City of Rotterdam

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Rotterdam Municipality's Electric Mobility and Smart Charging Program

9-6-2017

Revieuw

Starting charging infrastructure since 2010 as pilots with municipal fleets, big (semi)private fleets and local electricity supplier (Eneco).

Rollout in 2012

Target: 1.000 charging points in 2014

At the end of 2016: 2.000 charging points

Tender realization, exploitation and maintenance public electric charging stations.

- **Scope**
- **Type**
- **Time frame**

-realization

-exploitation and maintenance

Concession model

- Limiting conditions
- Room to initiate innovations
- A higher return on investment
- Higher financial risk for the market player
- Maximum cost control by the government

- Concession provider sets timeframe

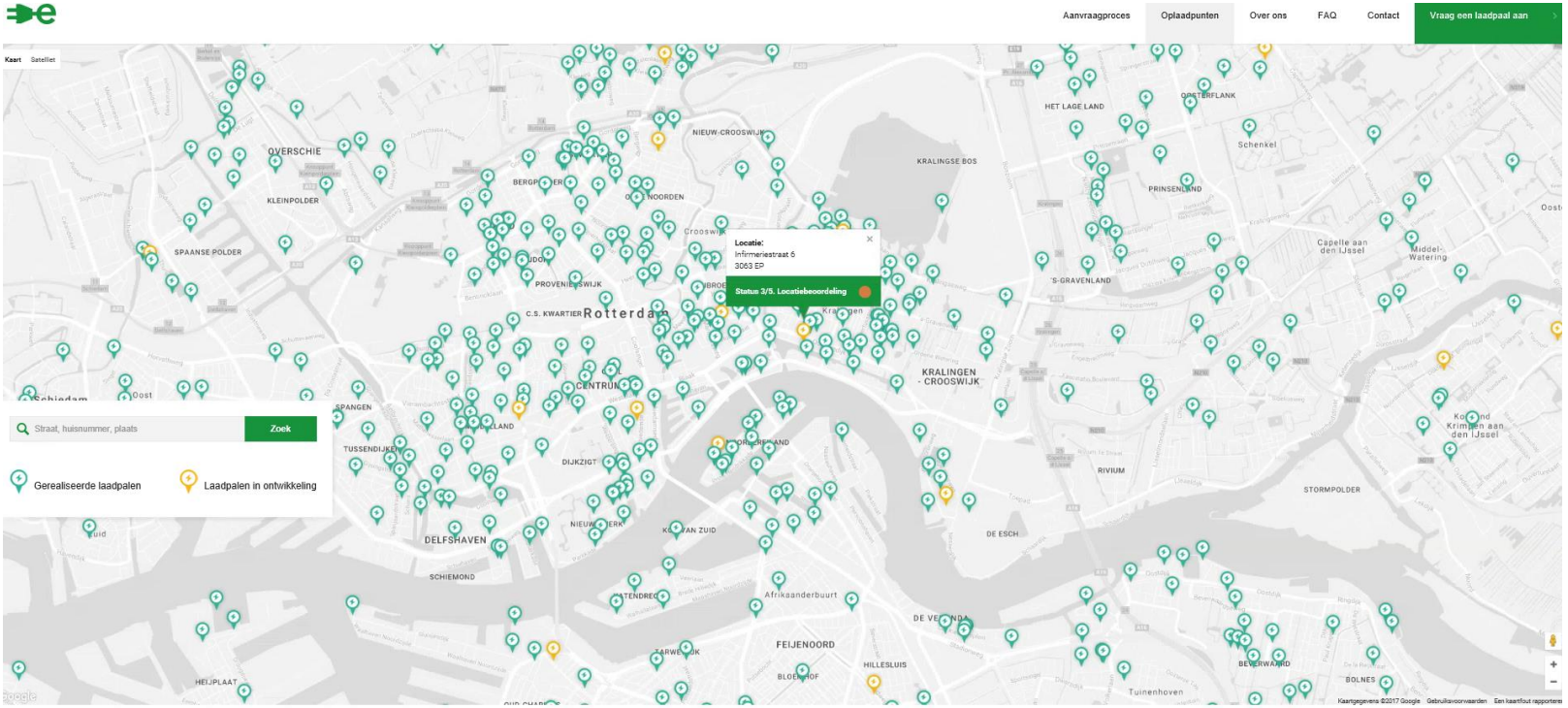
- Single price for the users
- One contact and one contract partner

EVCONSULT

Quality versus price

- Organization & communication plan
- Services for the electric car driver
- Innovations
- Sustainability
  - local generated renewable energy
  - sustainable production
  - sustainability realization
  - stimulating the local economy
  - social return

www.laadjeauto.nl
Application and realization process



Location determination: preferences

- Charging station is findable and visible
- Charging station is on the corner of a street
- Not in busy shopping streets
- There is a net-cable within 25 metres
- The side walk is at least 1,50 meter wide
- Not in front of the house of the applicant
- Charging station is on a main road
- Not around big trees
- Angled parking in stead of parallel parking
- Not along a cycle road

https://www.google.nl/maps/@51.9161588,4.4857365,3a,75y,341.07h,88.3t/data=!3m6!1e1!3m4!1srAd7dTTUqMme58wF9fyqYQ!2e0!7i13312!8i6656!

Kaart - Stadsplattegrond van R... | 85 Glashaven - Google Maps

Bestand Bewerken Beeld Favorieten Extra Help

_Verkeer en vervoer - One... Google IDO-LAAD OneDrive Pagina Beveiliging Extra

Download Google Chrome
Probeer een snelle, veilige browser met automatische updates
NEE JA

100%

21:51
7-6-2017

Whats next

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Policy Approach using big data analyses

Use of the data over the past 3 years:

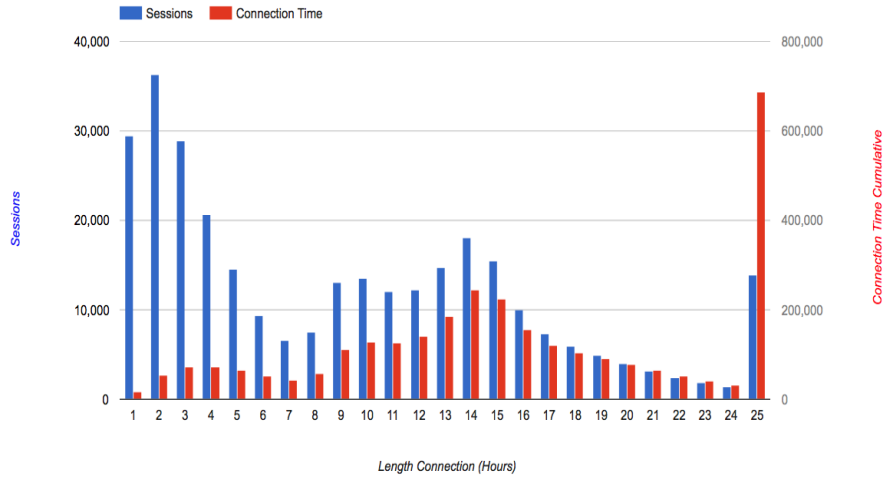
•When will there be charged?

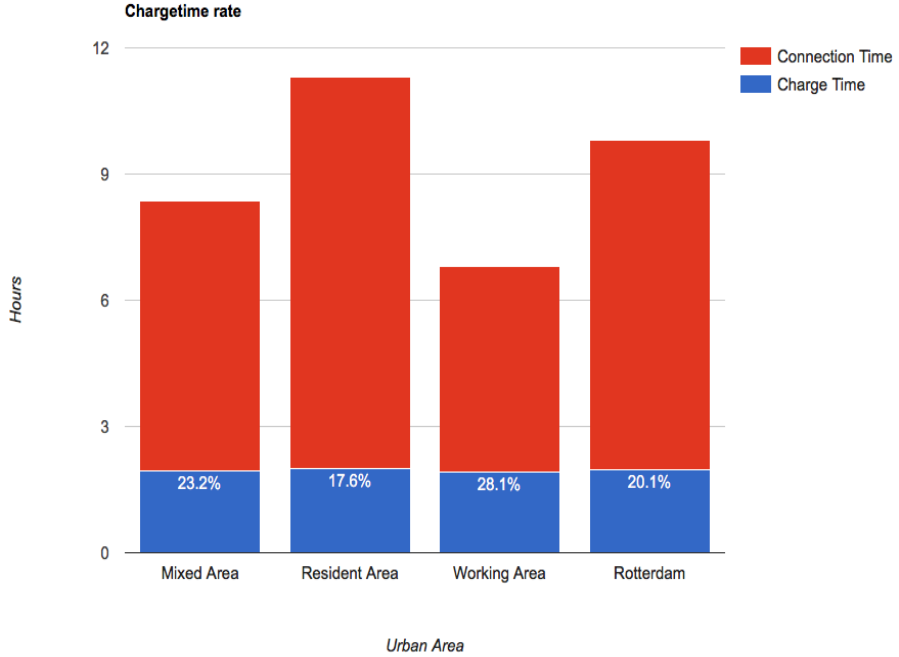
• How long is the connection time?

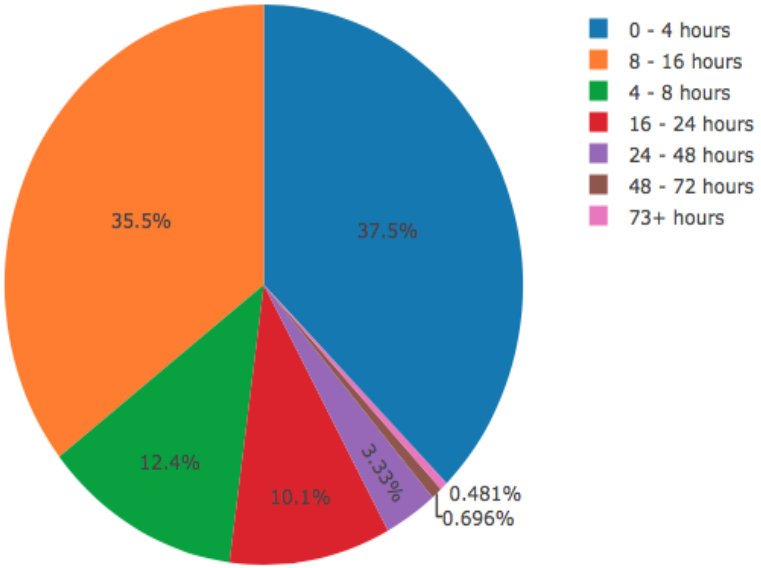
• Charging at what speed is necessary?

• Number of EV’s per charging pole?

• etc


Sessions
Connection Time
40,000
30,000
20,000
10,000
0
800,000
600,000
400,000
200,000
0
Sessions
Connection Time Cumulative
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
Length Connection (Hours)


Chargetime rate
12
9
6
3
0
Hours
Connection Time
Charge Time
23.2%
17.6%
28.1%
20.1%
Mixed Area
Resident Area
Working Area
Rotterdam
Urban Area


35.5%
37.5%
12.4%
10.1%
3.33%
0.481%
0.696%
0 - 4 hours
8 - 16 hours
4 - 8 hours
16 - 24 hours
24 - 48 hours
48 - 72 hours
73+ hours

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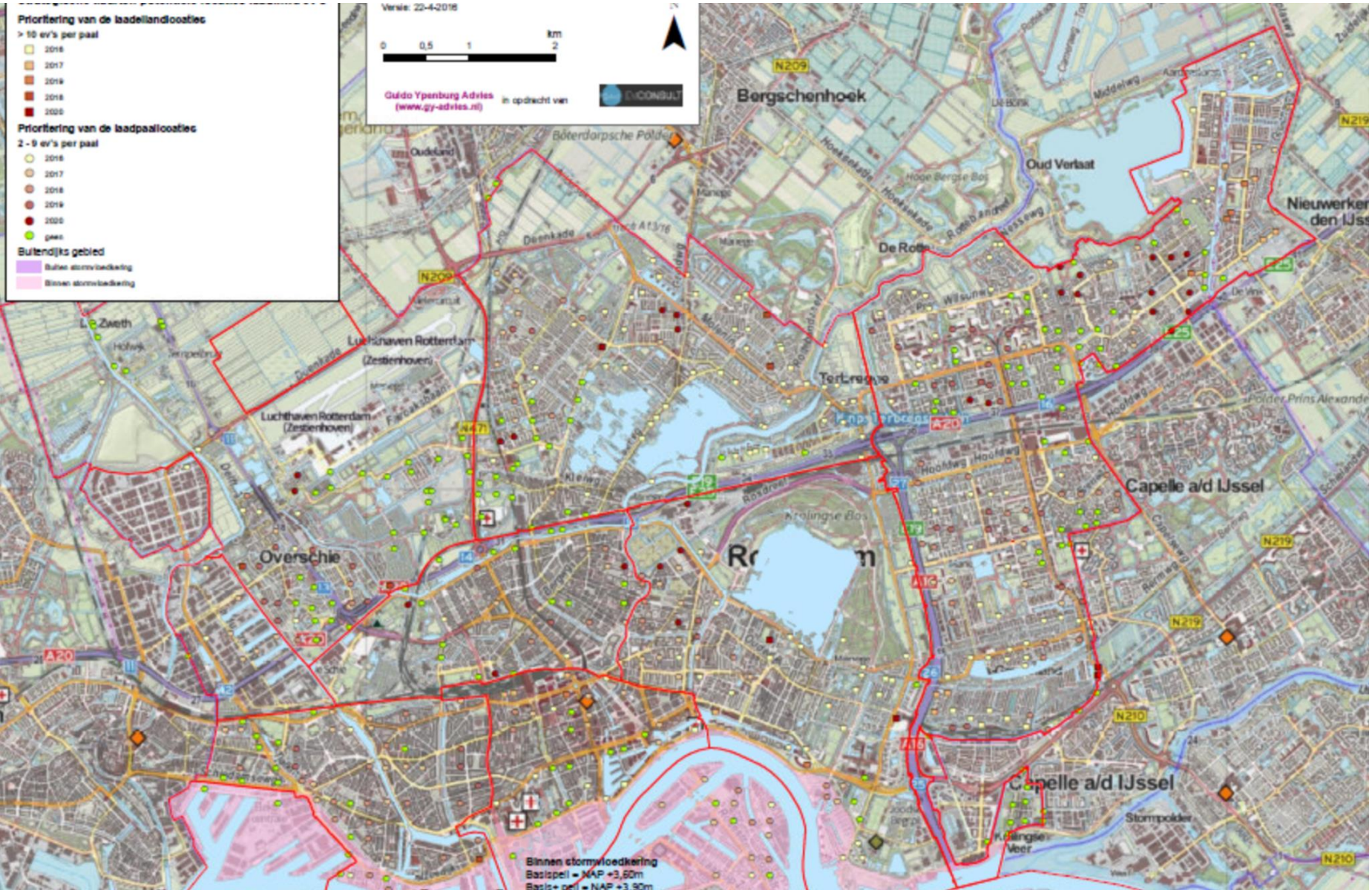

Questions??

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E- busses

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	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Huidig (Euro V)		250	50		5 à 10 reserve												
Extra ivm laden			+ 5		+10			+ 15					+ 15				
Minder ivm wijzigingen inzetmodel			-0		-0			-0					-0				
Totaal			255		260			265					265				
Zero 1			55														
Zero 2					50												
Zero 3								50									
Zero 4													110				
Euro VI (lease)			40														
Hybride			110										5 à 10 reserve				
Totaal (incl TR)		250	255	255	260	260	260	265	265	265	265	265	265	265	265	265	265

Transitie naar zero emissie bussen

- Ruimtelijke consequenties

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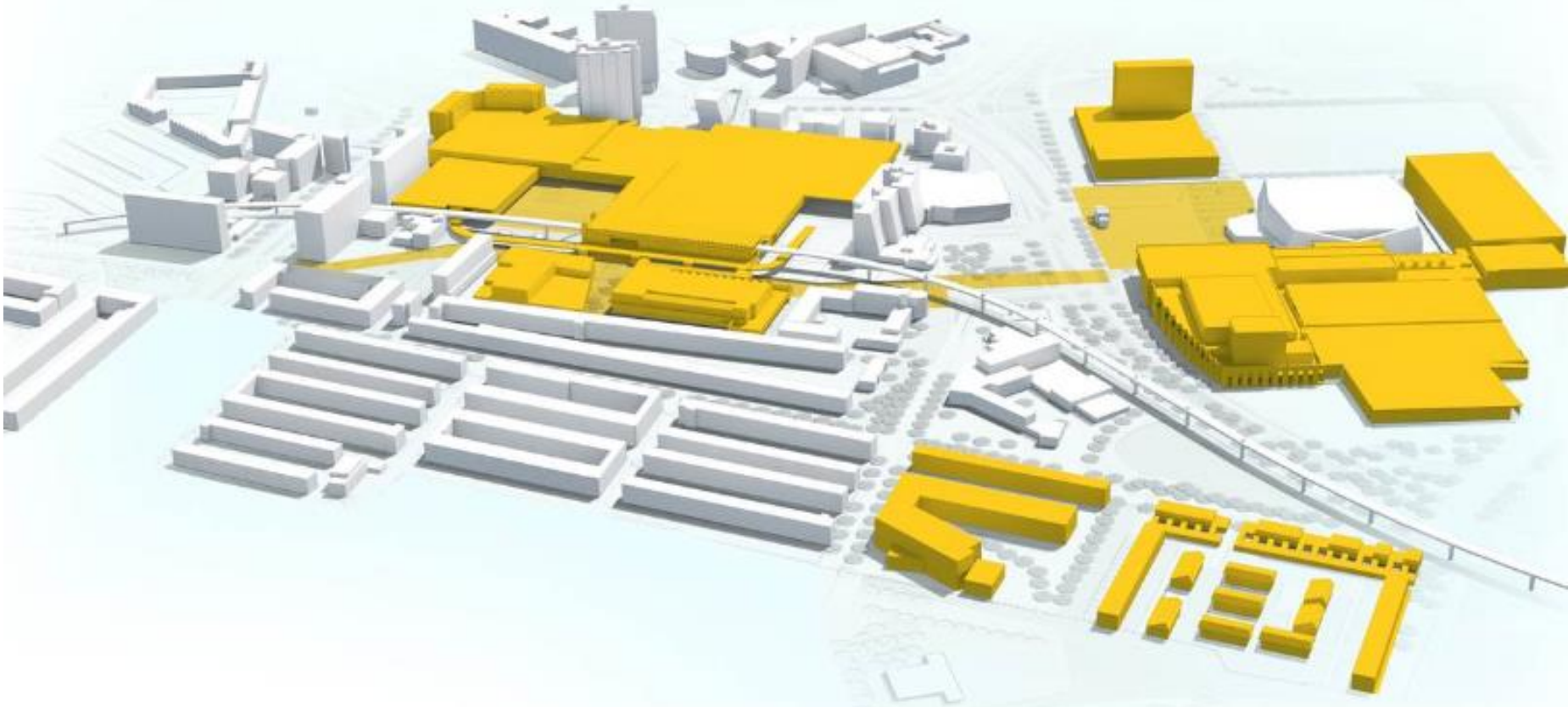

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Questions??