

NEW ENERGY FORUM

19 juni 2025 | Groningen

Breaking Barriers

AGENDA FOR TODAY!

Citylogistic 2.0

*Let's talk about
our shopping
habit!*

Frank Pierie

Alex van Spyk

Niels Huttenhuis



<https://www.istockphoto.com/nl/fotos/pakketbezorger?page=2>

So, what is our shopping habit?

Join at [menti.com](https://www.menti.com) | use code 5472 8546



Instructions

Go to

www.menti.com

Enter the code

5472 8546



Or use QR code

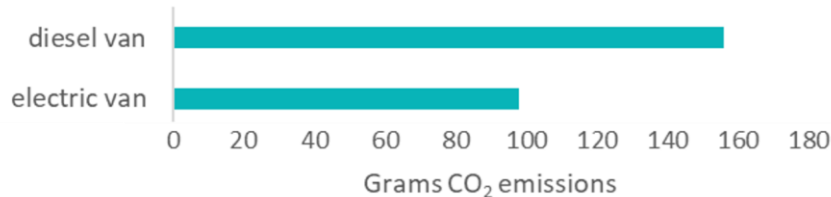


Emissions per package

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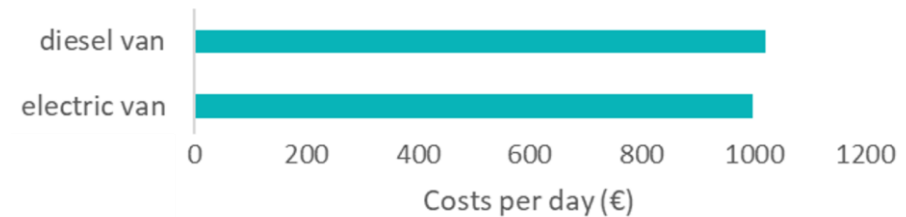
Below the emissions per stop in an average delivery chain, delivering packages from door to door

CO₂ emissions per stop per scenario



Below the daily operating cost average delivery chain, delivering packages from door to door

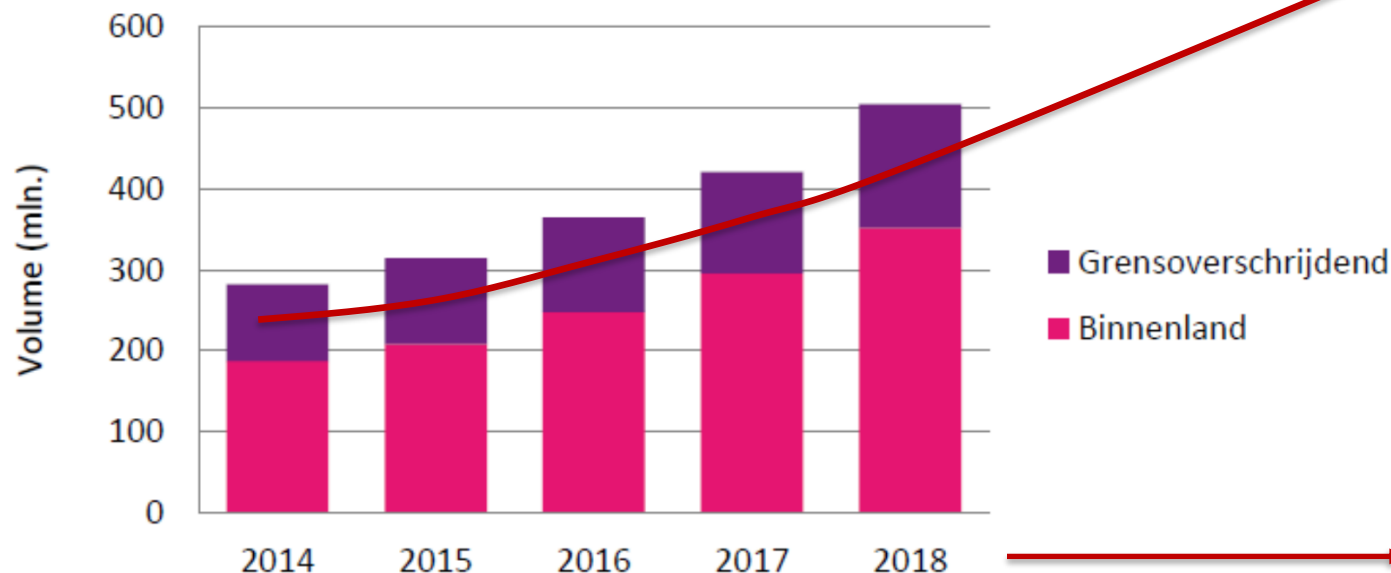
Daily costs per scenario



Number of packages delivered in NL

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Volume 2014-2018



**700 million
and counting?**

Rapport Marktstudie last mile pakketbezorging: <https://www.acm.nl/sites/default/files/documents/2020-05/marktstudie-last-mile-pakketbezorging.pdf>

This results in!

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7.000.000 x 0,16 kg = 1.120.000 kg of CO2 per year

*And package delivery is projected to rise even further in
the coming years.*

SO, WHAT TO DO?

Innovate package delivery

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EIN ENERGIENEUTRALES KONZEPT FÜR DIE LETZTE MEILE / EEN ENERGIENEUTRAAL CONCEPT VOOR DE LAATSTE MIJL



The goal of the project

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Objective: *To make inner-city logistics more climate-friendly using an innovative, intelligent and sustainable distribution system:*

- *Energy neutral concept for last mile delivery*
- *No local emissions*
- *Minimal Life Cycle impact*
- *Attractive business case*

Partners and Region

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Drivers of Change



Energie bewegt den Nordwesten



Hanze University of Applied Sciences Groningen

DYNTAQ

Fulpra



university of groningen

faculty of economics and business



Associated Partner:



Mobiliteit en Infrastructuur Test Centrum



INNOVATIEF CONCEPT

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STAP 1: MINIHUB

- MODULAIRE CONSTRUCTIE, TRANSPORTABEL, LOCATIE NAAR KEUZE
- AUTONOOM: ONAFHANKELIJK VAN ELEKTRICITEITSNET EN NUTSAANSLUITINGEN
- RUIMTE VOOR ROLCONTAINERS, OPSLAG, OVERSLAG
- OPLADEN EN STALLEN VAN LEFV's
- DECENTRALE OPERATIE
- OPTIE VOOR DE “LAST MILE” DISTRIBUTIE



STAP 2: LEFV (LIGHT ELECTRIC FREIGHT VEHICLE)

- ACCENT OP SNELHEID, BEREIK, ENERGIEVERBRUIK, STABILITEIT, ROBUUSTHEID
- VERVOERT TWEE STANDAARD ROLCONTAINERS
- INNOVATIEF COMMUNICATIESYSTEEM TUSSEN MINIHUB EN LEFV



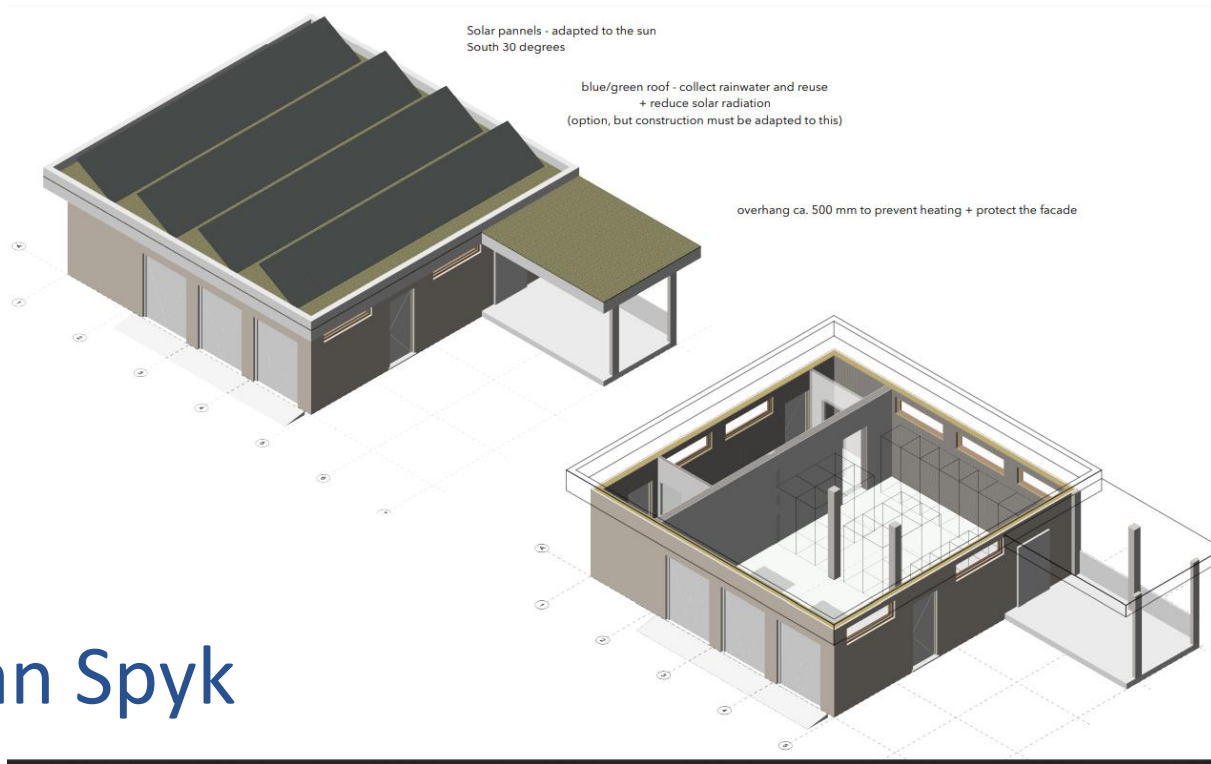
Concept of the Minihub

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STEP 1!

EXISTING CONCEPT MINIHUB

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Alex van Spyk



(Ko-)finanziert von
der Europäischen Union
(Mede) gefinancierd
door de Europese Unie

Deutschland – Nederland

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CAMPUS LOCATION - ACCESSIBILITY

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Concept of the LEV

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STEP 2!

The LEV 2.0

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Fulpra



Niels Huttenhuis

What can this concept save?

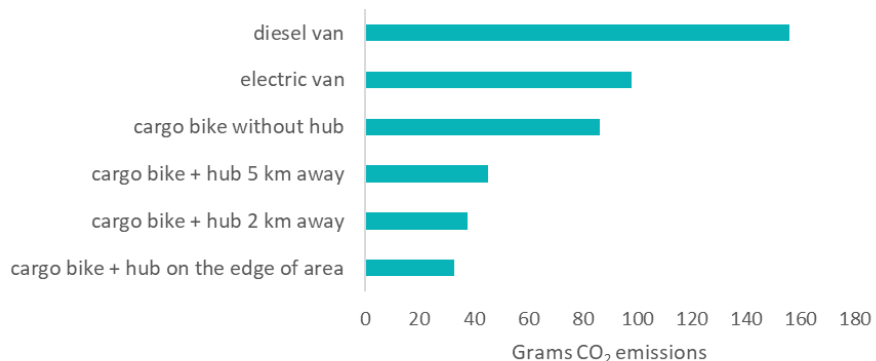
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CONCLUSION

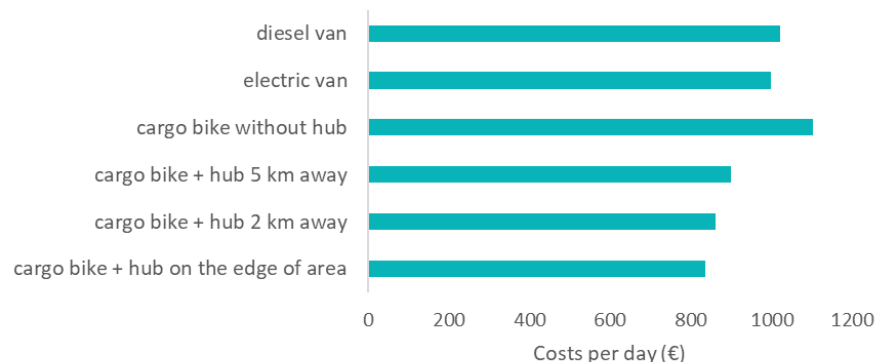
Sustainable parcel delivery scenarios

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CO₂ emissions per stop per scenario



Daily costs per scenario



Cargo bikes always reduce daily CO₂ emissions compared to diesel and electric vans

The closer the hub can be to the delivery area, the lower the daily emissions and costs

This results in!

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1.120.000 kg of CO2 per year

TO

245,000 kg of CO2 per year

78% Reduction in emissions!!

THANK YOU FOR YOUR ATTENTION

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QUESTIONS?

Follow up!!

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If you have additional questions or want to know more, join our stand or our VR experience here at the New Energy Forum.

