

ECOMM 2012

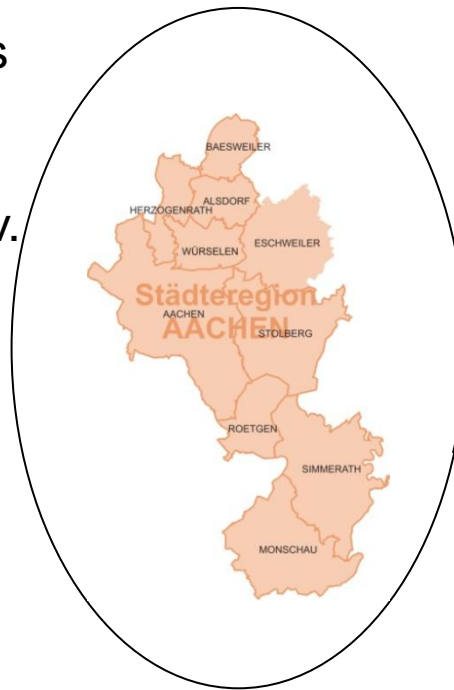
Identification of user groups and potentials of electric mobility based on a household survey in the region of Aachen

Dipl.-Ing. Conny Louen

Aachen, 13 June 2012

Survey design

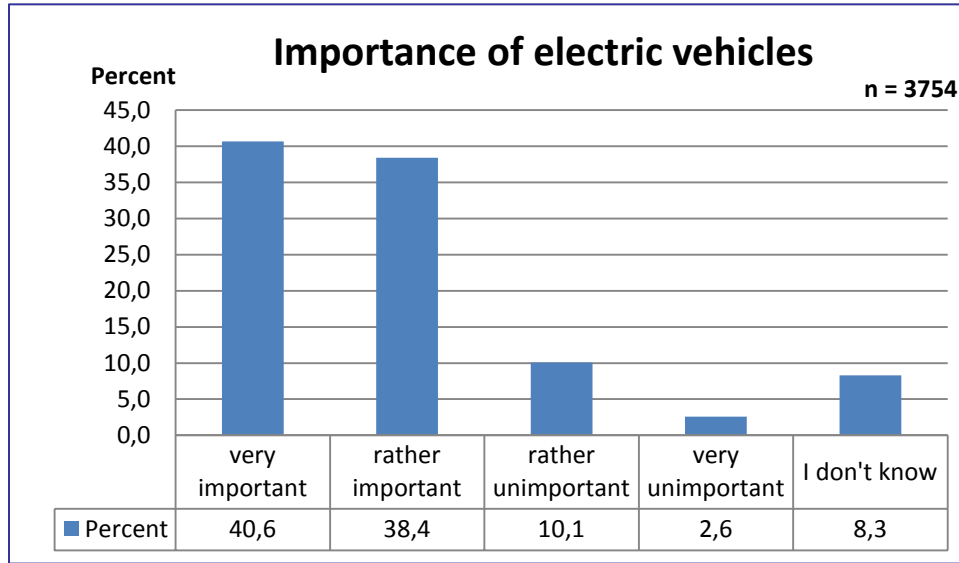
- StädteRegion Aachen 553.108 residents
- Household survey on mobility behaviour
- supplemented with questions on attitudes to electric mobility
- Mai – Juli 2011
- 3449 Households
- 6167 Individuals
- 5171 mobile Individ.



Outline

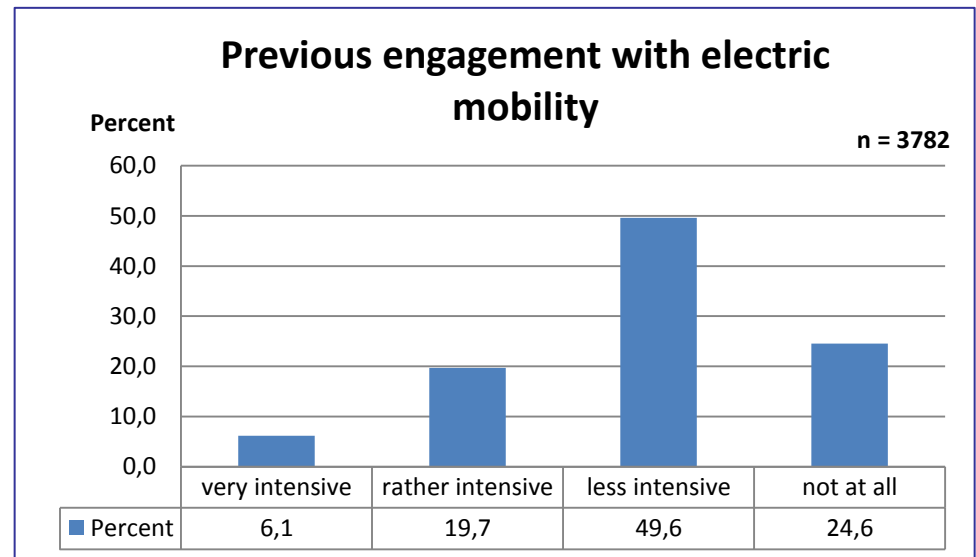
- 1. Introduction**
- 2. Attitude of respondents to electric mobility**
- 3. Potential – Electric cars**
- 4. Potential – Electric bikes**
- 5. Conclusion**

Attitude of respondents



79% of respondents believe that electric mobility is important

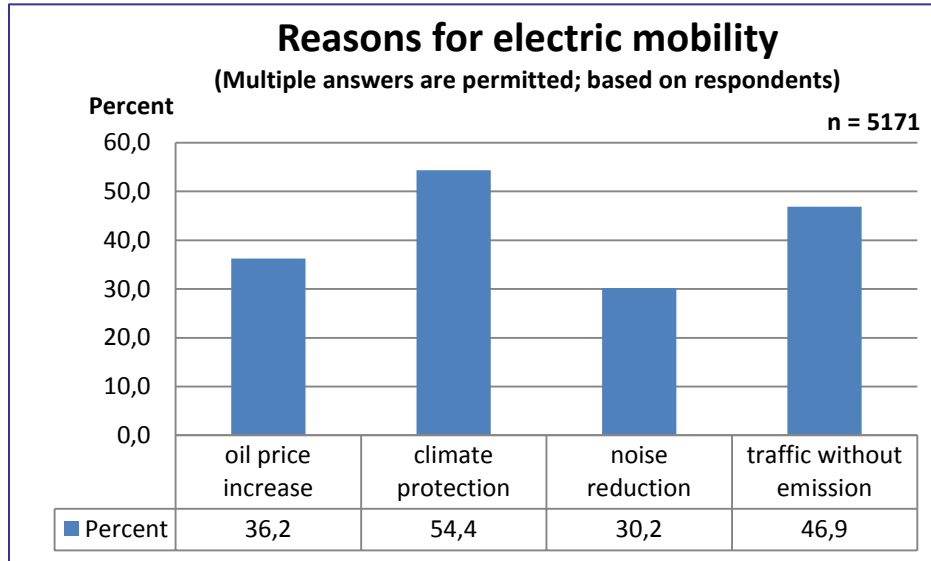
But only 25,8 % have dealt intensively with the topic



Attitude of respondents

Potentials of electric mobility

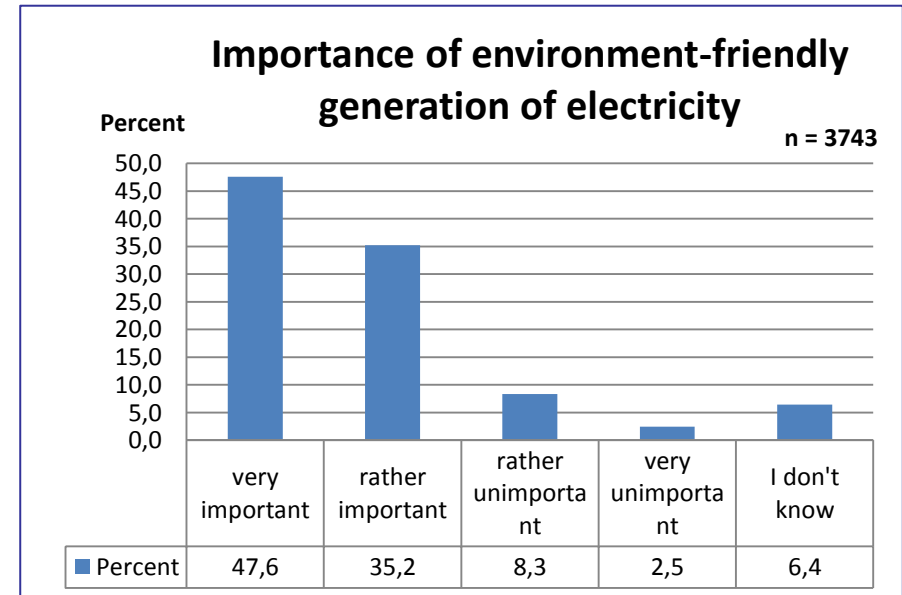
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Main reasons of E-Mobility:

- Climate protection
- Traffic without emissions

This is reflected in the fact that 82,8% think that environment-friendly generation of electricity is important



Introduction

Attitude

Potential E-Cars

Potential E-Bikes

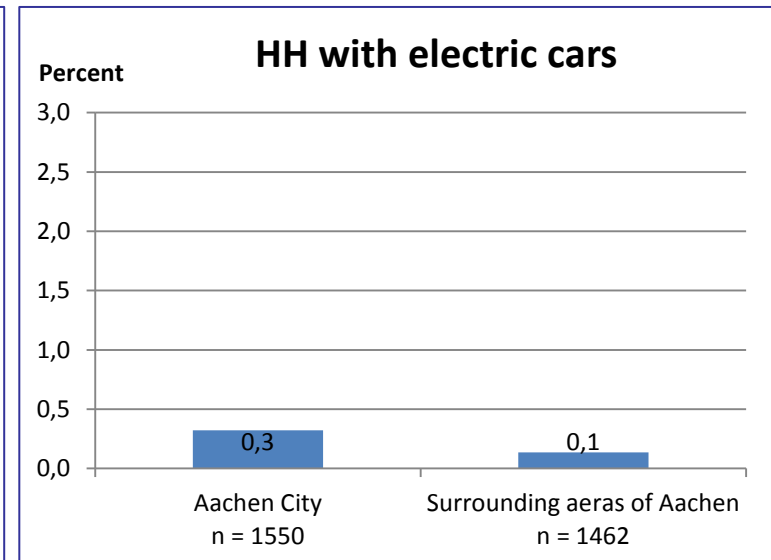
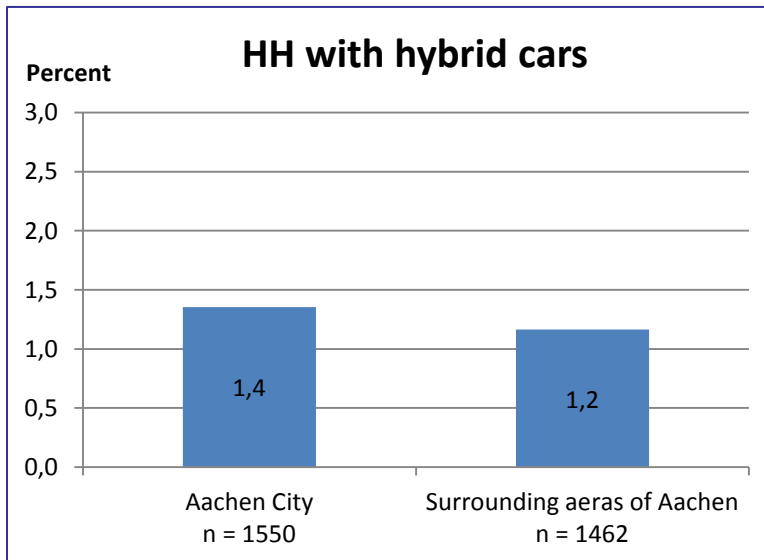
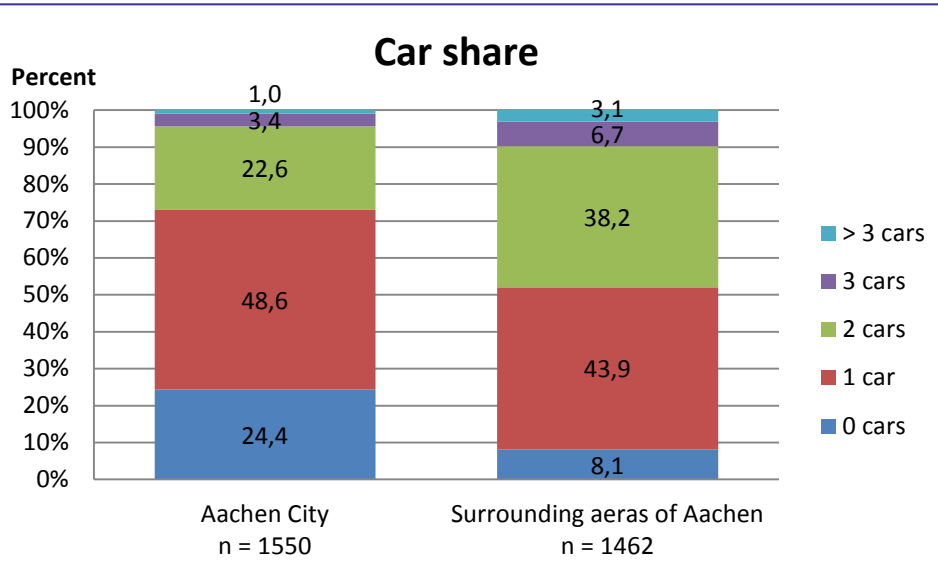
Conclusion

Attitude of respondents

	Frequency of use at least 1-3 times a week	Use for travel to work or school	Interest on E-Bike or E-Car
Bike	33,8 %	11,3 %	64,4 %
Passenger car	83,1 %	49,3 %	43,2 % (for cars up to 6.000 €) 18,4 % (for cars up to 30 – 40.000 €) 47,8 % (for plug-in hybrids)

- The interest in E-Bikes is high
- Of the E-Cars are the preferred: plug-in hybrids and the cheaper small cars

Number of cars per household in the region



Potentials of electric mobility

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Introduction

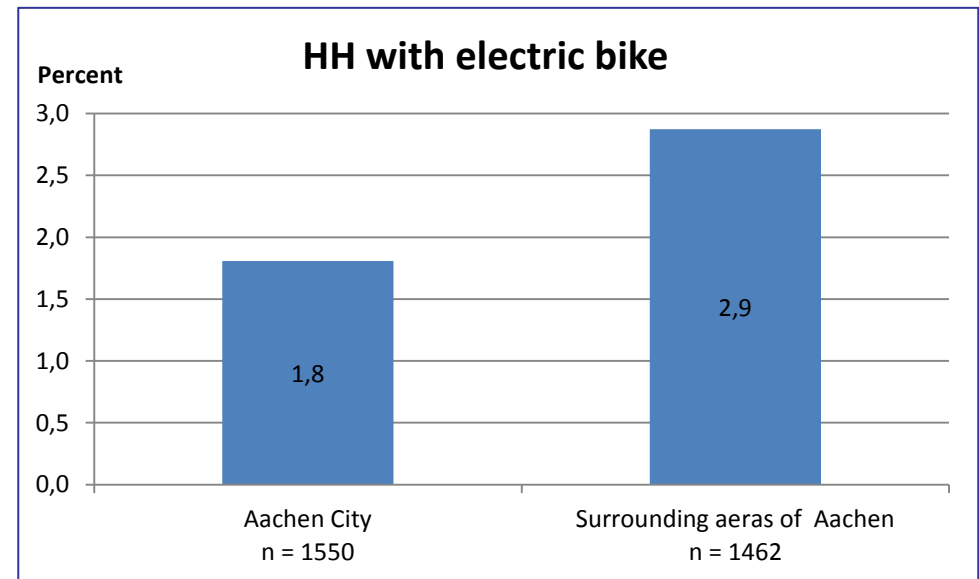
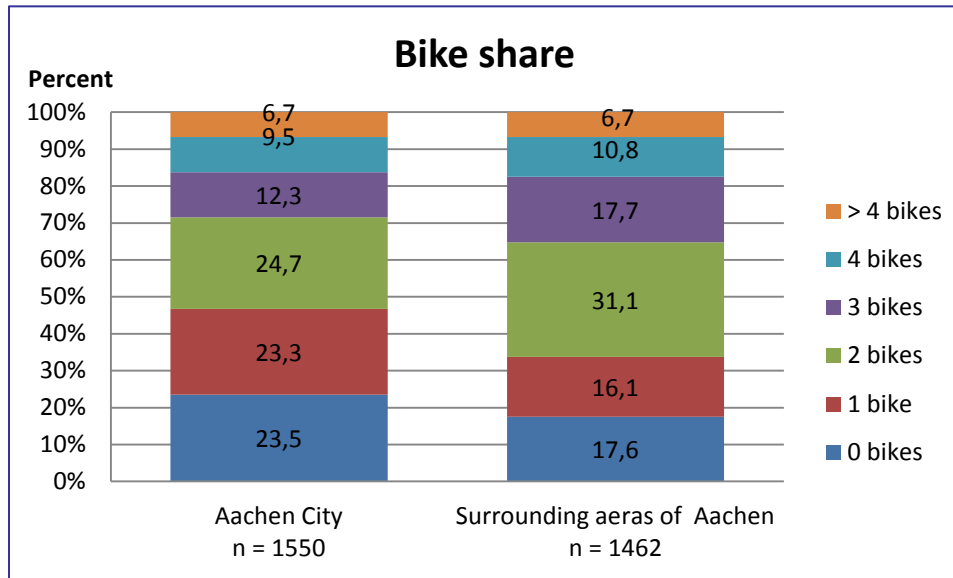
Attitude

Potential E-Cars

Potential E-Bikes

Conclusion

Number of bikes in the region



Potentials of electric mobility

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Introduction

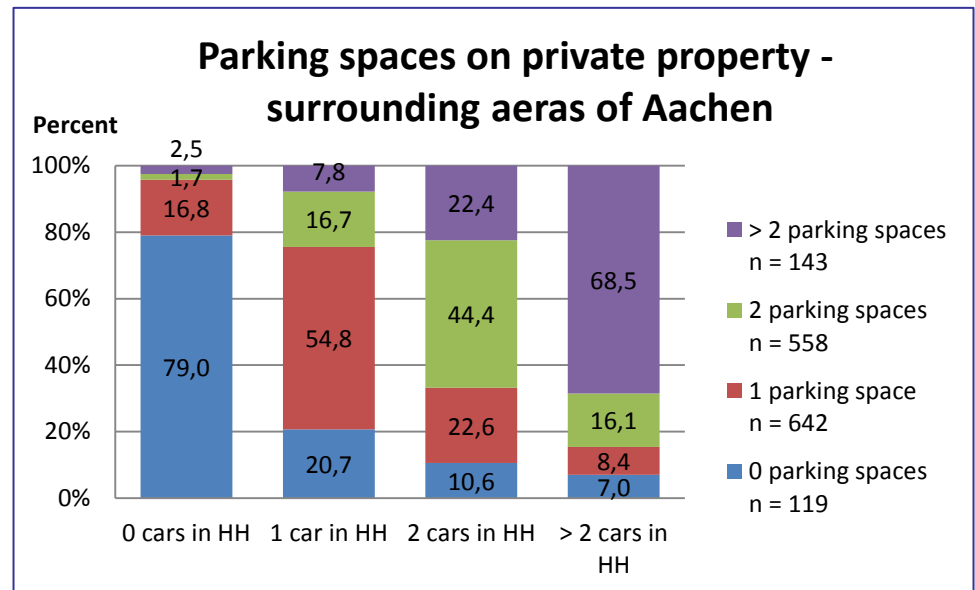
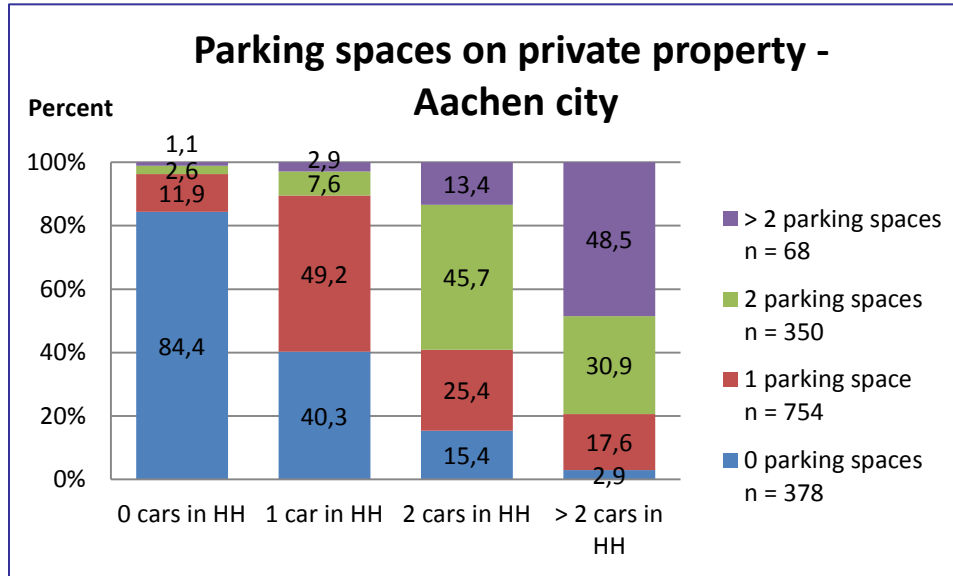
Attitude

Potential E-Cars

Potential E-Bikes

Conclusion

Parking spaces on private property



Trips with distance over 50 km

Potentials of electric mobility

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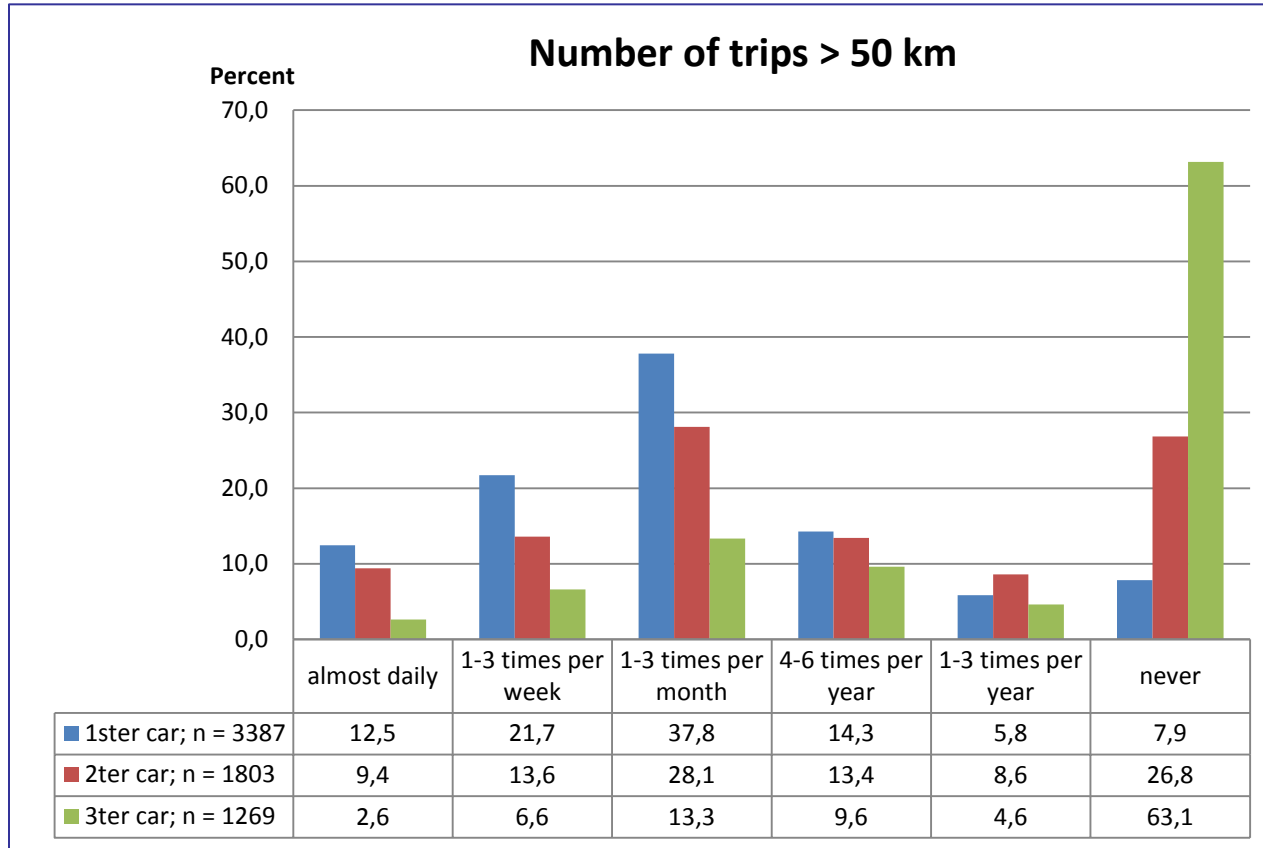
Introduction

Attitude

Potential E-Cars

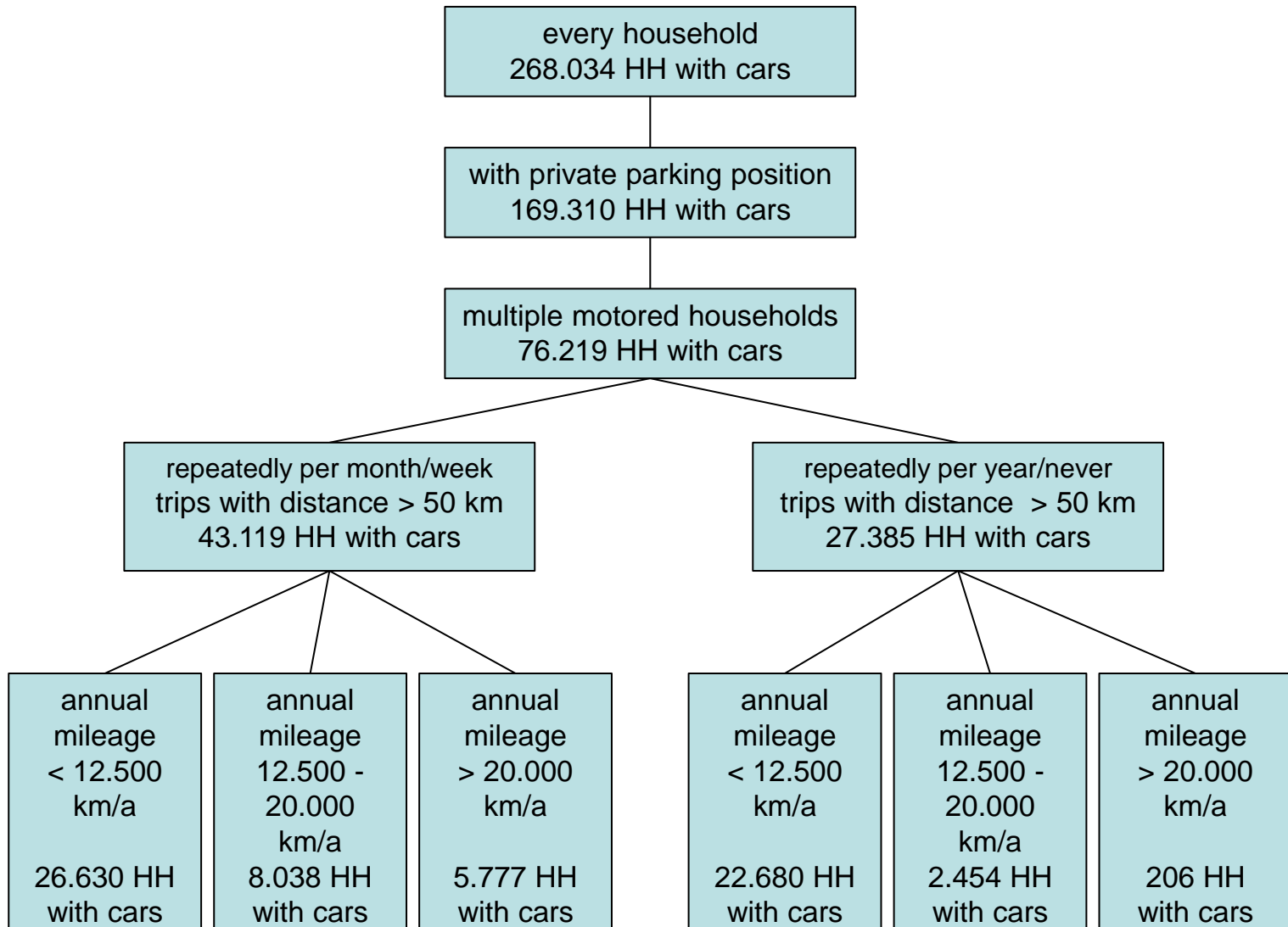
Potential E-Bikes

Conclusion



Second and third cars are used less often for longer distances

Potential – E-Cars (extrapolated to all residents)



Potentials of electric mobility

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Introduction

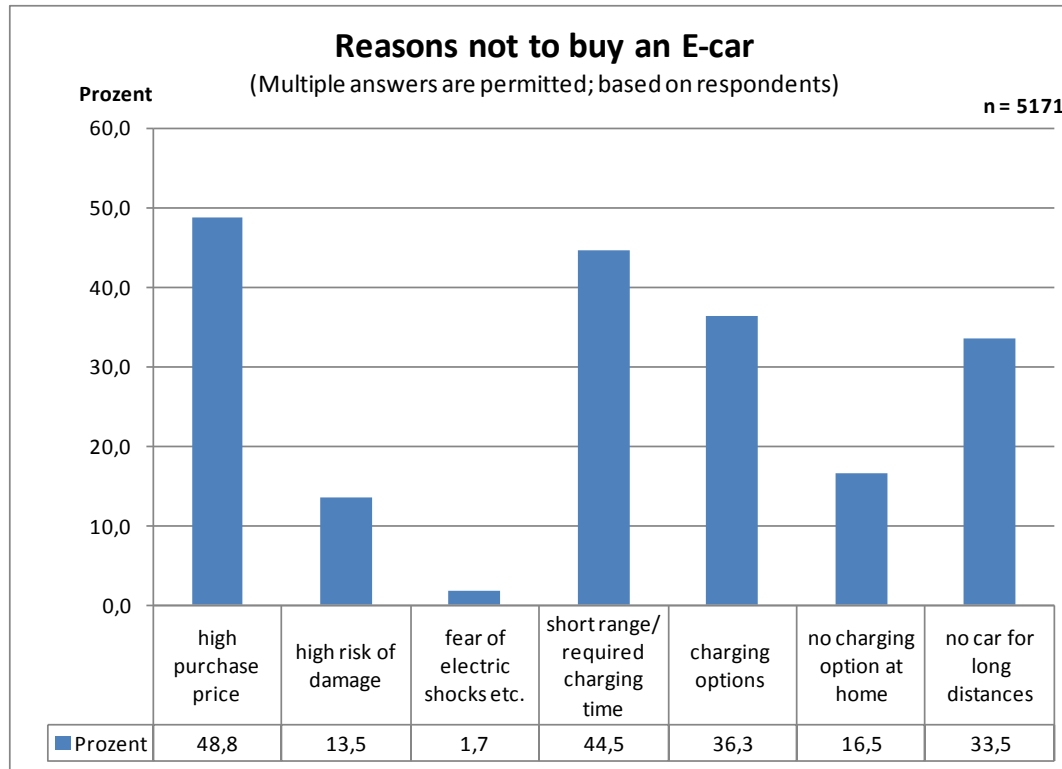
Attitude

Potential E-Cars

Potential E-Bikes

Conclusion

Potential – E-Cars



- The main reasons not to buy an E-Car :
 - The high price
 - to short range and the required charging time
 - The road charging options

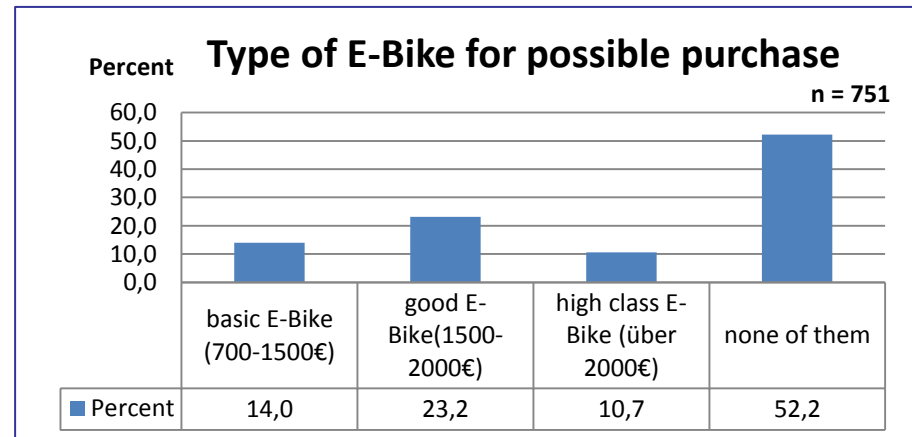
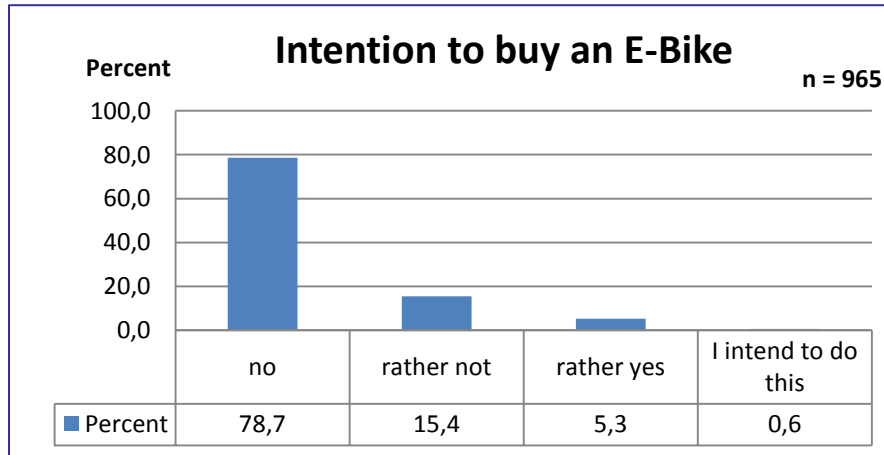
Potential – E-Bikes

The following analysis were filtered according to age (> 17 years), by the bike use (at least 1-3 times a week) and whether a bicycle parking space on private ground is available

- 1193 of 5171 participants (23,1 %)
- The majority are working people (52,2 %) and pensioners (18,1 %), and students (12,2 %)
- 47 E-Bikes (2,2 % of all bikes)

Potential – E-Bikes

- 712 participants use the bike every day (13,8 %)
- 18 persons of these (2,5 %) use regularly an electric bike; 104 persons (14,6 %) have tested it



Conclusion

- A common interest in electric mobility is present, it often lacks the motivation or the ability to deal with this topic more intensive
- The main reason for the interest is the environmental protection
- Define and address specific possible user groups
- A major argument against electric cars: range and charging time > monitor more accurately the own driving behavior > for most of the rides is the range of E-Cars sufficient
- Electric cars lend itself often to be a second car > more rare trips with conventional first car
- Look at the use of E-Bikes besides the travel to work