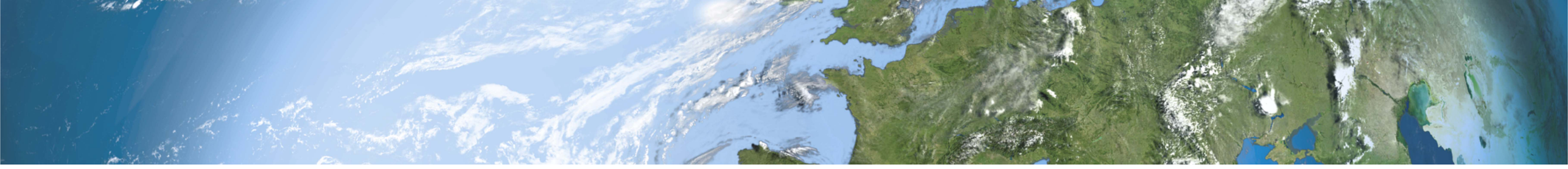


Needs, requirements and attitudes of commercial sectors with respect to the use of electric vehicles

J. Klauenberg[1], J. Gruber[1], I. Frenzel[1], J. Zajicek[2], S. Kaplan[3]

[1] German Aerospace Center (DLR), [2] Austrian Institute of Technology (AIT),
[3] Technical University of Denmark (DTU)

Project background

- SELECT (Suitable Electromobility for Commercial Transport)
- ERA-NET Plus Electromobility+
- 3 research institutes:
  AIT Mobility (AT),
  DTU Transport (DK),
  DLR Transport Research (DE)
- 3 industrial partners: Clever (DK),
  Reffcon (AT),
  Consilio (AT)
- Project duration 07/2012–06/2015

Aim of the project

- Identifying users of electric mobility in commercial transport
- Understanding the technical and practical user requirements
- Developing a set of methods for the fleet management of electric and mixed fleets

Empirical survey

- Aim: Identify the attitudes and preferences of decision makers concerning vehicle selection and procurement in commercial transport
- Survey structure: company size, vehicle fleet, driving patterns, attitudes and preferences towards electric mobility, socio-demographics
- Involved countries: Austria, Denmark and Germany
- Type of survey: Computer-assisted web interviewing (CAWI)
- Survey conduction 08–10/2014
- Contacted enterprises: ~50,000

Survey results

- More than 1,200 responses

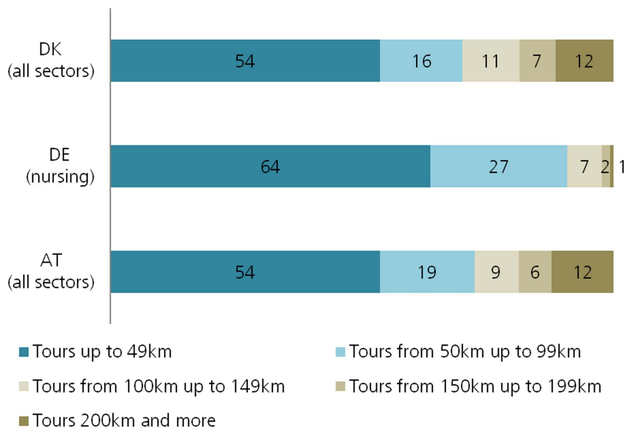
	Targeted Business Sectors	Contacted Enterprises	Resp. [n]	Resp. [%]
AT	All	21,300	206	1.0
DK	All	25,000	677	2.7
DE	Nursing	4,800	330	6.9

- High share of very small companies in Austria and Denmark slightly larger companies in Germany
- High share of companies without own vehicles in Denmark
- Higher average fleet size in Germany

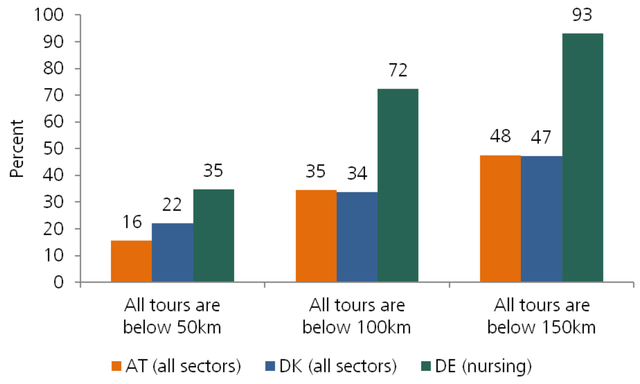
Own vehicles	AT	DK	DE
0	3	171	2
1-4	134	417	61
5-9	35	42	100
10-19	16	19	90
20-49	11	9	61
50-99	4	8	11
100 and more	3	11	2
Sum	**206**	**677**	**330**

- Respondents reported on 13,600 vehicles, share of EVs 1.3–2.2%
- On average one tour per day conducted per vehicle

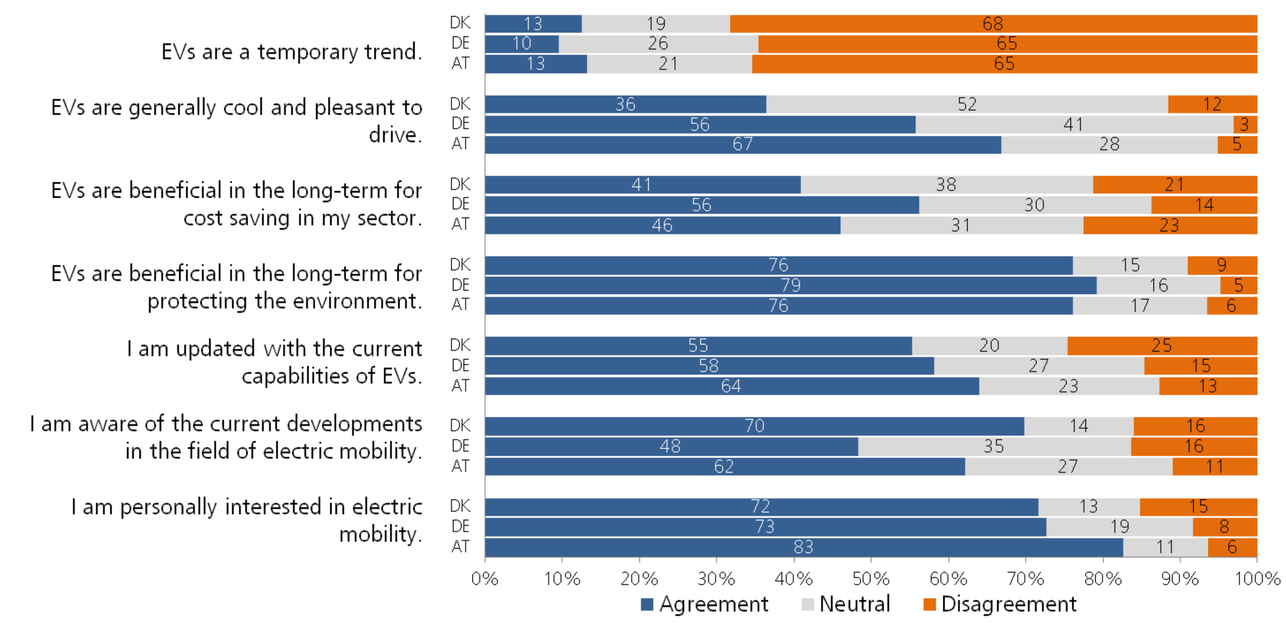
- More than half of all tours shorter than 50 km



- Analysis of maximum tour length per company allows estimation of EV use potential



- Overall positive picture of EVs
- EVs are not seen as temporary trend
- Participants expect economic and environmental benefits in using EVs
- Awareness of capabilities of EVs



SELECT
Suitable ELEctromobility for Commercial Transport

Electromobility+

DLR Deutsches Zentrum für Luft- und Raumfahrt

Discussion and Conclusion

- Analysis of maximum tour length confirms potential seen in studies and statistics
- High innovation potential among small companies, high interest in new technology
- Positive attitudes of decision makers for selection and procurement of vehicles
- Further project steps: Establishing comparability between analysed countries, GPS data survey, development of framework for fleet management system

Institute of Transport Research
Rutherfordstraße 2
12489 Berlin, Germany

Contact: Dr. Jens Klauenberg
Telephone: +49 30 67055-192
Email: Jens.Klauenberg@DLR.de