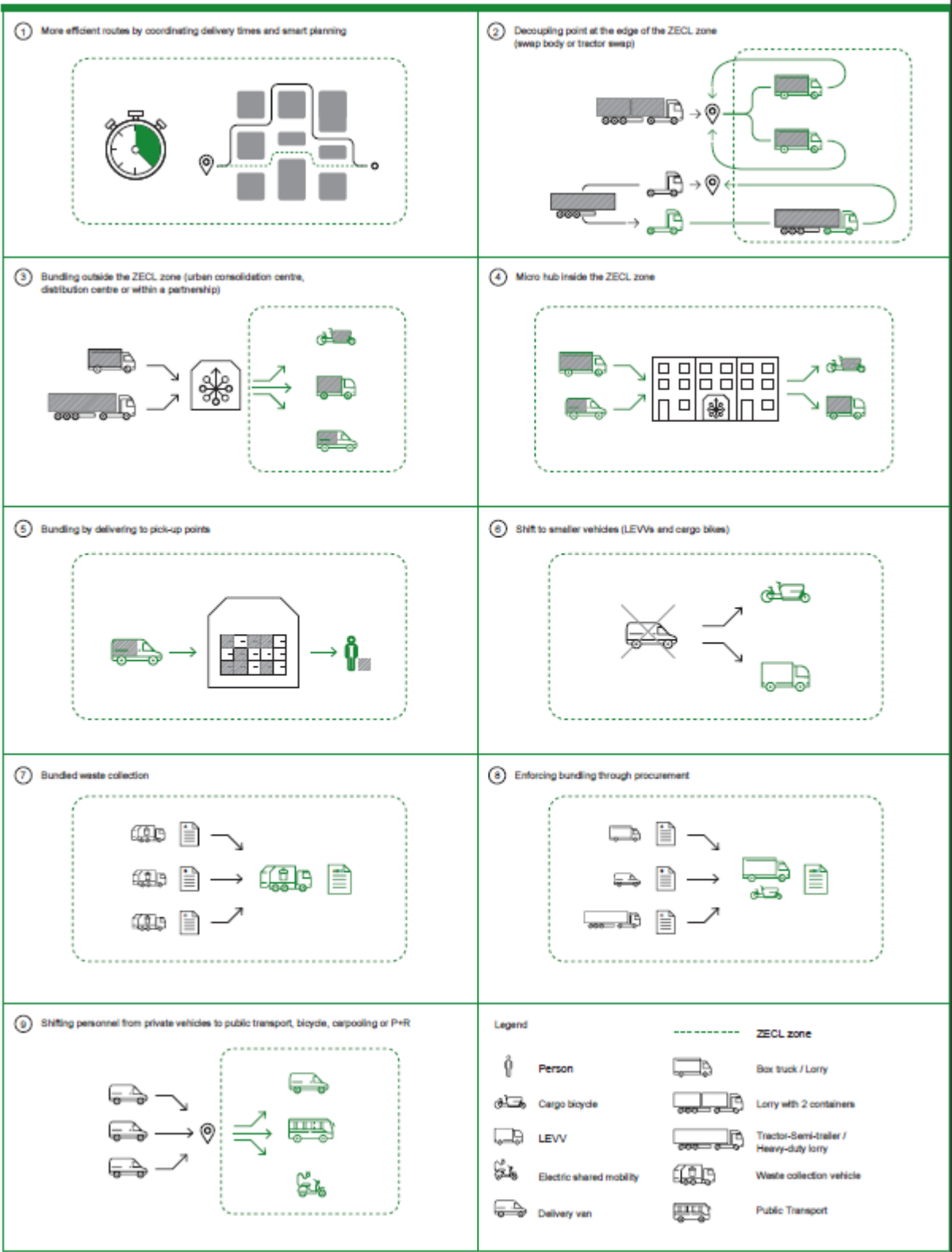
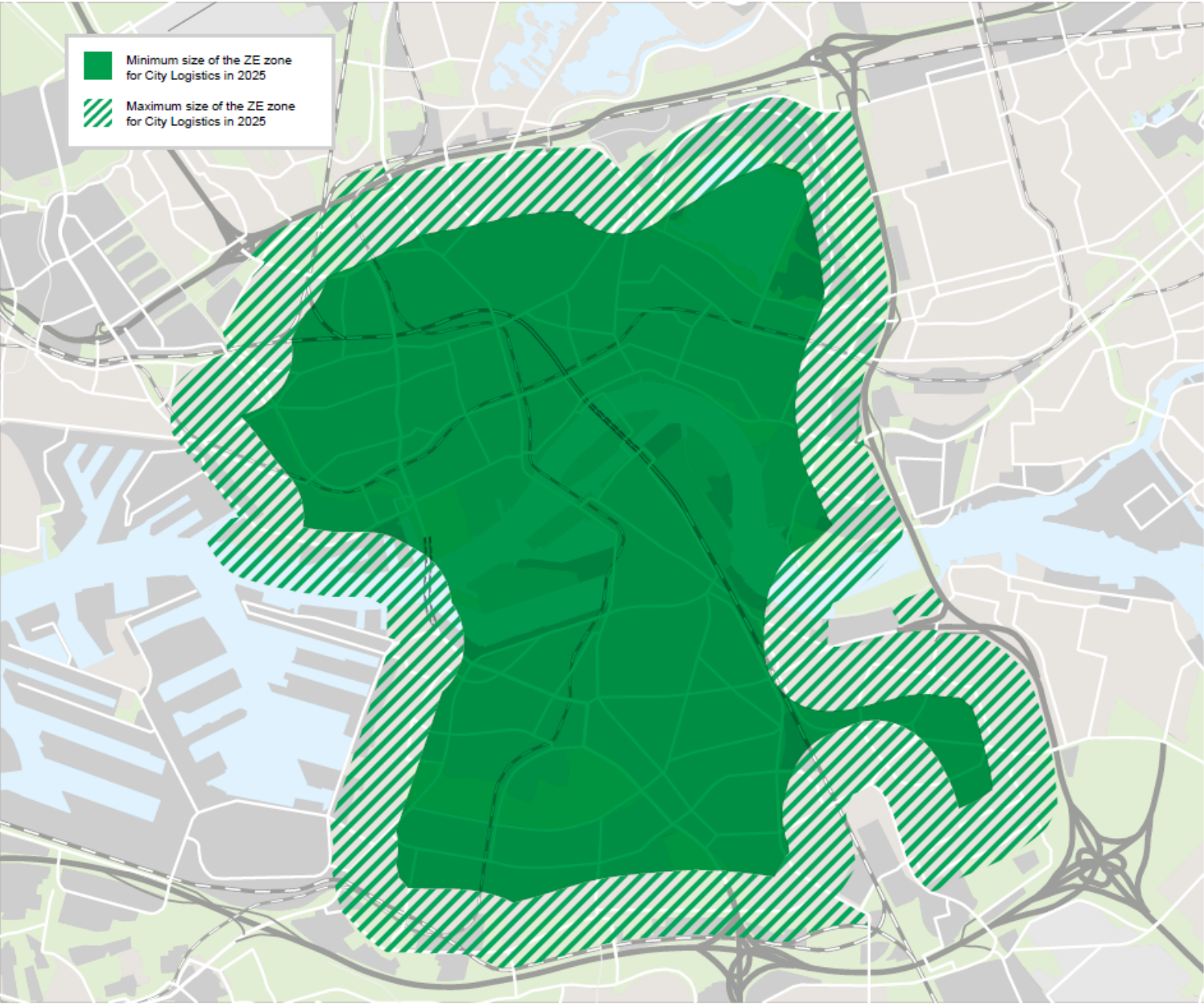
## Two examples of improvement within the city's sphere of influence

Jos Streng – Transport Planner, Municipality of Rotterdam

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# Rotterdam – Context





# Maintenance of public infrastructure



- Cities buy their own materials to maintain the network of roads and sewage system
- ZE transport of materials requires decoupling locations, for instance at the waterfront
- Challenging to develop such locations



Coolsingel.nl



# Logistic requirements in building permits



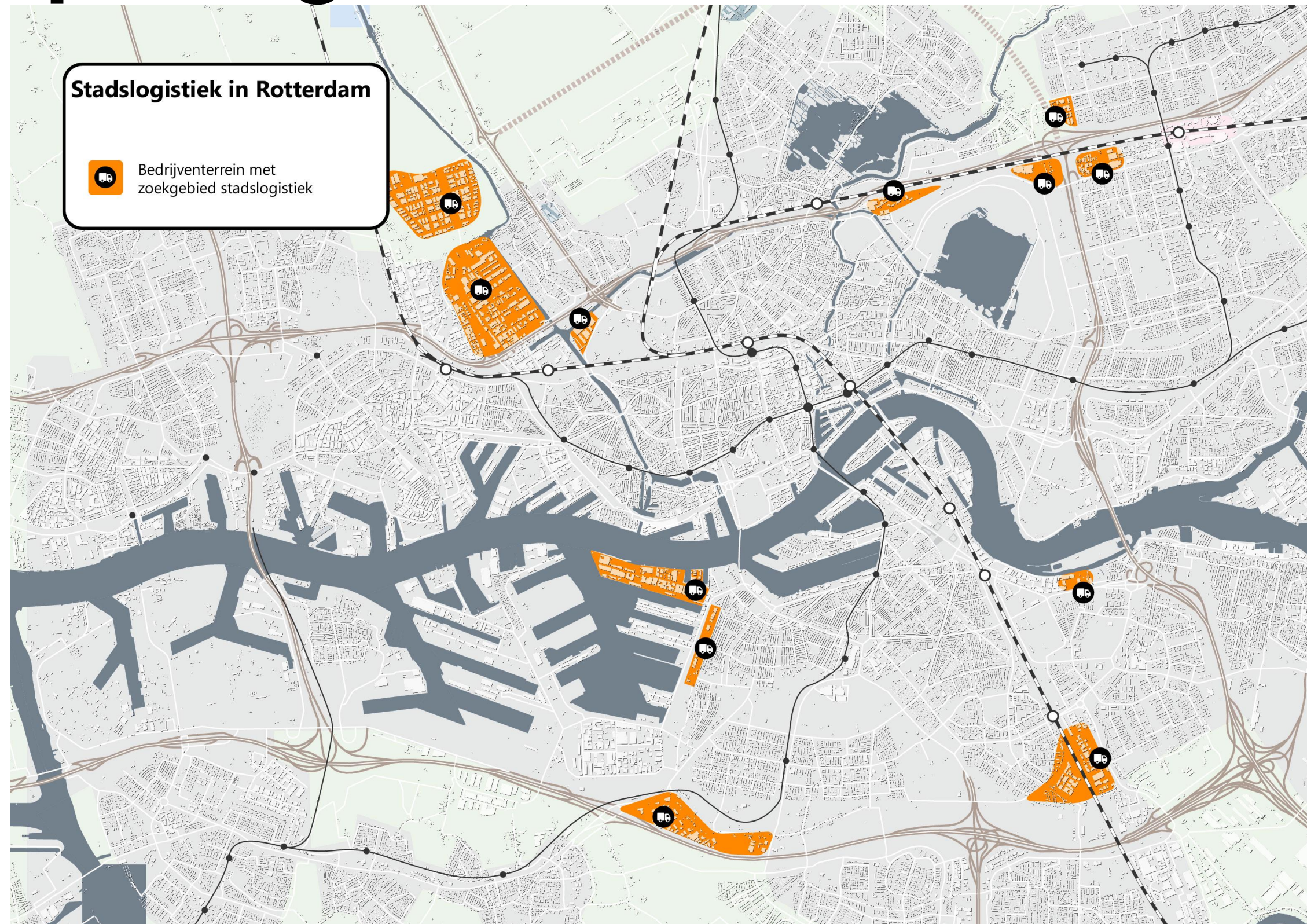
- Local authorities as issuers of building permits
- Traditionally there has been ample attention for (and regulation of) the number of parking places (per household or per fte) to be provided in a development
- How to apply the same process to logistics aspects of buildings' performance?



Parkhaven010.nl

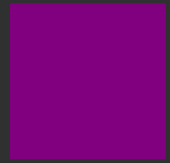


# Spatial planning



Disclaimer: these areas are part of the exploratory phase and have not been officially allocated





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# We want it all, we want it now...

Nina van den Berg – Project manager Logistics, Green Business Club the Netherlands

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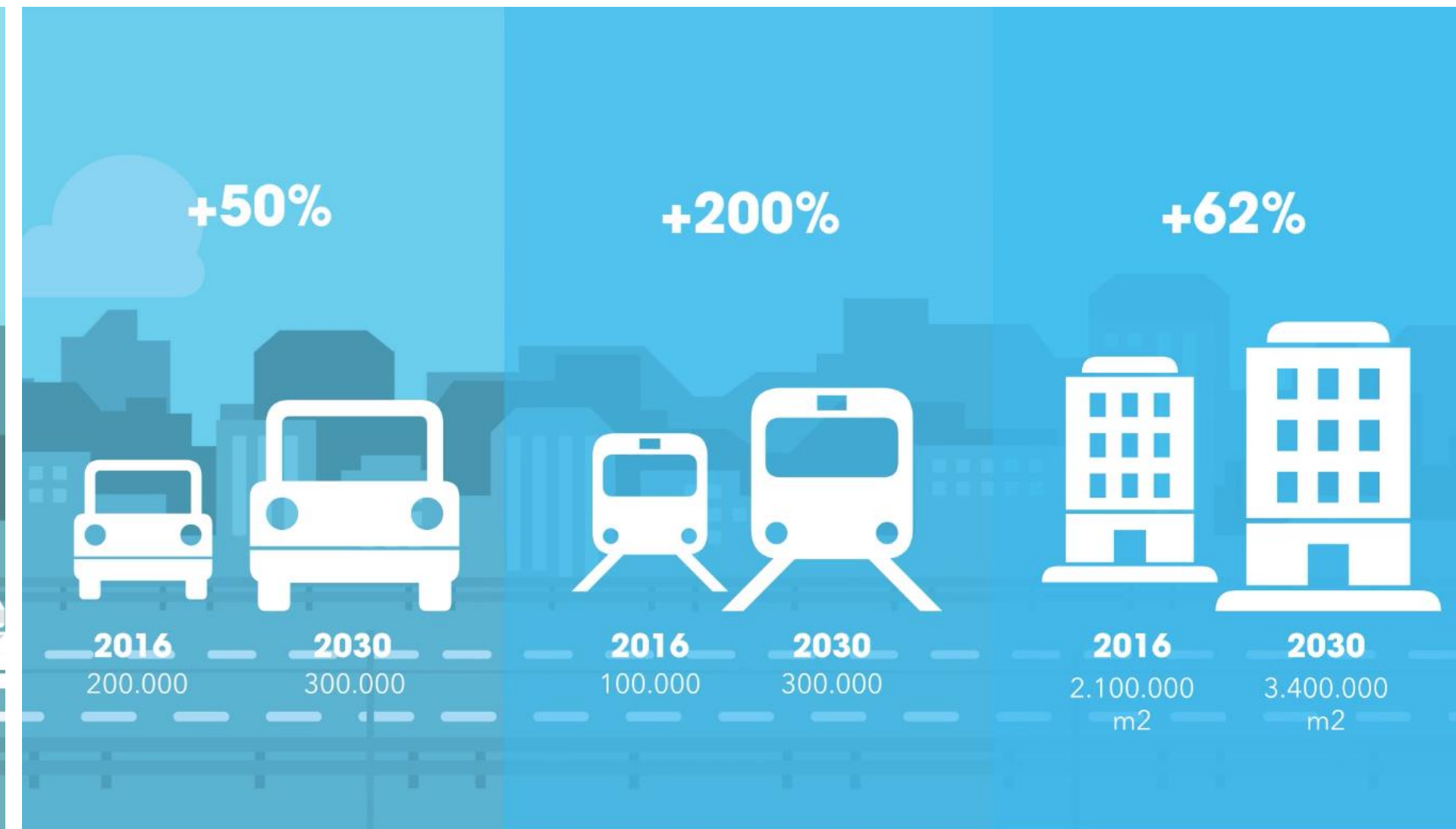
# Green Business Club Zuidas

- 10 years
- 55 participants
- sustainability
- impact
- concrete projects
- funded by corporates + (local) government
- part of network of 14 local GBC's





# How logistics came on the agenda





# Grasping logistical footprint

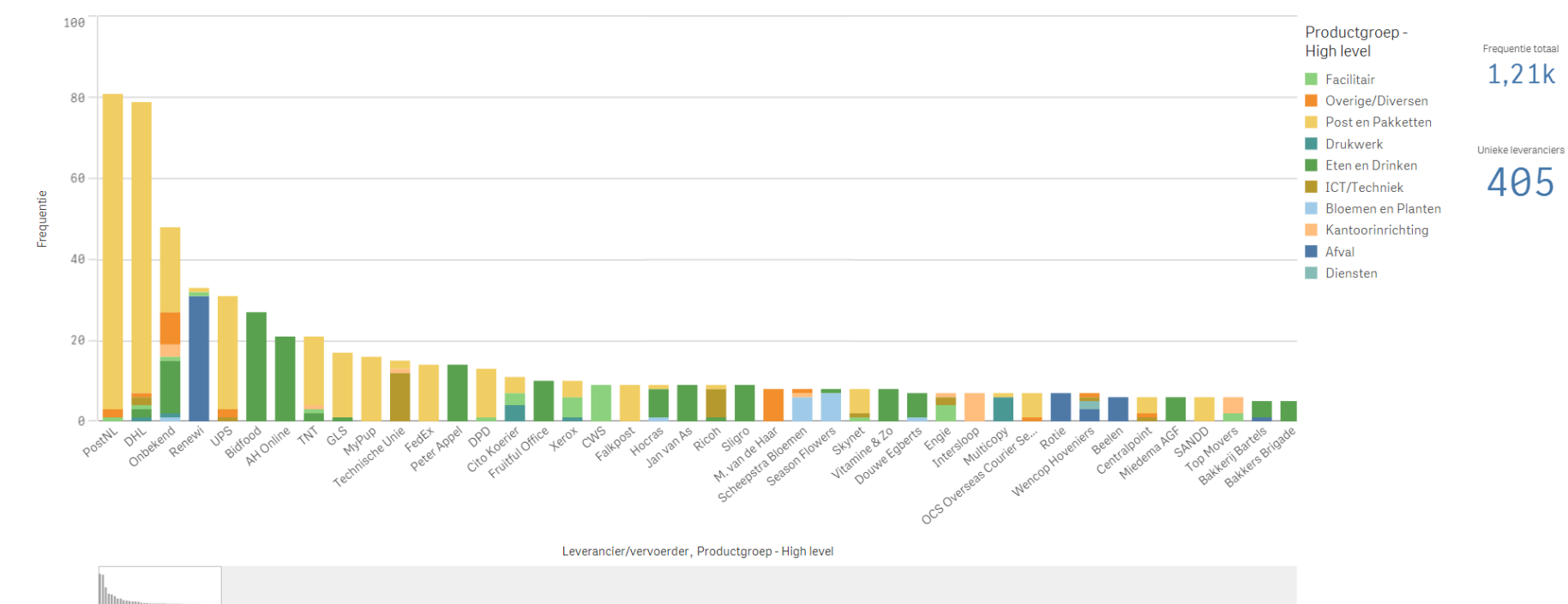
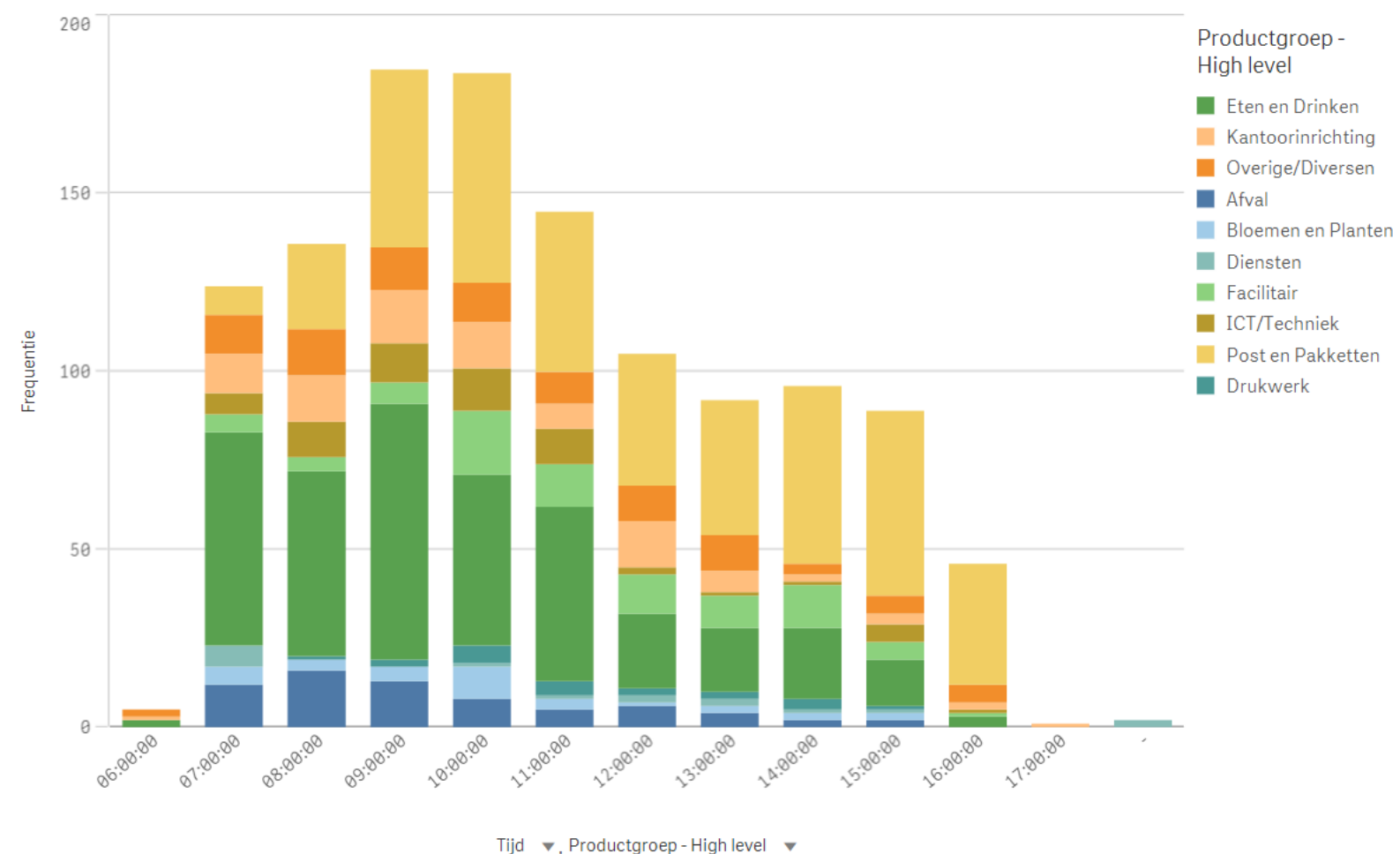
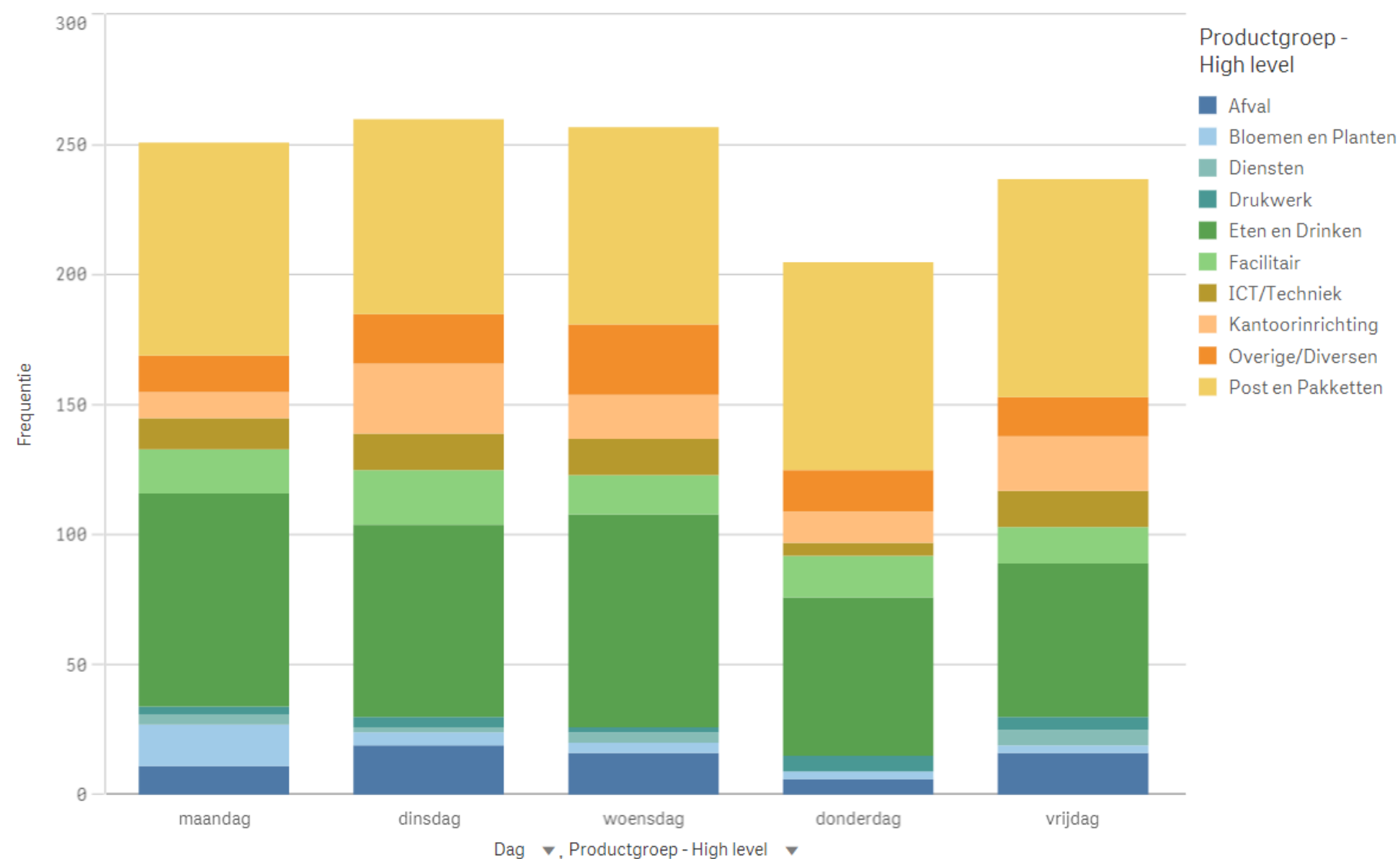


- Getting **commitment**: Green Deal Zero Emission City Logistics
- **Mismatch** between what we **hear** and what we **see**
- Creating sense of **urgency**
- Getting **insight**: introducing *'expedition research'*





# Show, don't tell



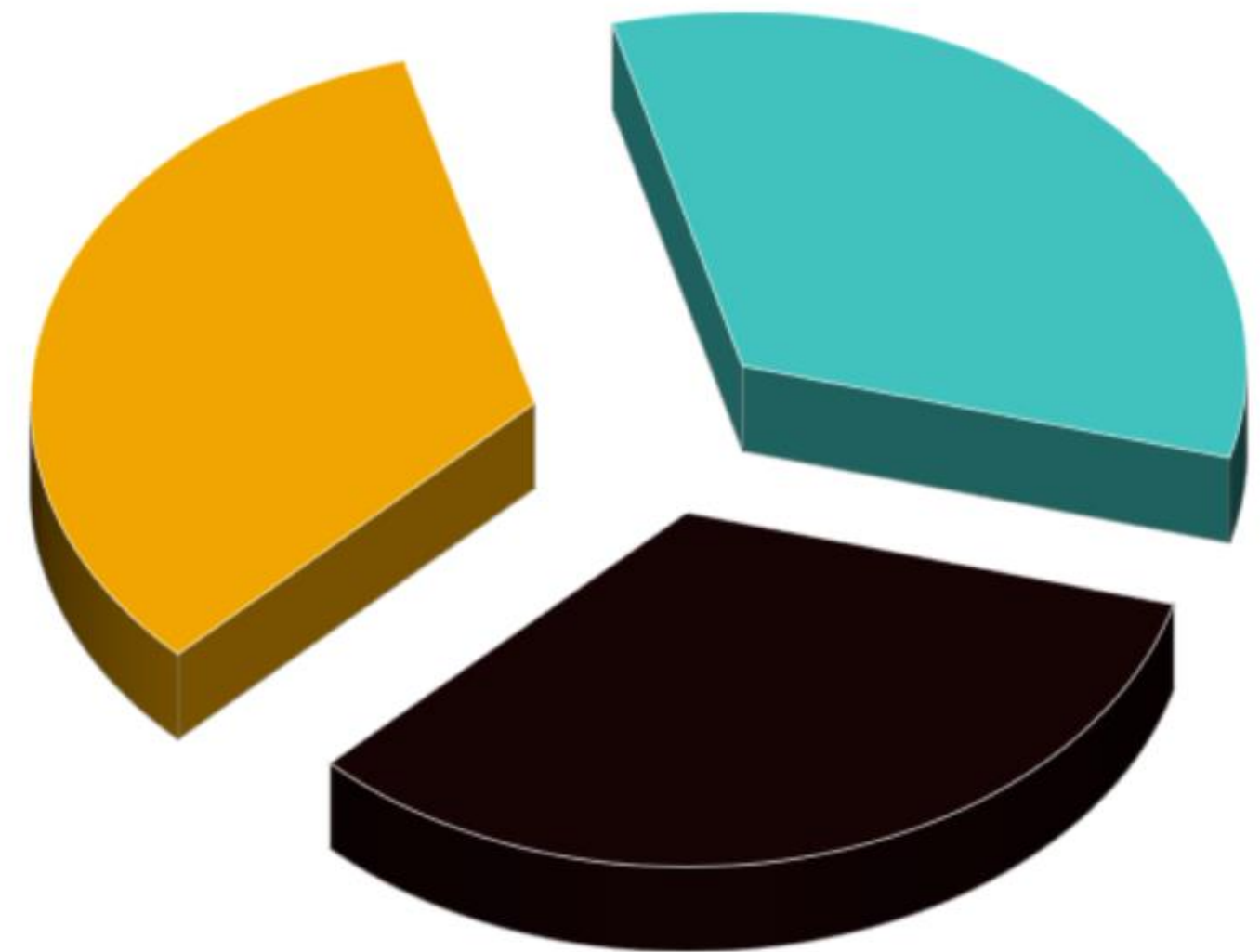
# Findings

*Both customized reports and general claims*

Overlap **peak hours** deliveries + arrival employees

- Unorganized, '**customer is king**'
- **1200** deliveries from **480** individuals suppliers
- **Parcels**: webshop orders employees
- Entrepreneurs from **outside** Amsterdam
- Lots of **opportunities** for efficiency gains

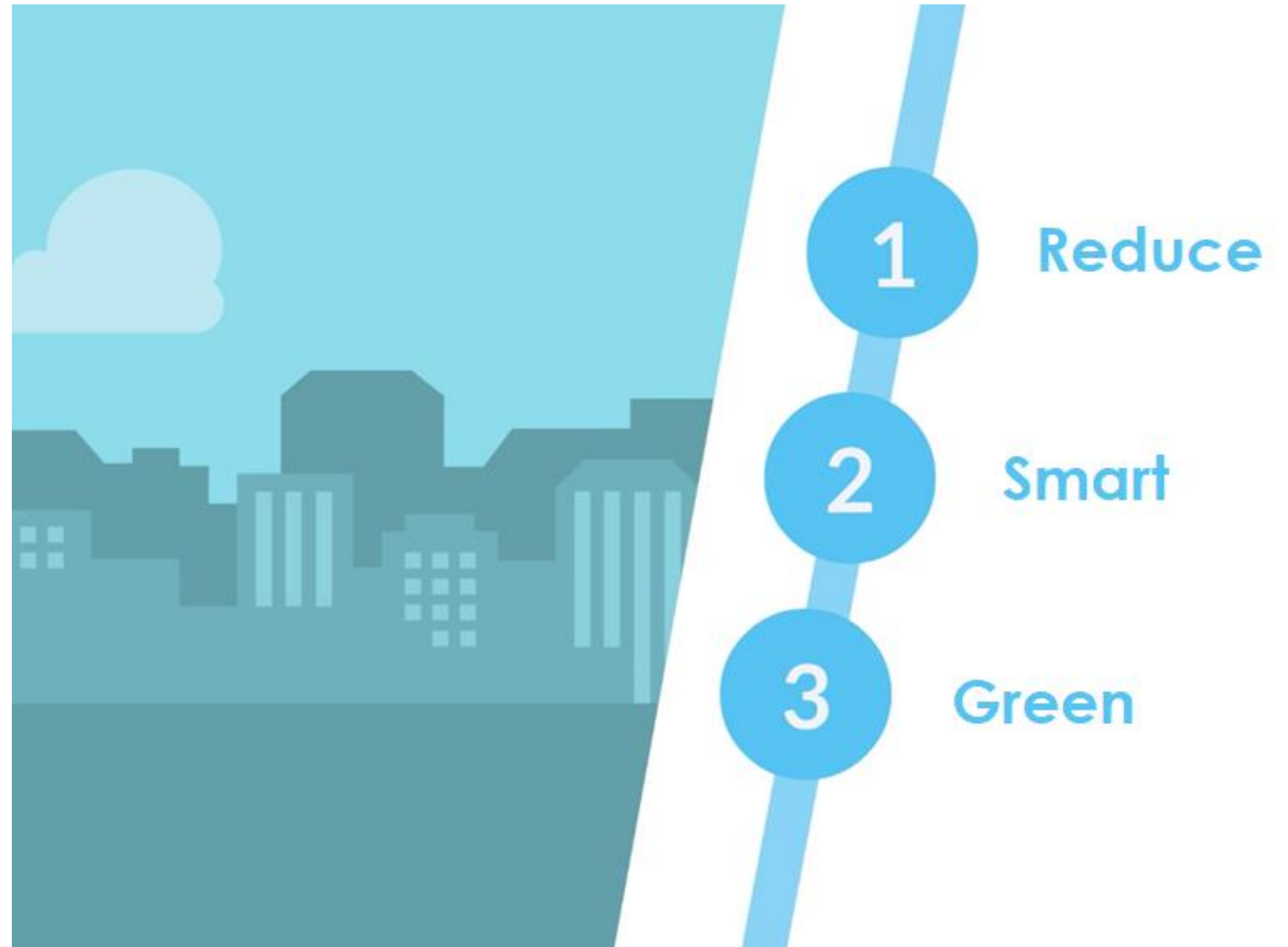
■ Food & Beverages ■ Parcels ■ All others





# Implementations

- **Hub:** pilot with Hulshoff, bundling facility services goods
- **Local Catalogue:** buy local, commit to sustainable relationship with local entrepreneurs
- **Post & Parcels:** MyPUP parcel lockers for employees
- **Multitenant approach:** combine others, increase volume and reduce stops
- **Zero Waste Zuidas:** focus reducing waste and local processing





# From emissions to space



Focus on reducing **emissions** has downsides:

- How do you measure?
- Zero emission always preferable over fossil fuel?
- Where is the impact?

Move towards **SPACE**:

- Public space
- Space in loading docks
- Space in offices







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# Thank you!

Do you have any questions?

Ask **Bram Kin**, [bram.kin@tno.nl](mailto:bram.kin@tno.nl)

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