



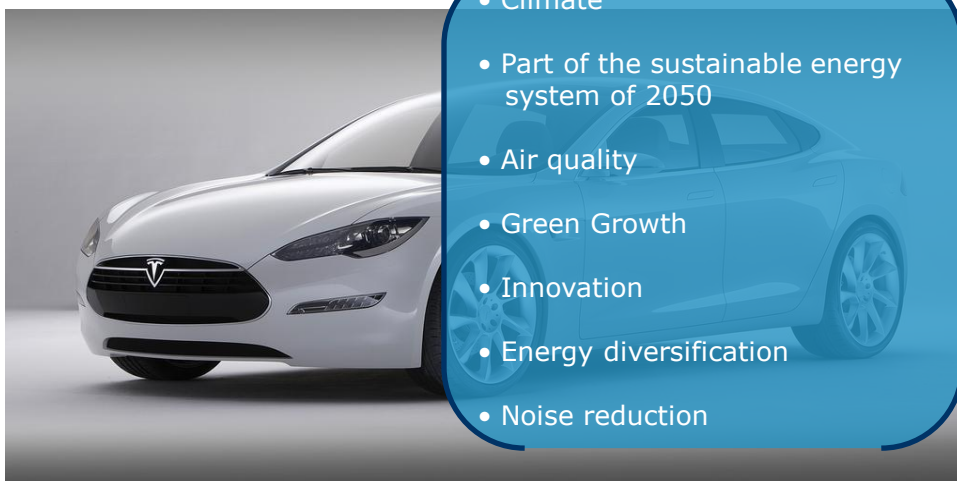
Rijkswaterstaat
*Ministry of Infrastructure and the
Environment*

EV

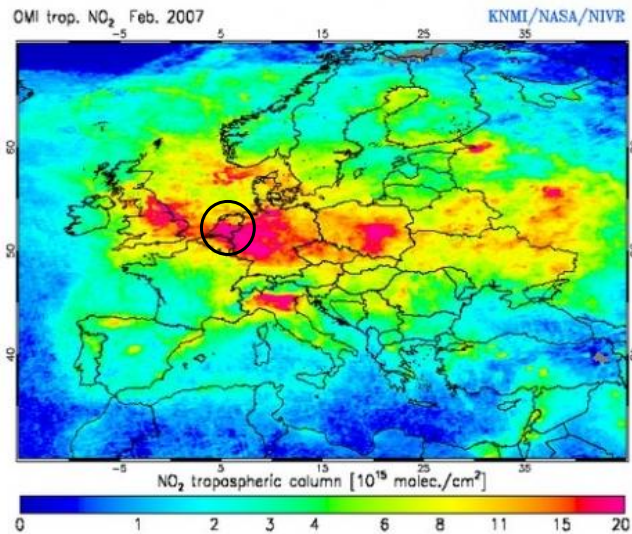
Frank ten Wolde
Projectleader Electromobility



Why Electric Mobility?



- Climate
- Part of the sustainable energy system of 2050
- Air quality
- Green Growth
- Innovation
- Energy diversification
- Noise reduction



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Milestones for EV



- Nationwide network charging points (slow and fast)
- Interoperability, easy charging and paying
- Sufficient possibilities vehicle maintenance and assistance
- A growing sector of new EV related products en services

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Results of one year monitoring of 26 EV's



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One year of monitoring 26 EV's

- 24 full Electric cars
 - 12 Nissan Leaf
 - 6 Peugeot Ion
 - 6 Mitsubishi Emiev
- 2 Plug-in hybrids
 - Toyota plug in Prius
- 35 different drivers
- Drive more than 233 thousand kilometers electrically

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Results

- Range is less than theoretically presented by car manufacturers
 - Nissan Leaf 102 km, 64% of the theoretical range
 - Emiev / Ion 86 km, 57% of the theoretical range
 - Plug in 14 km, 80% of the theoretical range



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Actual range



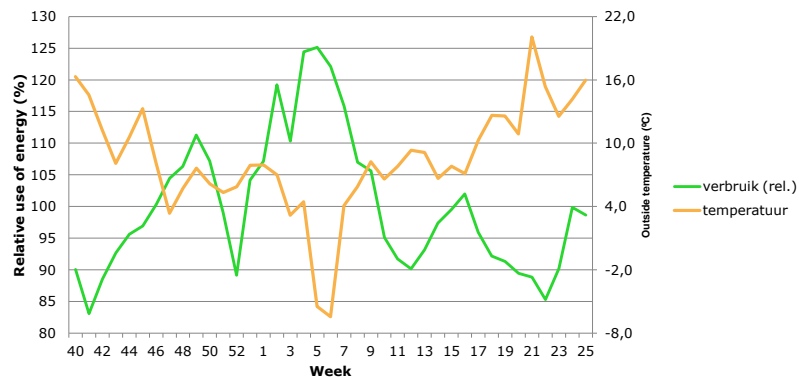
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Weather influences

Use of energy versus outside temperature



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Local emissions avoided

- 333 gram particle matter
- 5,6 kilo nitrogen oxides
- 15,1 ton CO₂

- Equals 33 barrels of oil



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Use: Interviewed drivers

- More quiet: Zen-factor
- Ambassador electric driving
 - an electric car contributes to a sustainable environment

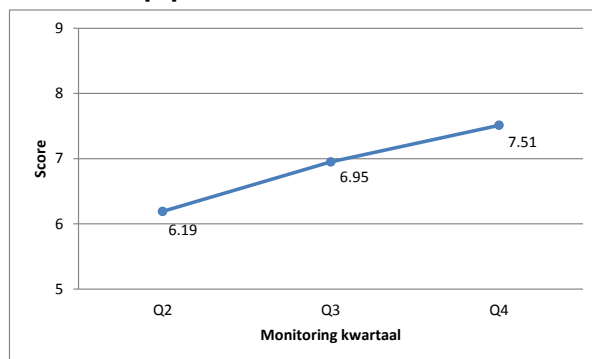
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Use: Interviewed drivers

- General appreciation electric driving



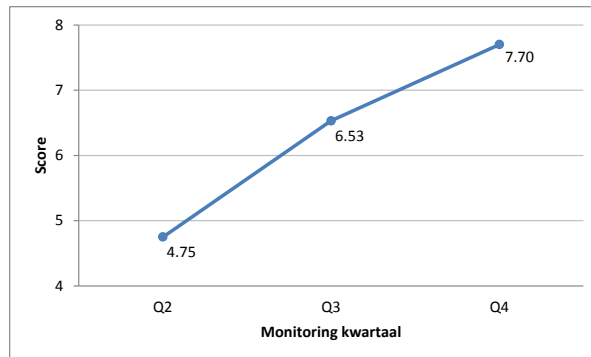
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Use: Interviewed drivers

- Would you recommend electric driving to a colleague?

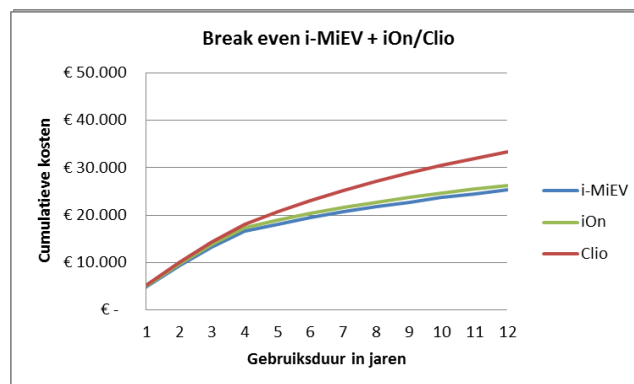


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Cost (consumer)

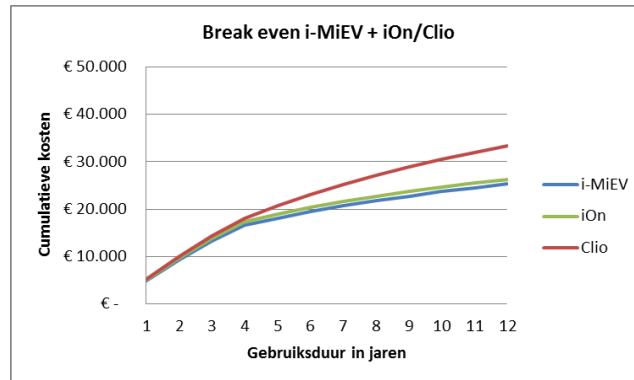


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Costs (Company Owner)



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Recommendations

- EV suppliers
 - Be reliable (EV's doesn't drive > 250 km)
 - Don't sell a car but a lifestyle
 - Inform your customer
 - Sell a car and charge options
- Legislators
 - See the big picture/benefit for the holle country (not only local CO2 and NOX reduction)
 - Help the market to solve problems
- Fleetowner
 - Just do it!

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Are EV's possible in the Rijkswaterstaat fleet

- Yes, it's possible!
- Our Minister would like to have 400 EV's in the Rijkswaterstaat fleet in 2015.

Thank you for your interest