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Europe**



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ZCI

# EV Charging infrastructure strategies Mechelen

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# TEAM MOBILITY

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# CONTENTS

- Evolution and vision
- Flemish tenders for charge point operators
- Projects in Mechelen



# EVOLUTION AND VISION

- Europe

*"In December 2019, the Commission adopted Communication 2 on the European Green Deal. The European Green Deal calls for reducing greenhouse gas emissions from transport by 90%. The aim is to make the EU economy climate neutral by 2050 while reducing pollution to zero. In September 2020, the Commission adopted its proposal for a European climate law. This stipulates that by 2030 net greenhouse gas emissions must be at least 55% lower than in 1990 and that Europe must set a responsible course to become climate neutral by 2050."*

- European Directive on the deployment of alternative fuel infrastructure (better known as the Clean Power for Transport or CPT Directive) [published in 2014]
- Proposal of European regulation on the deployment of alternative fuel infrastructure (successor to the CPT Directive)
- European Directive on Energy Performance of Buildings and Energy Efficiency (better known as the EPBD Directive) [published in 2018]



# EVOLUTION AND VISION

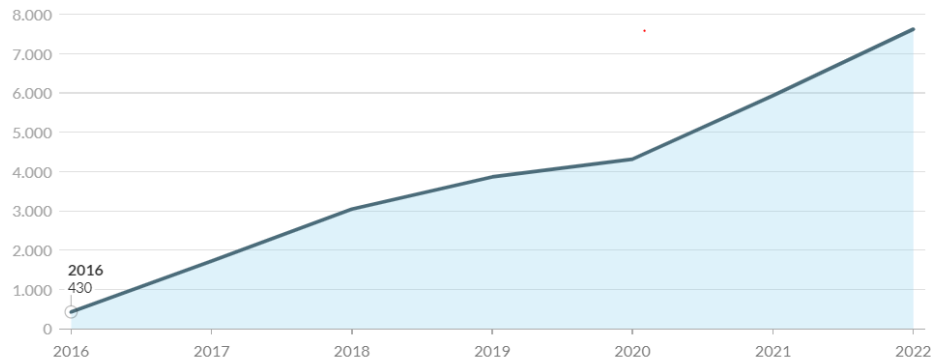
- Flanders
  - Flemish concept note: "Approach to charging infrastructure rollout 2021-2025" [published in 2020].
  - Flemish decree containing general provisions on energy policy (better known as the Energy Decree) [published in 2020] (chapter XI/1 deals with electromobility)
  - Flemish CPT Vision 2030: towards zero-emission transport [published mid-2021].
  - Flemish decree on zero-emission vehicles and vehicles powered by alternative fuels [published mid-2021]
  - Decree of the Flemish Government (BVR) on charging infrastructure for electric vehicles [published end 2021].

# EVOLUTION AND VISION

- Flanders (end of 2022)
  - 7626 public charging points (+ 12,300 semi-public charging points)
- Mechelen (end of 2022)
  - 241 public charging points (+ 329 semi-public charging points)

Eind 2022 waren er in het Vlaamse Gewest 7.626 publieke laadpunten voor elektrische wagens. Dat zijn er bijna 18 keer meer dan in 2016. Toen waren er 430 publieke laadpunten. Tussen 2021 en 2022 steeg het aantal laadpunten met 28%.

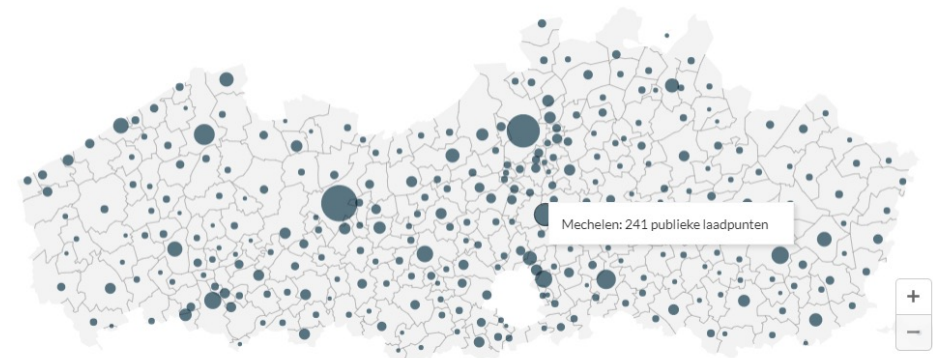
**Publieke laadpunten elektrische wagens**  
Vlaams Gewest, 2016-2022, aantal



Bron: Eco-Movement, Departement Mobiliteit en Openbare Werken

In de grotere steden zijn er meer laadpunten dan in de kleinere gemeenten. Eind 2022 was Gent koploper met 705 publieke laadpunten voor elektrische wagens, gevolgd door Antwerpen met 580 publieke laadpunten. Ook Mechelen, Brugge, Leuven, Hasselt, Zaventem, Kortrijk, Aalst en Oostende hadden op dat moment meer dan 100 publieke laadpunten op hun grondgebied. Alle Vlaamse gemeenten beschikken over minsten 1 laadpunt.

**Publieke laadpunten**  
Gemeenten van Vlaams Gewest, 2022, aantal

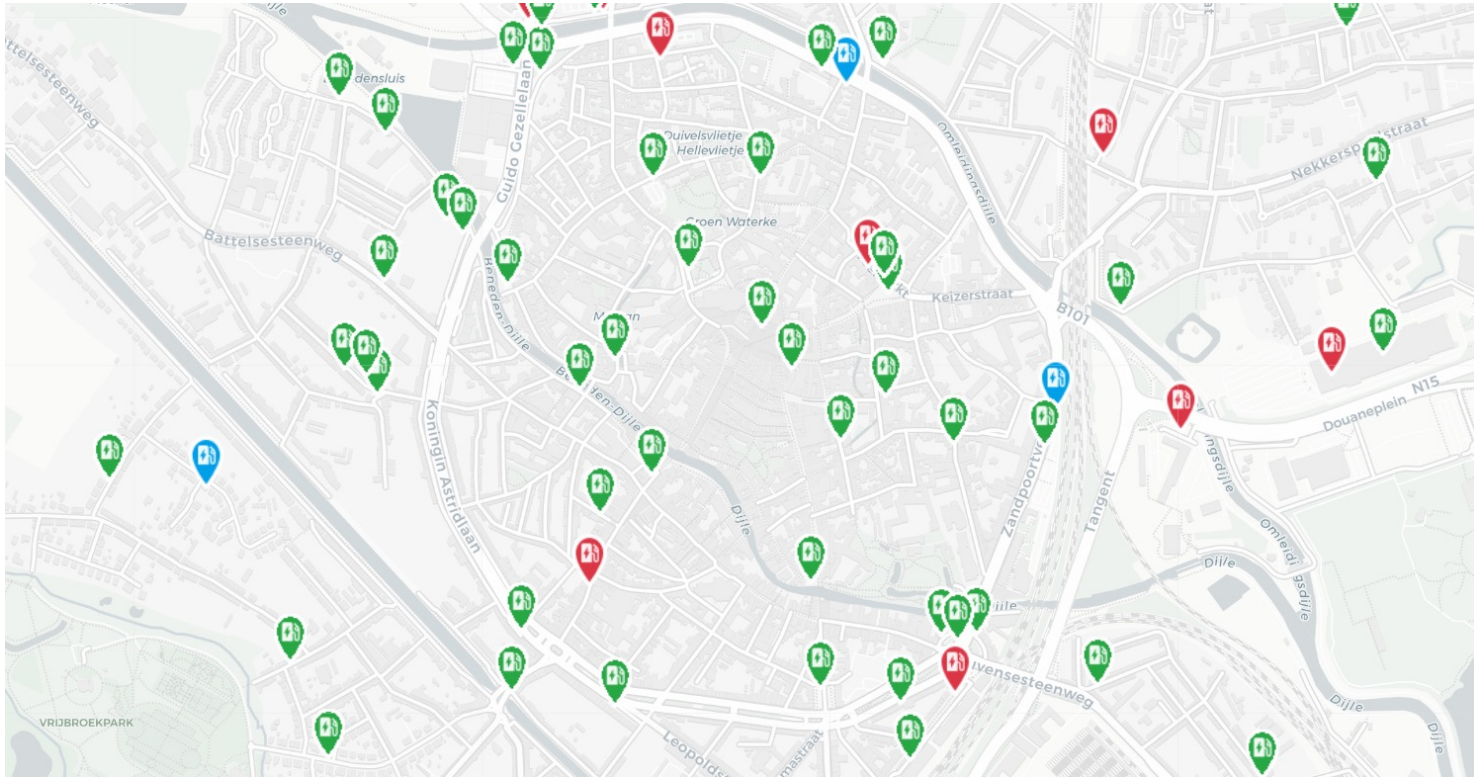


Bron: Eco-Movement, Departement Mobiliteit en Openbare Werken

# EVOLUTION AND VISION

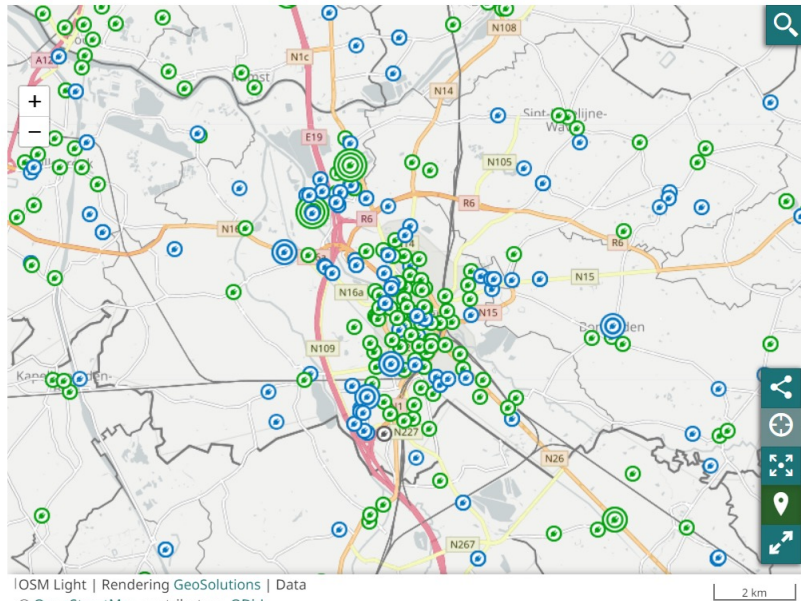
- Where can I find a charging station?

<https://www.mechelen.be/waar-vind-ik-een-laadpaal>



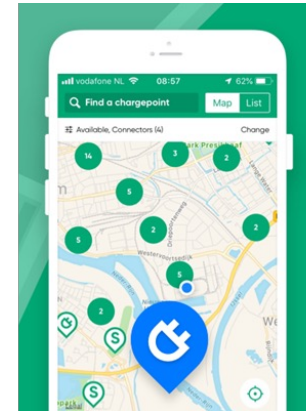
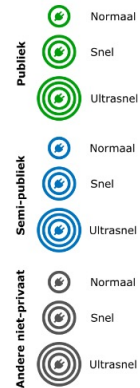
# EVOLUTION AND VISION

- Where can I find a charging station?



OSM | Rendering GeoSolutions | Data © OpenStreetMap contributors, ODbL

<https://mowvlaanderen.be/laadpalen>





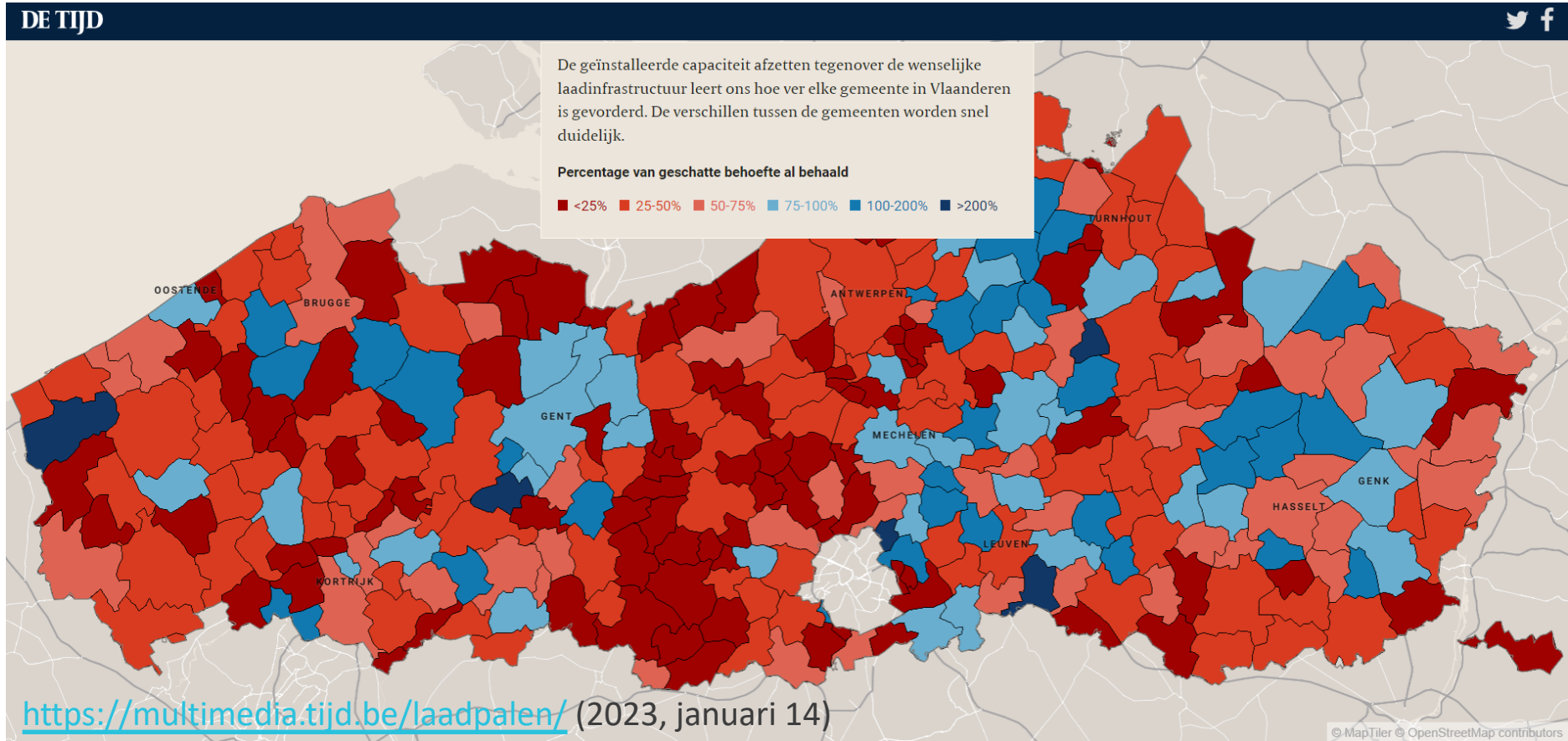


# EVOLUTION AND VISION

- Need for charging infrastructure
  - Flanders (2025)
    - 35.000 CPE (charge point equivalent)
      - Charge point 3-11kW = 1 CPE
      - Up to >150 kW power = 10 CPE
      - Semi-public charging points = 10 hours accessible (counting for half)
  - Mechelen
    - 578 CPE

# EVOLUTION AND VISION

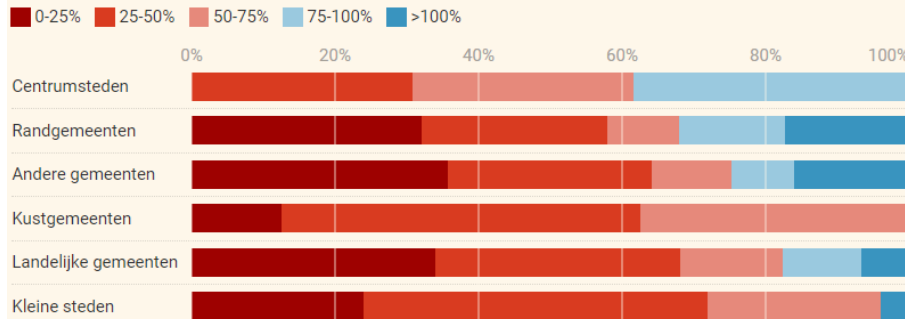
Percentage of estimated need already met



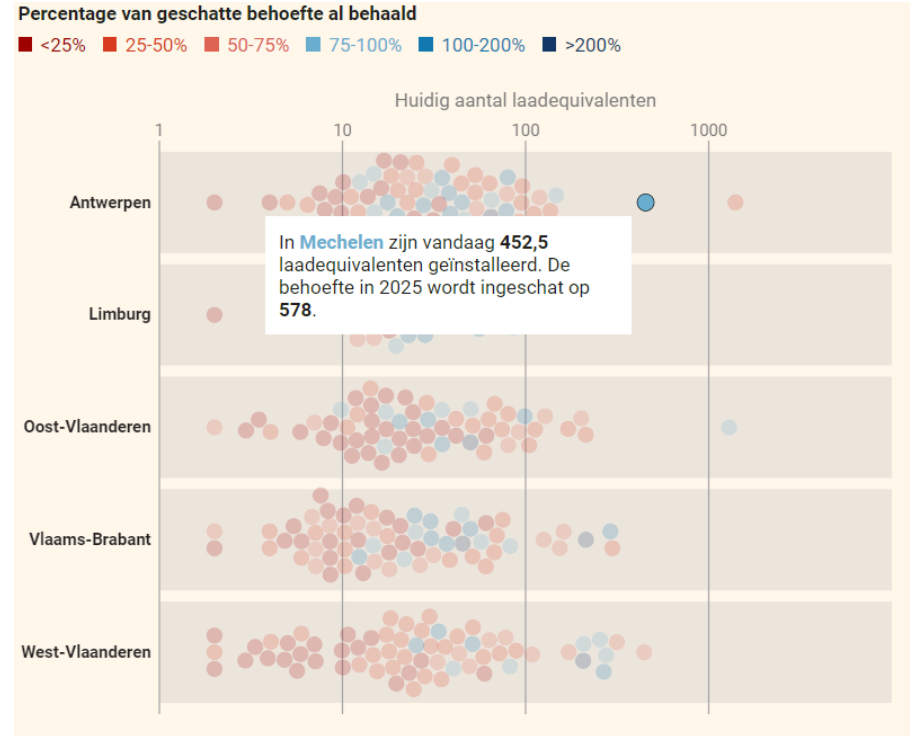
# EVOLUTION AND VISION

- Mechelen
  - 452,5 CPE
  - 78% of need by 2025

Gemeenten volgens aantal laadequivalenten ten opzichte van behoefteanalyse, per cluster



Grafiek: Analyse De Tijd • Bron: Departement Mobiliteit en Openbare Werken



<https://multimedia.tijd.be/laadpalen/> (2023, januari 14)



# EVOLUTION AND VISION

- Mobility vision statement (2020-2025)
  - Transition to sustainable vehicles
  - Development of a framework that organizes this transition
    - Facilitate implementation of charging infrastructure in public space
    - Shared mobility
    - Car fleet of the own organization
  - SPOILER >>> ZCI (Zero carbon infrastructure)



# EVOLUTION AND VISION

- Policy vision?
  - Green power for public charging stations
  - Maximum possible rotation (charging  $\neq$  parking)
  - Electrification of own fleet
  - Clustering charging infrastructure (steering policy)
  - Multiple use (semi-public)
  - Promoting parking outside city center
  - Car parks > street parking (curbside parking)
  - perpendicular parking > parallel parking
  - Combination with carsharing



# FLEMISH TENDERS FOR CHARGE POINT OPERATORS

- Deployment of charging infrastructure on the public domain

*"The Department of MOW (mobility and public works) organizes procedures (via tenders) for the installation, maintenance and commercial operation of electric vehicle charging points for normal (AC) and high (DC) power in public space. Through these procedures, the Department of MOW aims to appoint a Charge Point Operator (CPO) for each region." - Local Charging Guideline*

- 3 Strategies
  - Paal volgt wagen = “Pole follows car” (demand-driven)
    - Currently 39 active applications
  - Paal volgt paal “Pole follows pole” (demand-driven)
  - Strategic planning (supply-driven)
    - Normal charging stations
    - Fast charging stations



# FLEMISH TENDERS FOR CHARGING STATION OPERATORS

- Paal volgt wagen “Pole follows car”
  - Conditions
    - You are using an electric vehicle.
    - Only passenger cars (M1) and light cargo (N1) are eligible.
    - You do not have your own parking facilities.
    - Your request is compatible with local parking regulations.
    - No publicly accessible charging point is available within 250m walking distance from the residence.

## Publieke laadpaal aanvragen

Als burger, onderneming of taxi-/deelwagenbedrijf kunt u via een online formulier een publieke laadpaal aanvragen op het openbaar domein. Als u zelf geen plaats hebt voor een laadpaal en een bestaand publiek laadstation te veraf is, kunt u zo toch een paal op maximaal 250 meter van uw deur verkrijgen.

[Naar het e-loket](#) 

- Paal volgt wagen = “Pole follows car”
  - Actors involved
    - Department of MOW (mobility and public works)
    - CPO (Engie, within current tender)
    - Fluvius = network operator (connection to the 400 V-network)
    - Road authority = cities and municipalities / AWV (regional traffic agency)
      - City of Mechelen



- Paal volgt wagen = “Pole follows car”
  - Role of city = road authority
    - Approve location proposals provided by CPO
    - Organizing the parking lots (including placing traffic signs and applying road markings)
    - Adopt additional regulations for electric vehicles

# PROJECTS IN MECHELEN

- Projects managed by city



- Archie pilot project

- Questions 'charging cable over sidewalk'
- Neighbors share charging station on facade of their residence
- Currently 'on hold' due to nullification of utility law by RVS

- Charging station near electricity cabins on sidewalk

- Proximus pilot (telephone and internet company)
- Filling gaps in 400V network

- Energy management with solar panels and charging stations

- Case Waterduivel building
- Linking solar panels to electric fleet with energy management system



# PROJECTS IN MECHELEN

- Projects with European grants
  - Access (final event April 18, 2023)
    - Smart and low-carbon energy systems
    - Keerdok car park
  - ZCI (started March 2023)
    - Zero carbon infrastructure
    - Drafting policy document electric vehicles
  - Select (in application)
    - Charging infrastructure for logistics
  - Every (in application)
    - Promotion and use of PV and electric mobility in social (housing) projects

# DON'T FORGET!



## De plaats van deelwagens in een gezond en duurzaam mobiliteitsbeleid

