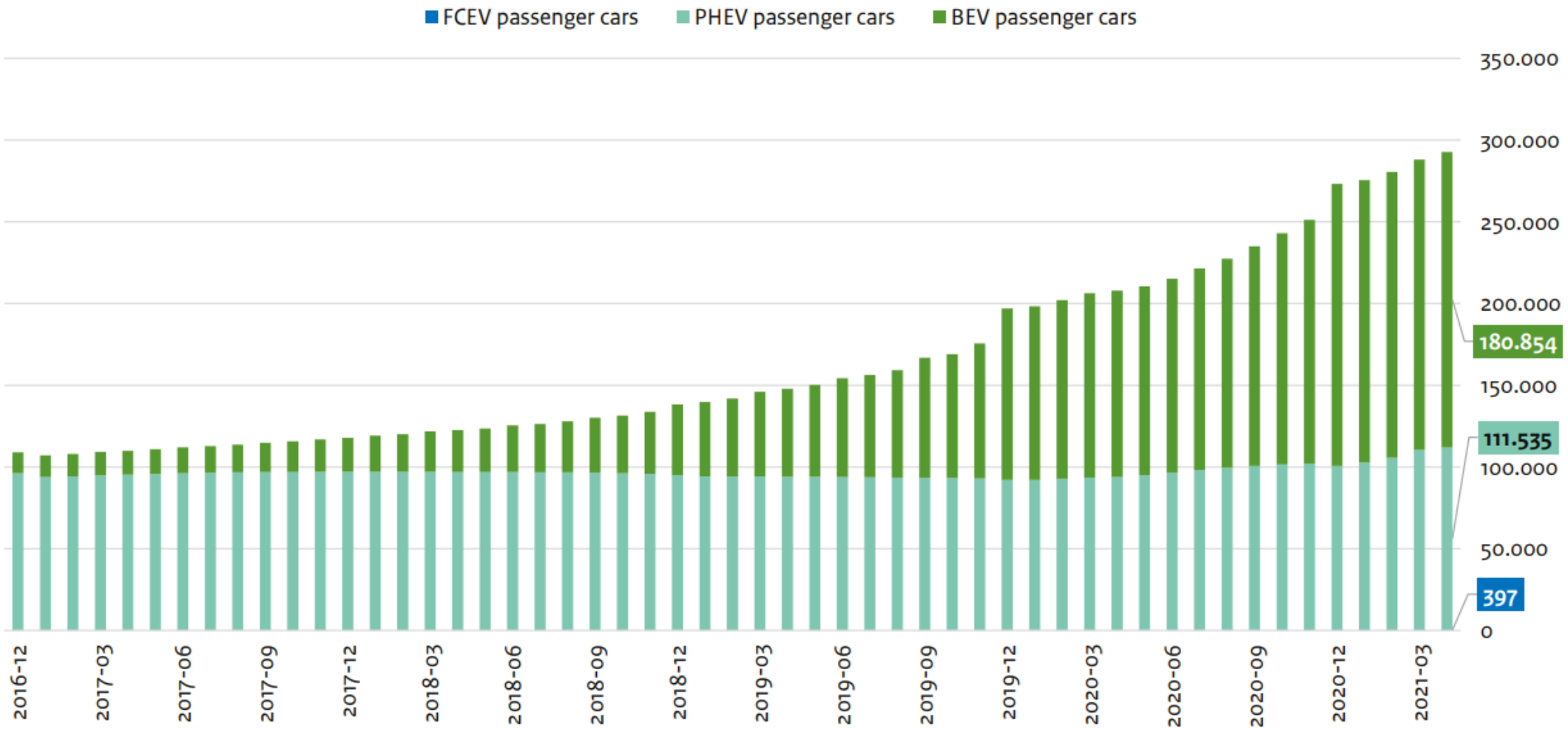
CHAdeMO 2021

V2G, roll out and best practices

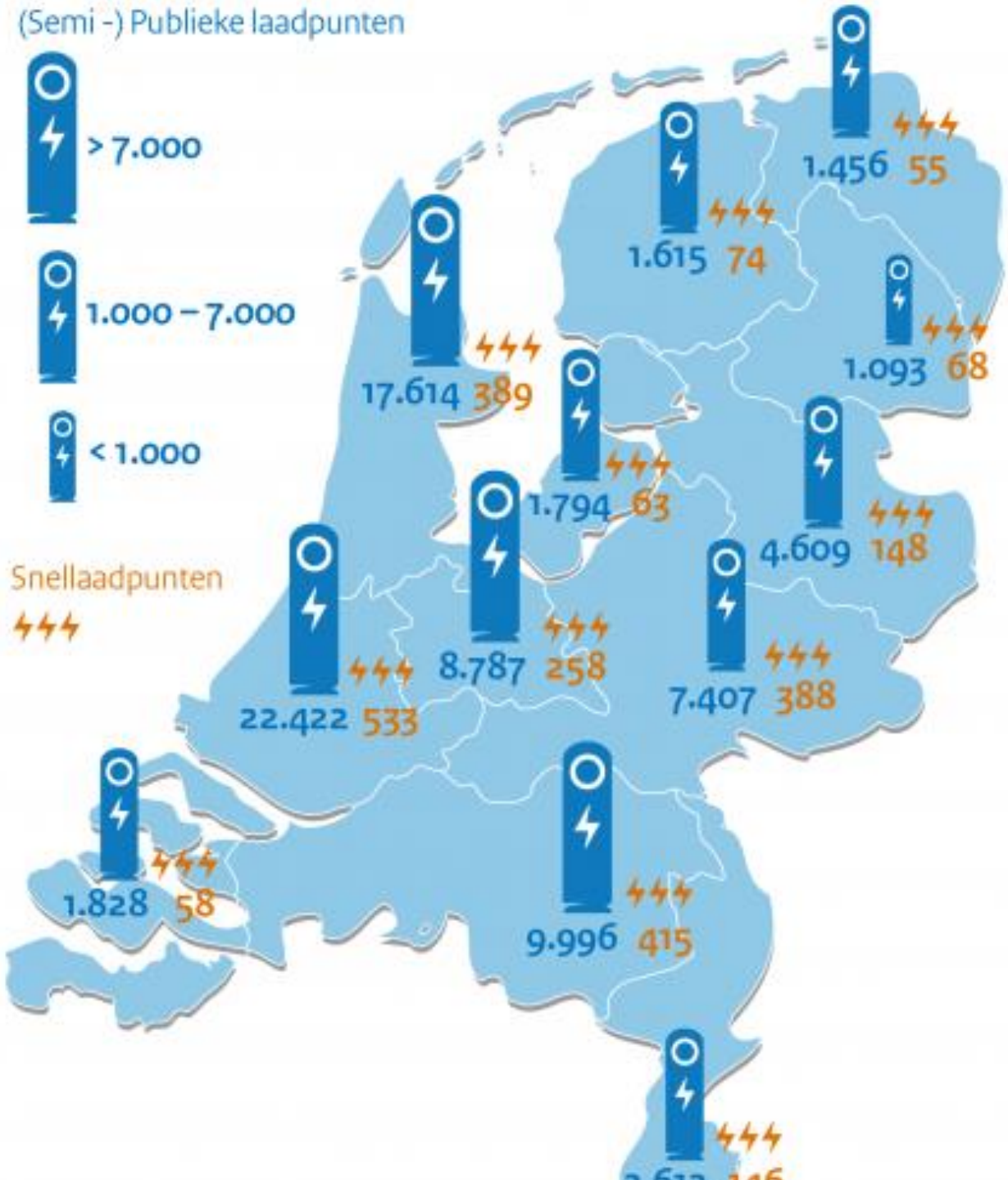
Fleet: Registered EV passenger cars

The graph below visualizes the amount of registered EV passenger cars (M1) in the Netherlands over time.

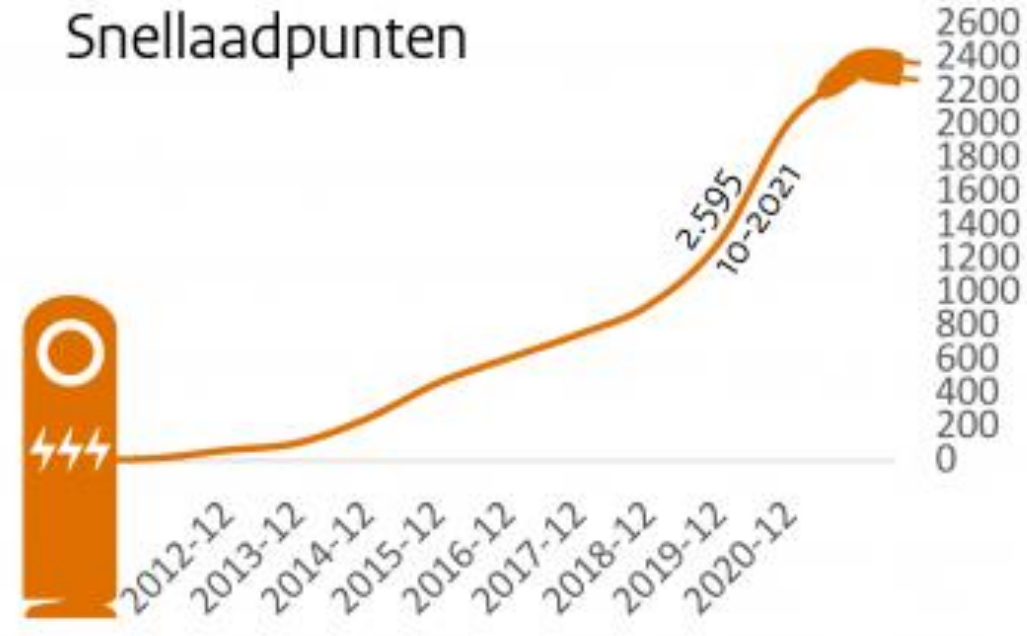
BEV = Battery Electric Vehicle, **FCEV** = Fuel Cell Electric Vehicle, **PHEV** = Plug-in Hybrid Electric Vehicle



Source: Dutch Road Authority (RDW), edited by Netherlands Enterprise Agency (RVO.nl). The numbers represent the **vehicle fleet**, the cumulative registrations on balance. Stock-in-trade cars excluded. The increase is due to new registrations, used import and transfers from stock-in-trade to car owners. Decrease is due to export, demolition, theft, et cetera. PHEV excludes hybrid electric vehicles (HEV).

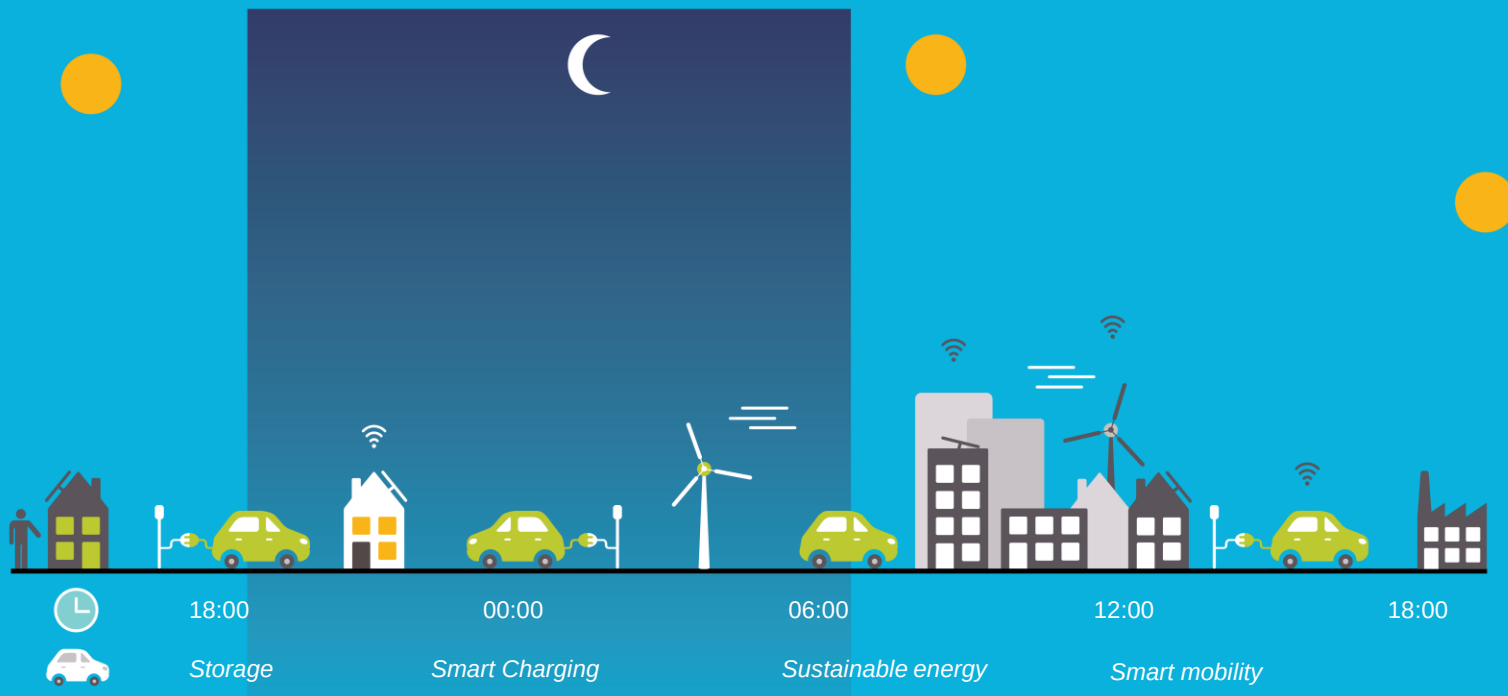

(Semi -) Publieke laadpunten
> 7.000
1.000 – 7.000
< 1.000
Snellaadpunten
1.456 55
1.615 74
17.614 389
1.093 68
1.794 63
4.609 148
8.787 258
22.422 533
7.407 388
1.828 58
9.996 415

(Semi -) Publieke laadpunten
80000
70000
60000
50000
40000
30000
20000
10000
0
80.233
10-2021
2012-12
2013-12
2014-12
2015-12
2016-12
2017-12
2018-12
2019-12
2020-12

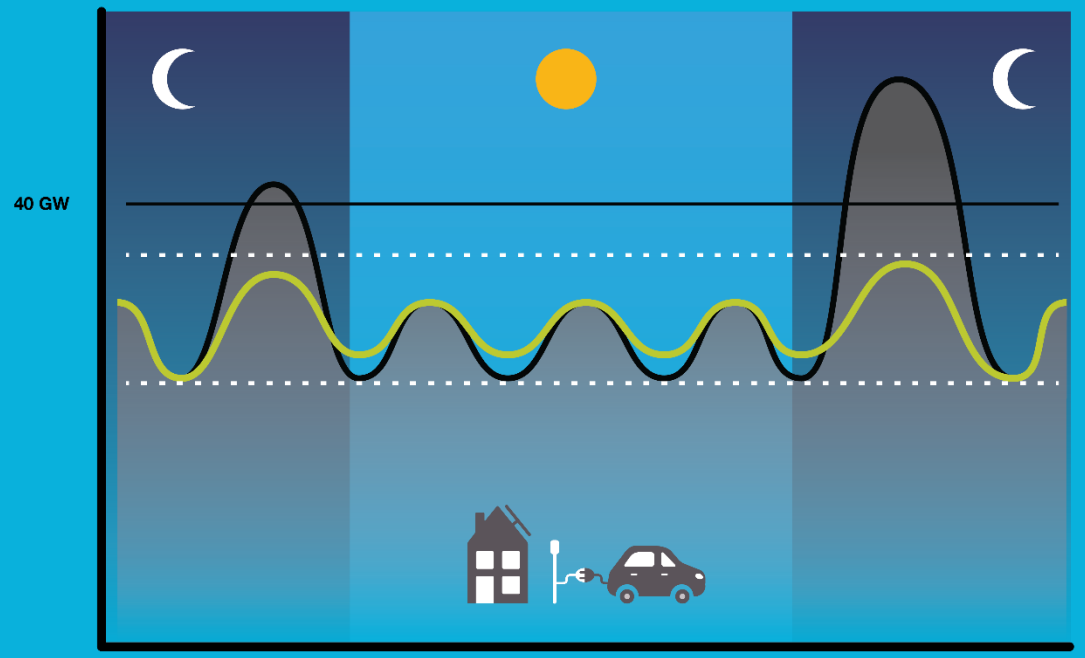

Snellaadpunten
2600
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
2.595
10-2021
2012-12
2013-12
2014-12
2015-12
2016-12
2017-12
2018-12
2019-12
2020-12

Electrification of e-mobility

VISION


18:00
00:00
06:00
12:00
18:00
Storage
Smart Charging
Sustainable energy
Smart mobility

The effect of Smart Charging



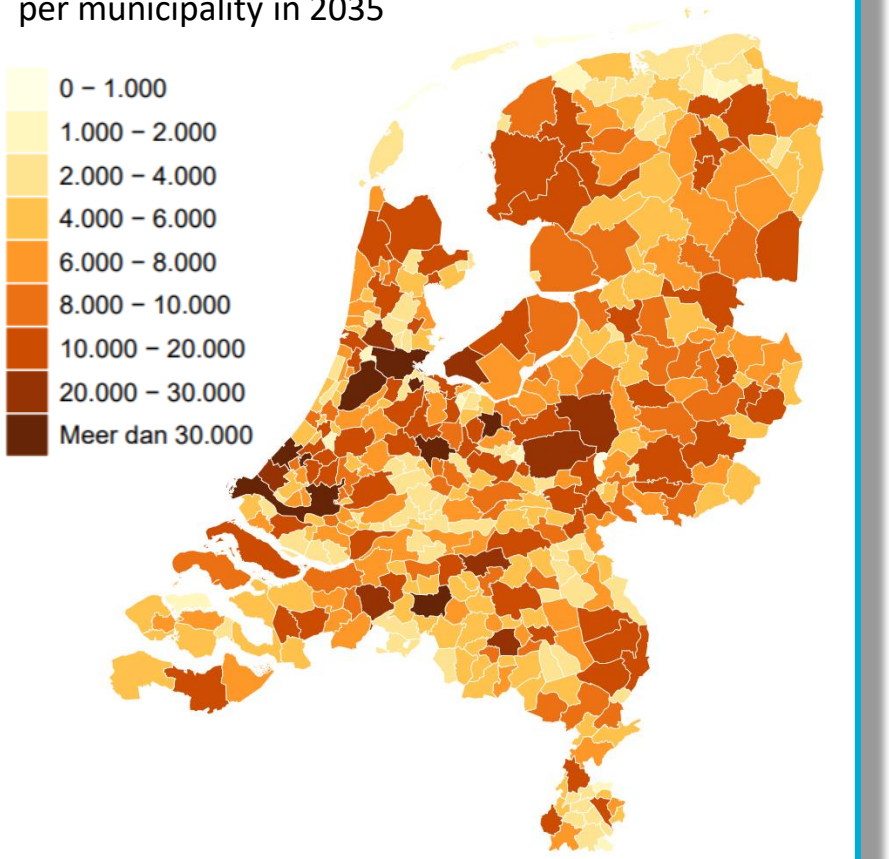
SMART CHARGING

Referentiescenario (Excl mobiliteit)	Dom laden	Slim laden	Super Slim laden	Super slim laden met V2G
# 25	# 48	# 30	# 25	# 6

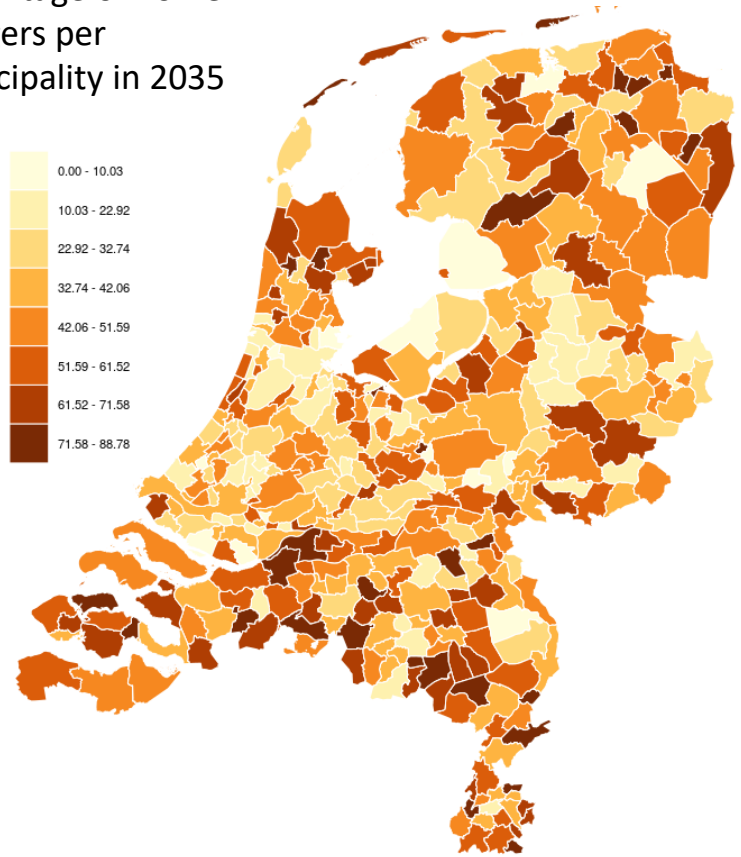
Innovative solutions

Data analytics

Number of EV's (mid scenario) per municipality in 2035



Percentage of home chargers per municipality in 2035



WE DRIVE SOLAR
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Standardisation

Research, development and testing

AC/DC?

- Smart roll out, smart charging
- Interoperability
- Open markets: Research & development