City of Rotterdam

Lutske Lindeman
City of Rotterdam

Towards a businesscase for public charging infrastructure

25 05 2016

Rotterdam electric

Gemeente Rotterdam

614.000 inhabitants,
nr. 1 port of Europe

Rotterdam elektrisch

Gemeente Rotterdam

Strategy sustainable mobility

Clean use

Clean vehicles

Clean fuels

Rotterdam elektrisch

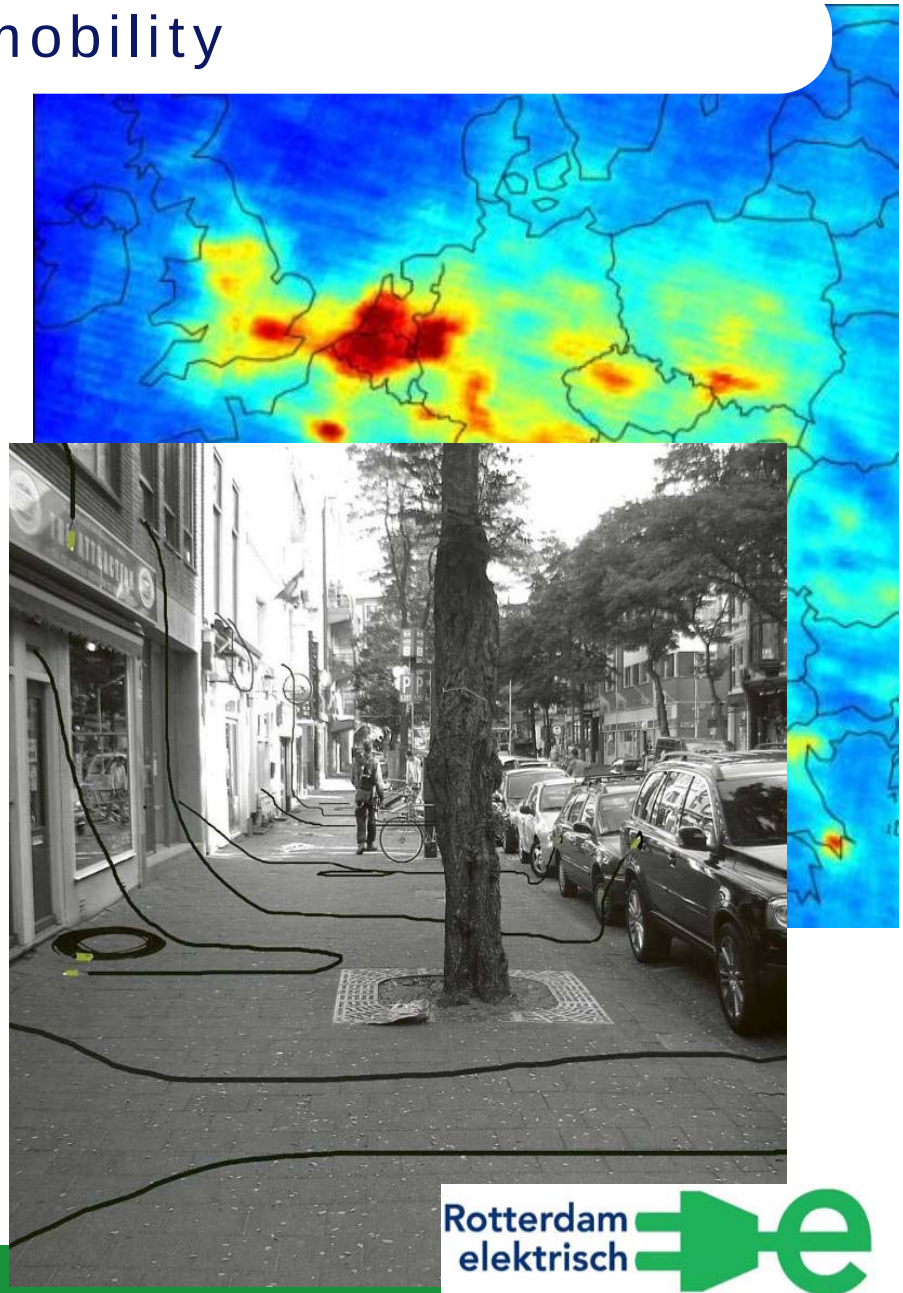
Electric mobility

Purpose (why)

- Air quality and health
- Economic growth
- Meeting demand inhabitants and responsibility public space

Measures (what)

- **Charging infrastructure**
- 0 emission distibution
- Municipal Fleet



Rotterdam elektrisch

Charging Policy

1. Setting the frame

(policy) *who, where, when*

→ ***Charging Ladder***

→ ***Demand driven***

2. Initiating

Attracting companies

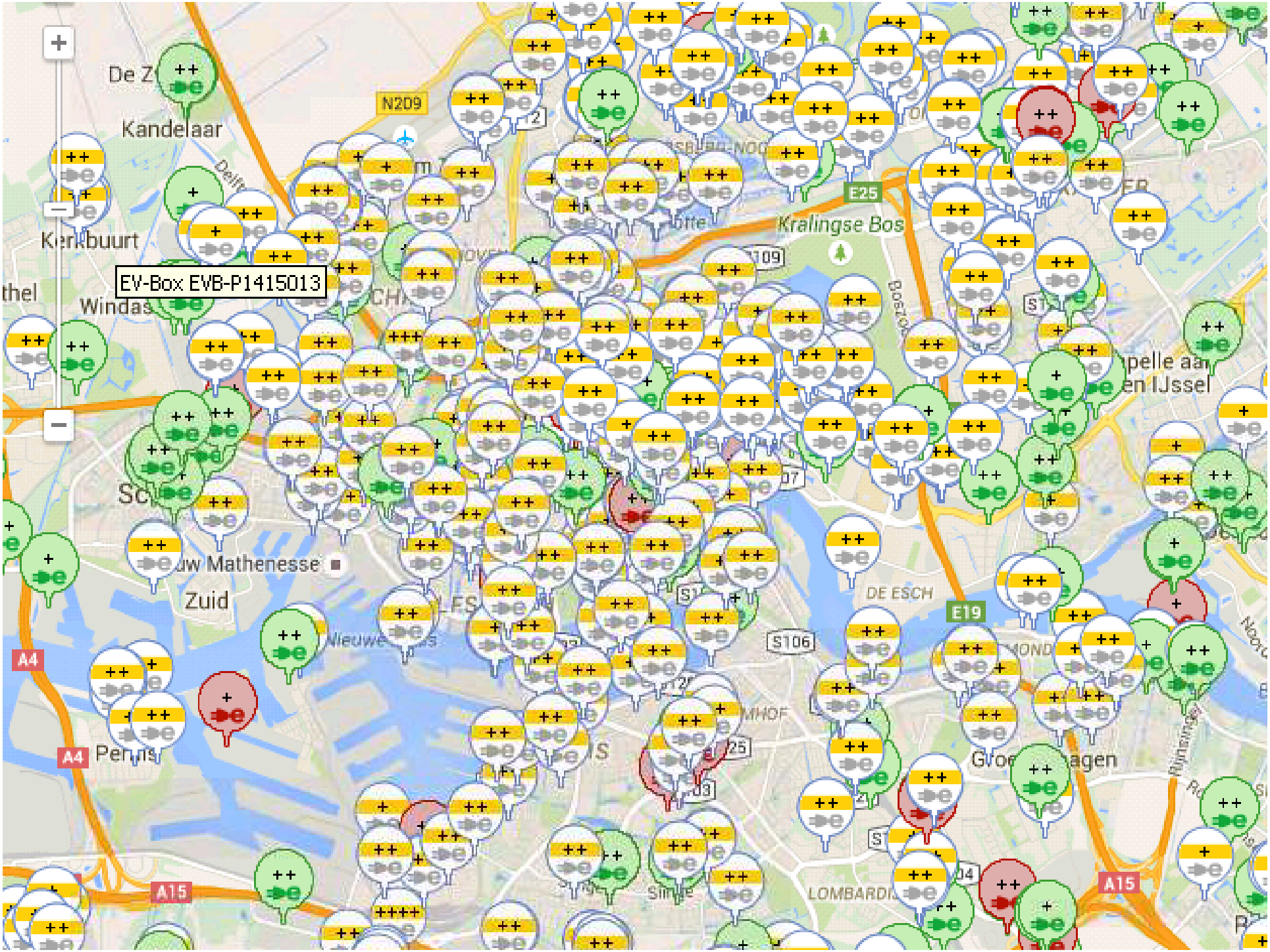
→ ***Growth of the network***

3. Withdrawal

Only public tasks

→ ***Solid businesscase***

Rotterdam elektrisch

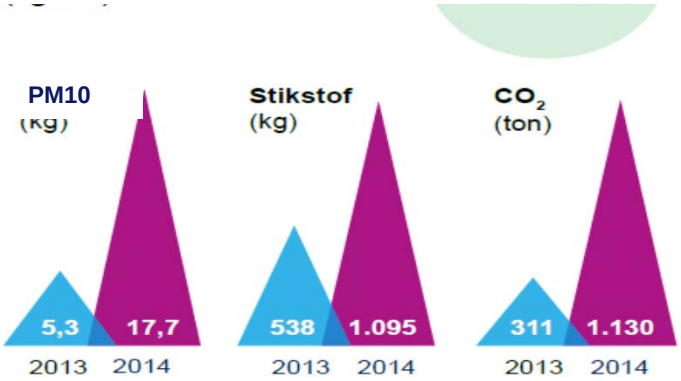

EV-Box EVB-P1415013
Kandelaar
N209
E25
Kralingse Bos
Zuid
A4
A15
E19
S106
DE ESCH

Usage in Rotterdam

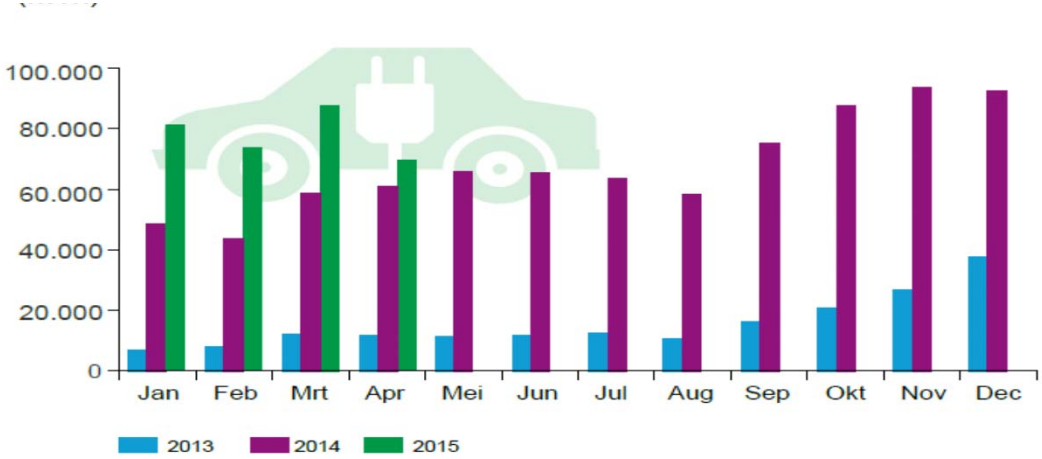
2013: 2.110.000 electric km’s

2014: 7.090.000 electric km’s

Avoided Emissions



Charged @ public charging stations



Forecast 2018

4500 e-cars extra →

3000 cars charging on street

1000 charging poles

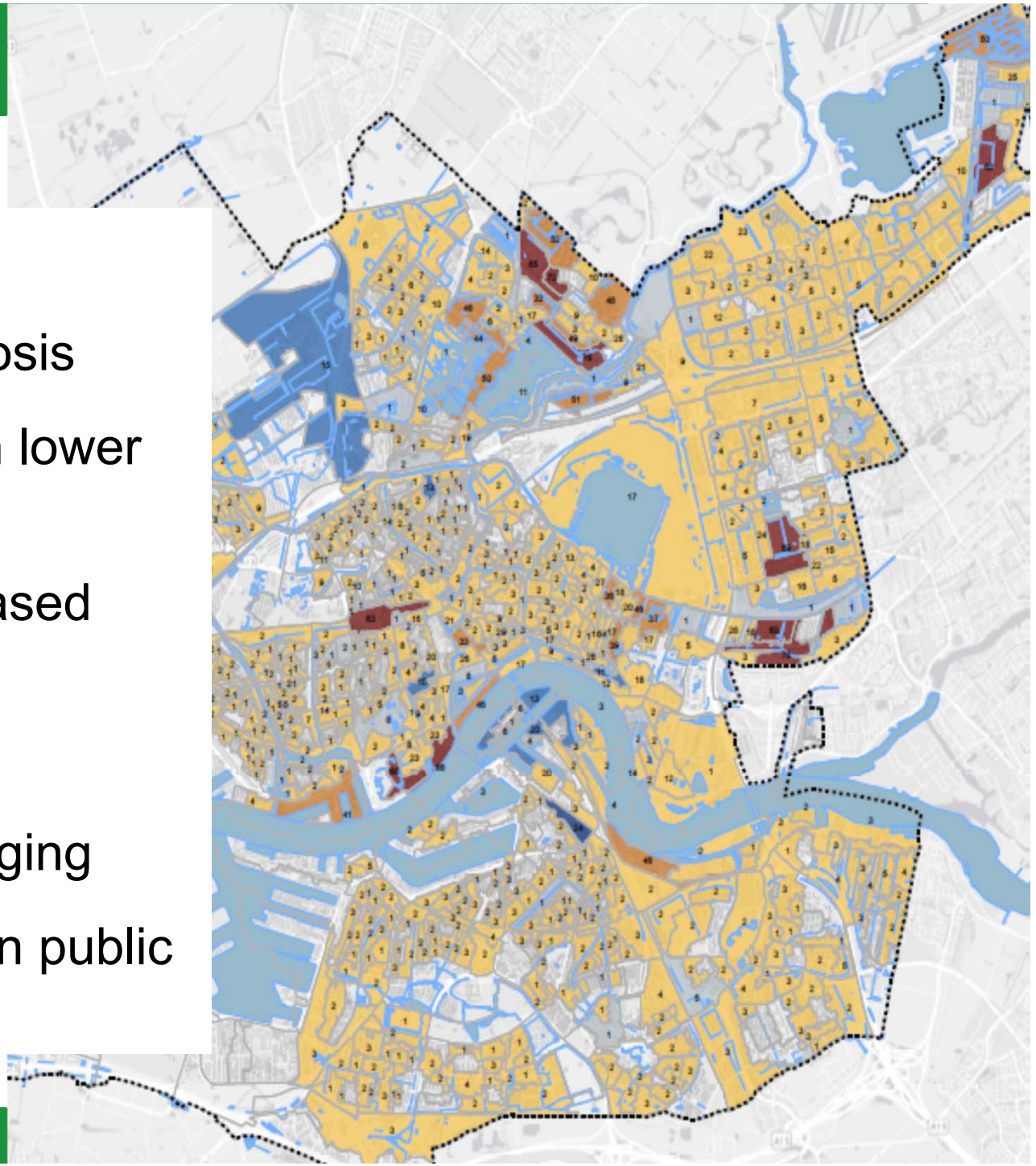
New Approach

Use of the data of the past 3 years:

- Who buys an EV?
- Where is growth expected?
- 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

New:

- Geographic prognosis
- Charging hubs with lower charging speeds
- Pilot Partly Time-based Tariffs (daytimes)
- Pilot Fast charging
- Pilot inductive charging
- Pilot private poles in public spaces



Buttons to adjust the businescase

- 0-scenario (28 ct/kWh)
- 25ct starting fee
- 50ct starting fee
- Stimulation Rate 30ct/kWh25ct/kWh
- Scale consumer tax rates for electicity taxes
- Charginghubs in stead of single CP
- ----------
- AND Combinations of buttons

- But also exploitation time (longer = cheaper)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Lutske Lindeman
City of Rotterdam
L.Lindeman@rotterdam.nl
0031 6 20879710