

# Electric Vehicle Integration into the grid

Distribution Utility Meet (DUM 2021)

November 18<sup>th</sup> 2021

Elaadnl





# The Netherlands has ambitious goals for the Electrification of Transportation

The EU targets 2035 to achieve its Zero Emission transport goals

The Netherlands targets 2030 for its Zero Emission transport goals: e.g. all new passenger cars and all busses in operation must be 100% Z.E.

The Netherlands is the world champion when it comes to the charging station per inhabitant ratio, full roaming since 2015

Energy demand for mobility will match the energy demand for households by 2035





# The Dutch Grid Operators are preparing for the Electrification of Transportation

## Three step approach

1

Market Outlooks: what can we expect, when and where?

2

Grid modeling: resource planning, identifying hotspots, target Smart Charging

3

Financing





# ElaadNL Outlooks per modality

Approach: market research, interviews, with EV manufacturers, policy makers, consumers, Academia, fleet operators, logistics sector etc, data analyses, modeling

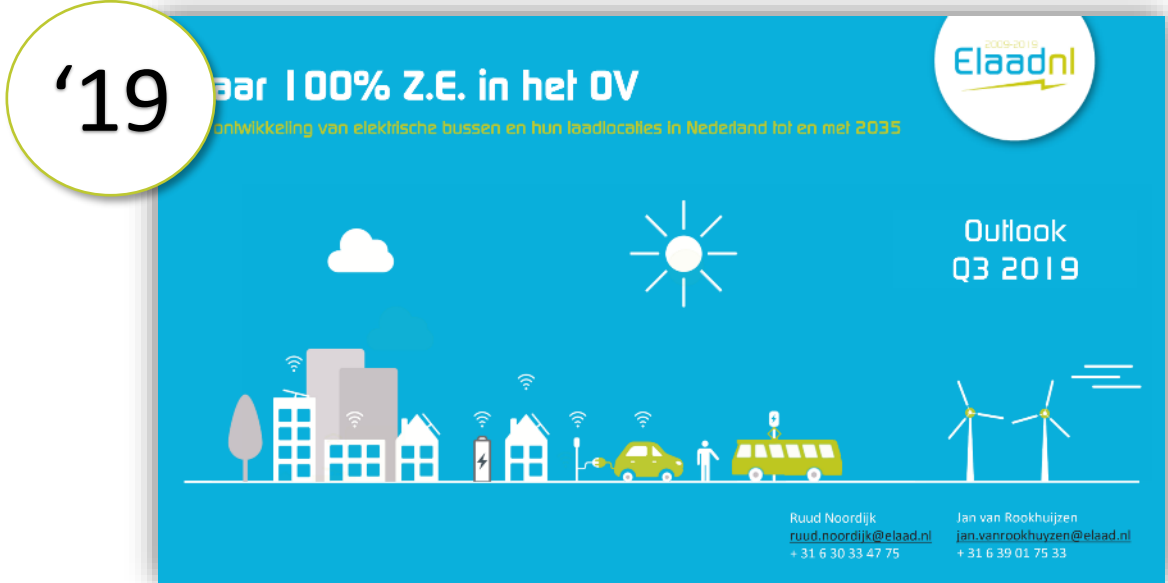
## Pasenger cars



## Fast Chargers



## Public Transport Busses



## City Logistics Trucks



## Delivery Vans



## Long Haul Trucks



## Inland Shipping



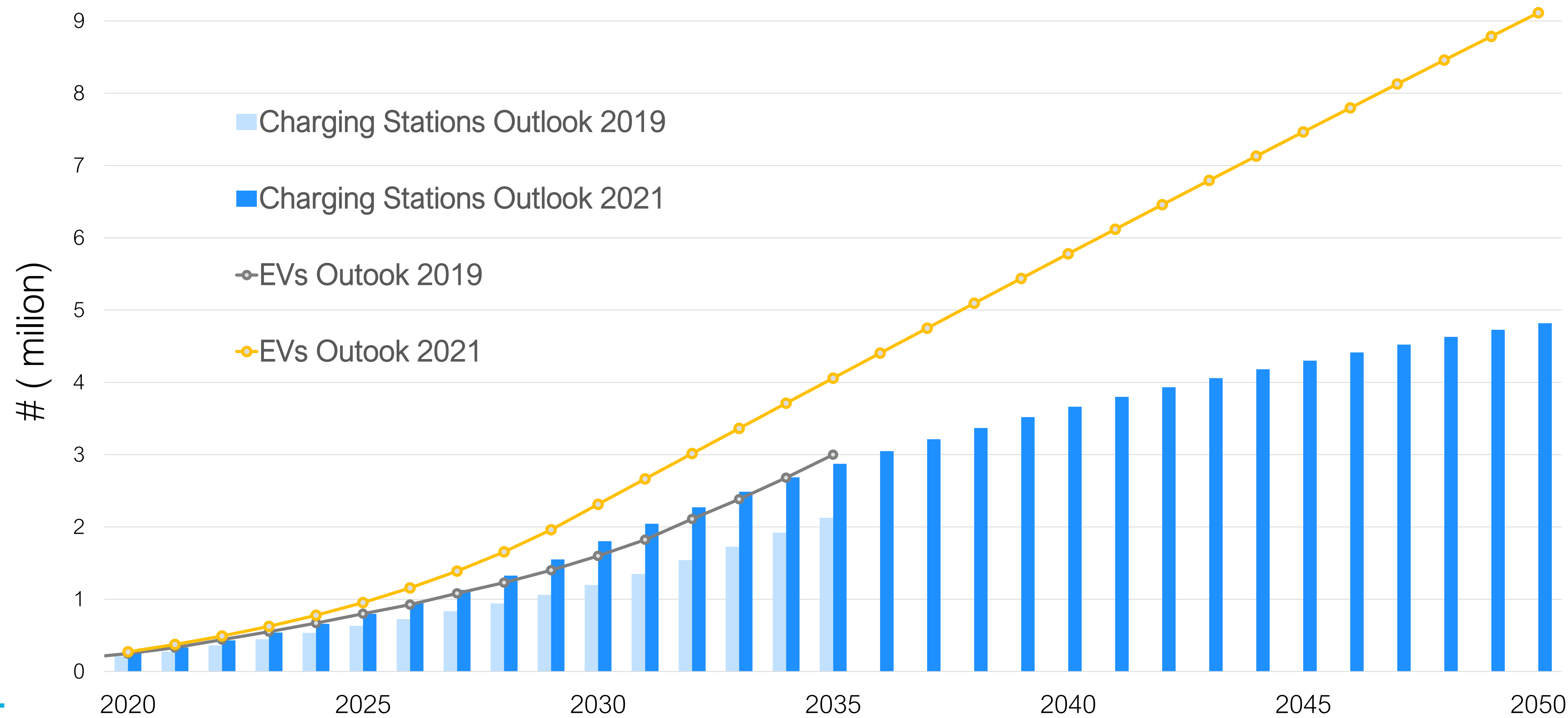
## Building Equipment



# Update of the Dutch EV prognoses in 2021 - EV uptake is above expectation!

We see 30% more EV's and 35% more charging stations compared to the 2019 prognosis

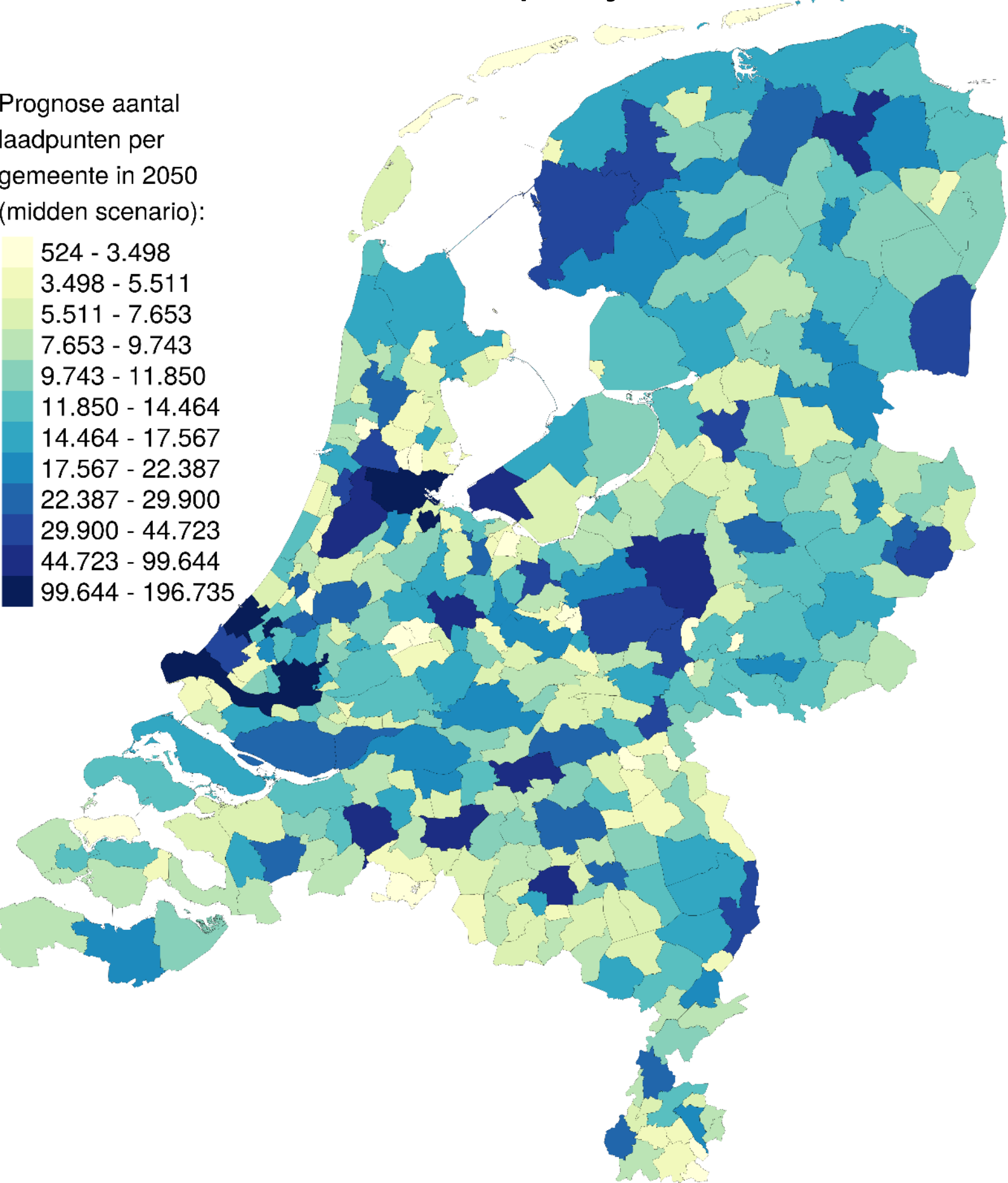
Prognosis # EVs and charging stations Outlook 2021 vs 2019



# Regional spread charging infrastructure

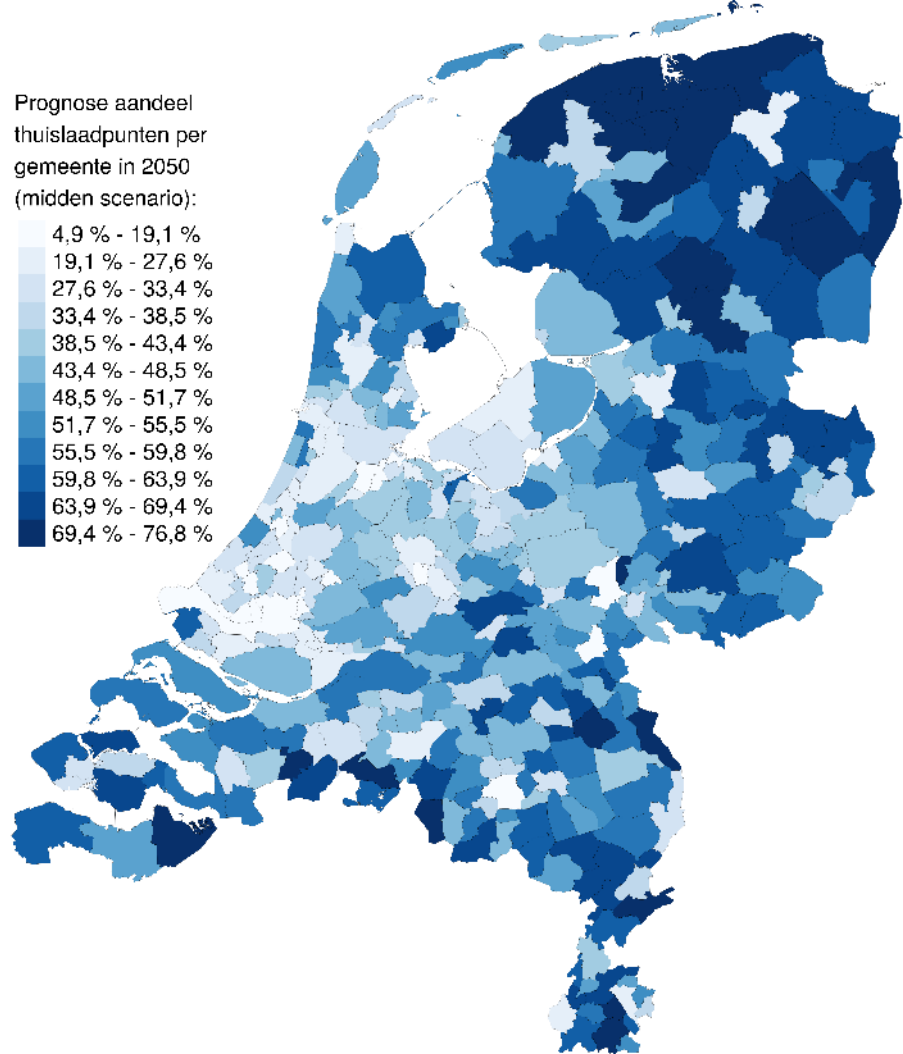
>3.000 EV 'hotspots' in 2025

Prognosis absolute spread of charging infrastructure per municipality in 2050

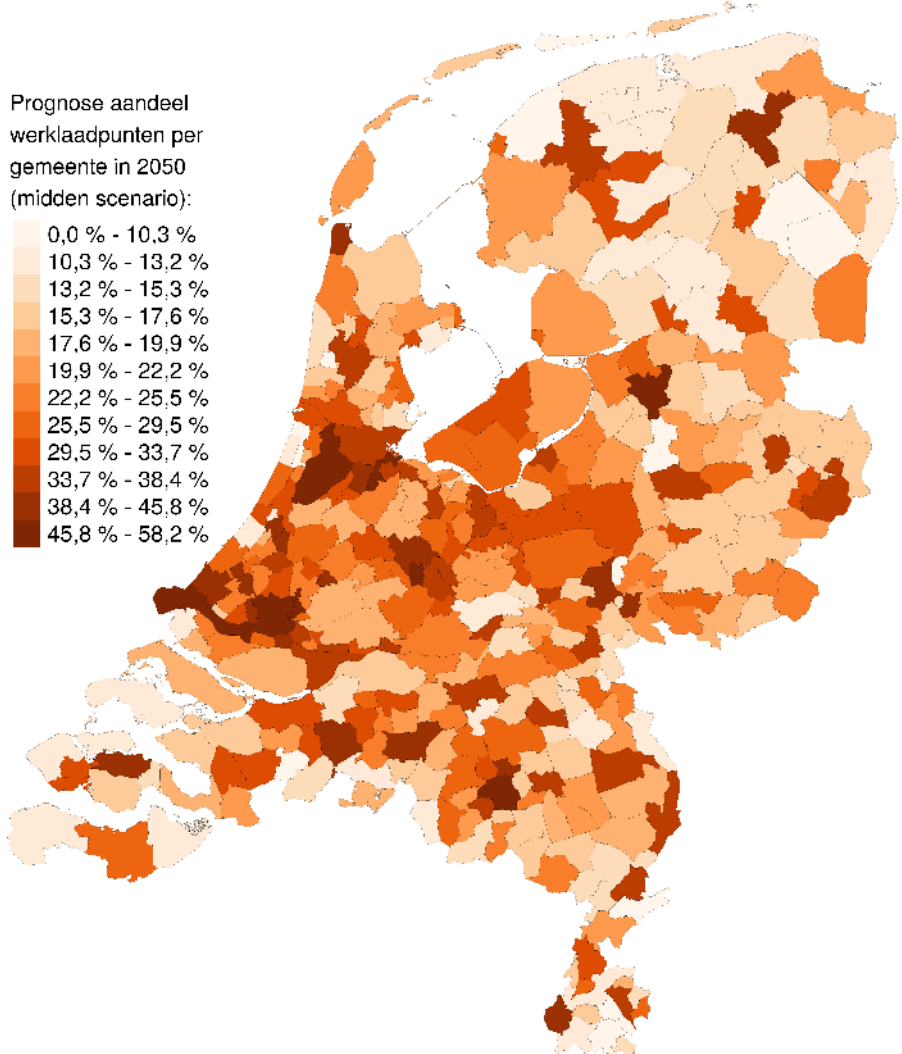


Prognosis relative spread per type of Charging Infrastructure per municipality in 2050

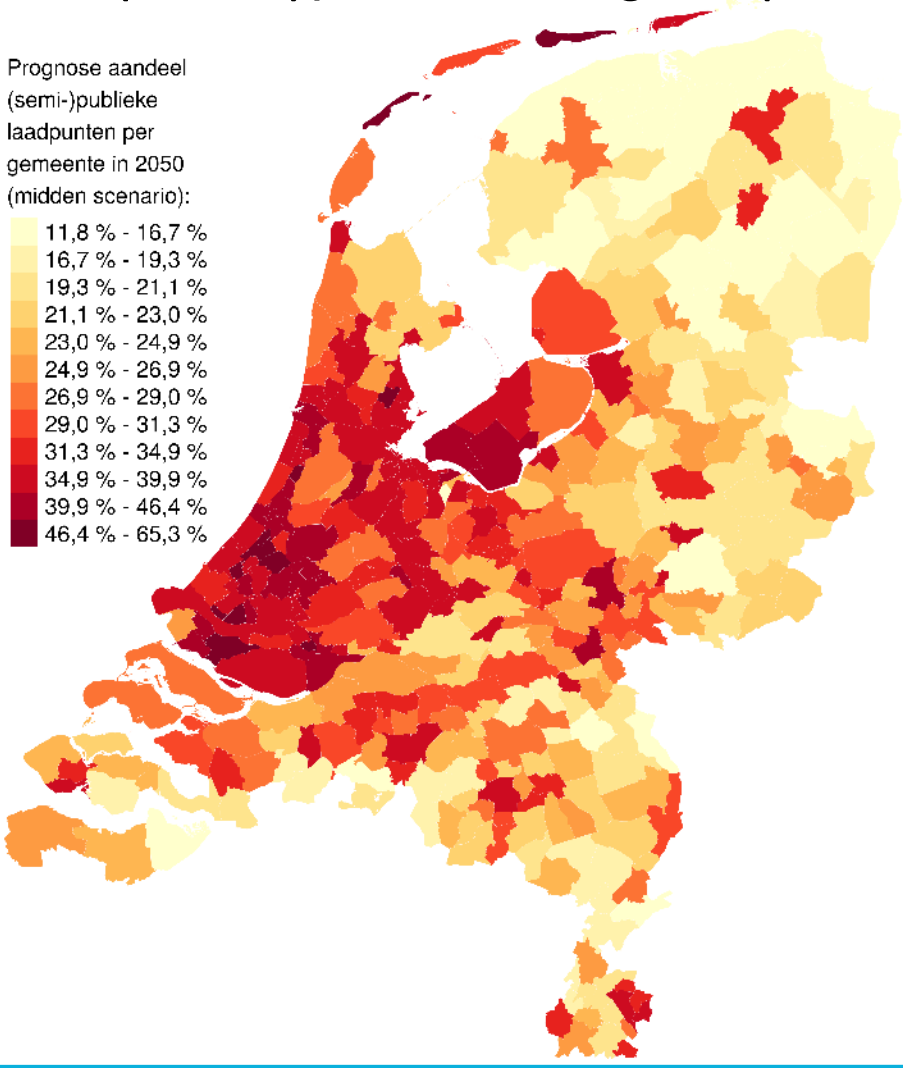
Home Chargers (40,8%)



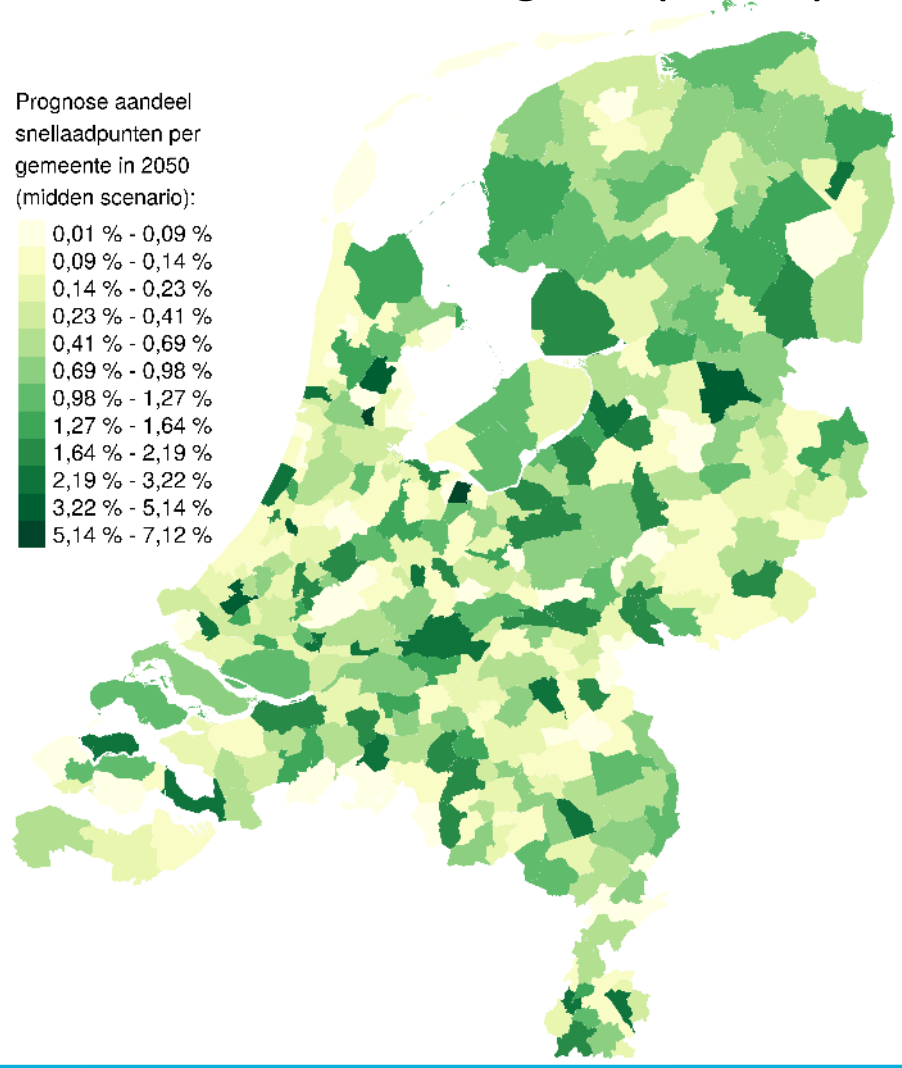
Workplace chargers (28,4%)



(Semi-)public chargers (30,1%)



Fast Chargers (0,6%)







For more information:  
[Lonneke.Driessen@Elaad.nl](mailto:Lonneke.Driessen@Elaad.nl)