SELECT

Suitable ELEctromobility for Commercial Transport

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Central objectives of the project SELECT

- To produce deeper knowledge on the **possibilities to electrify commercial** transport, including potential market shares.

- To understand the **needs, requirements and attitudes** of selected commercial sectors with respect to the use of electric vehicles to **fulfil their transportation needs**.
  contribution to key dimension objective „socio-economic issues“

- To translate these requirements into **specifications** for the development of supporting services and to develop a generic technical **framework and set of methods for fleet management** of electric and mixed fleets.

- To develop **recommendations** considering different areas and levels of action as well as respective actors.

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The project consortium (DE, DK, AT)

Research

- Institute of Transport Research, German Aerospace Center (DLR) Berlin
- Technical University of Denmark (DTU) Copenhagen
- AIT Mobility – Austrian Institute of Technology Vienna

Industry

- CLEVER A/S (formerly ChooseEV), Denmark (electric mobility operator, owned by two Danish energy companies, 300 vehicles)
- Consilio Information Management GmbH, Austria (consultancy for technical vehicle equipment for data collection)
- Reffcon GmbH, Austria (consultancy for sustainable mobility)

German Aerospace Center
Technical University of Denmark
AUSTRIAN INSTITUTE OF TECHNOLOGY
TOMORROW TODAY
CLEVER
CONSILIO
REFFCON Resource Efficiency Consultancy

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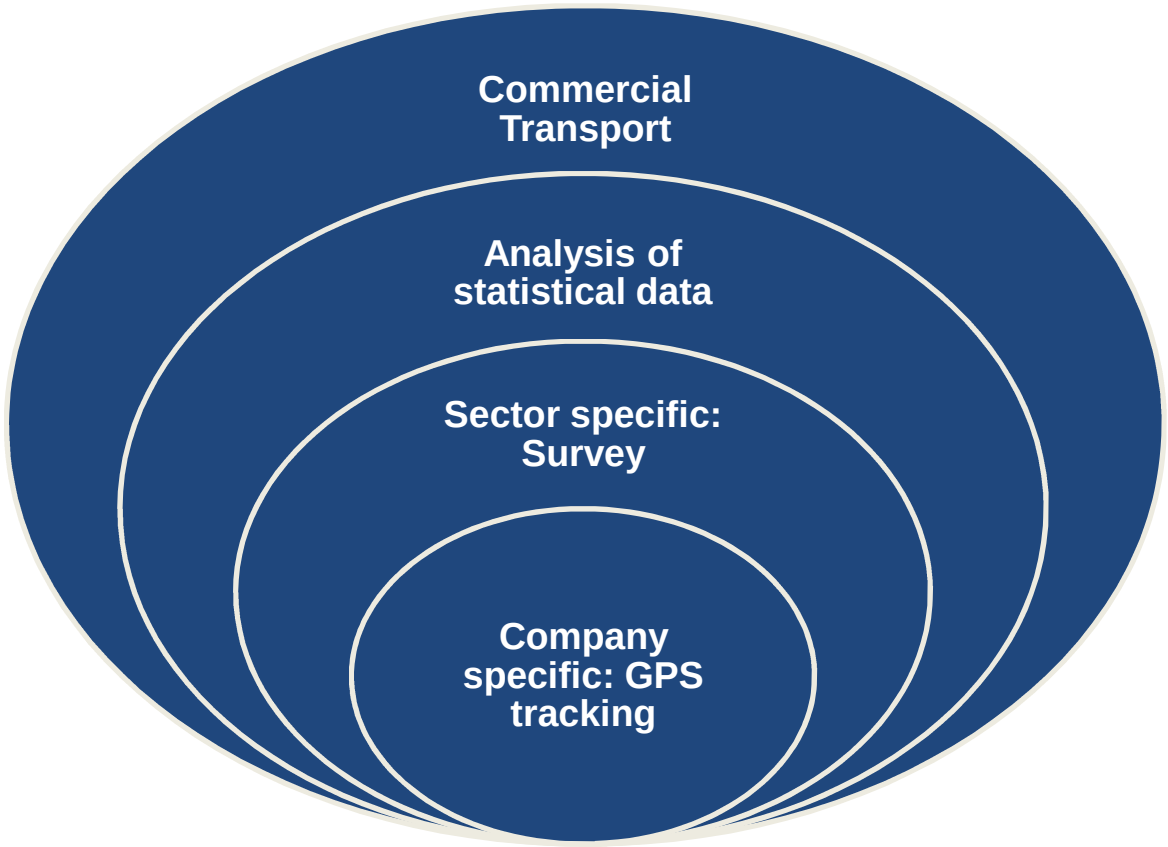
Stepwise identification of EV potentials



Levels of analysis

General level

Mid-level

Case study level

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WP 2: Mobility requirements of commercial transport

- Analysis of available data concerning the structure and strength of commercial transport, by economic sector (NACE)

- Data sources
  - Germany: German Federal Motor Transport Authority (KBA), Survey Motor Vehicle Traffic in Germany – Survey of Motor Vehicle Owners (KiD 2010)
  - Denmark: General enterprise statistics (FIRE), annual register of companies' access to vehicles (MOTV), annual odometer reading (SynsData)
  - Austria: 2 datasets from Austrian Statistics Institute and Austrian Chamber of Economics

- Vehicle classes: passenger cars, LDV < 3.5 tons payload / GVW < 3.5 tons, LDV with GVW < 12 tons

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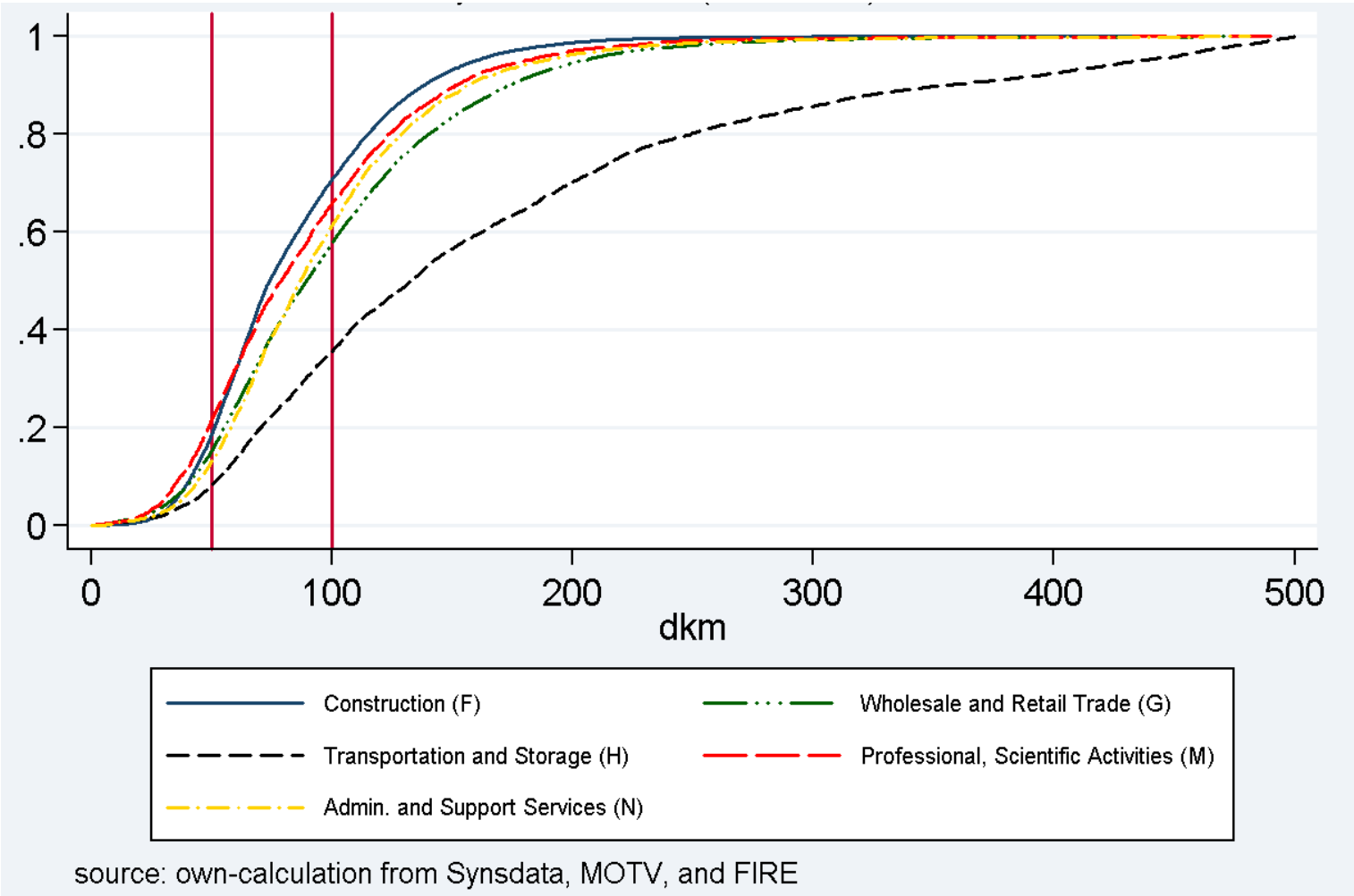
Cumulative distribution of daily mileage of vans (Denmark, 2010)



source: own-calculation from Synsdata, MOTV, and FIRE

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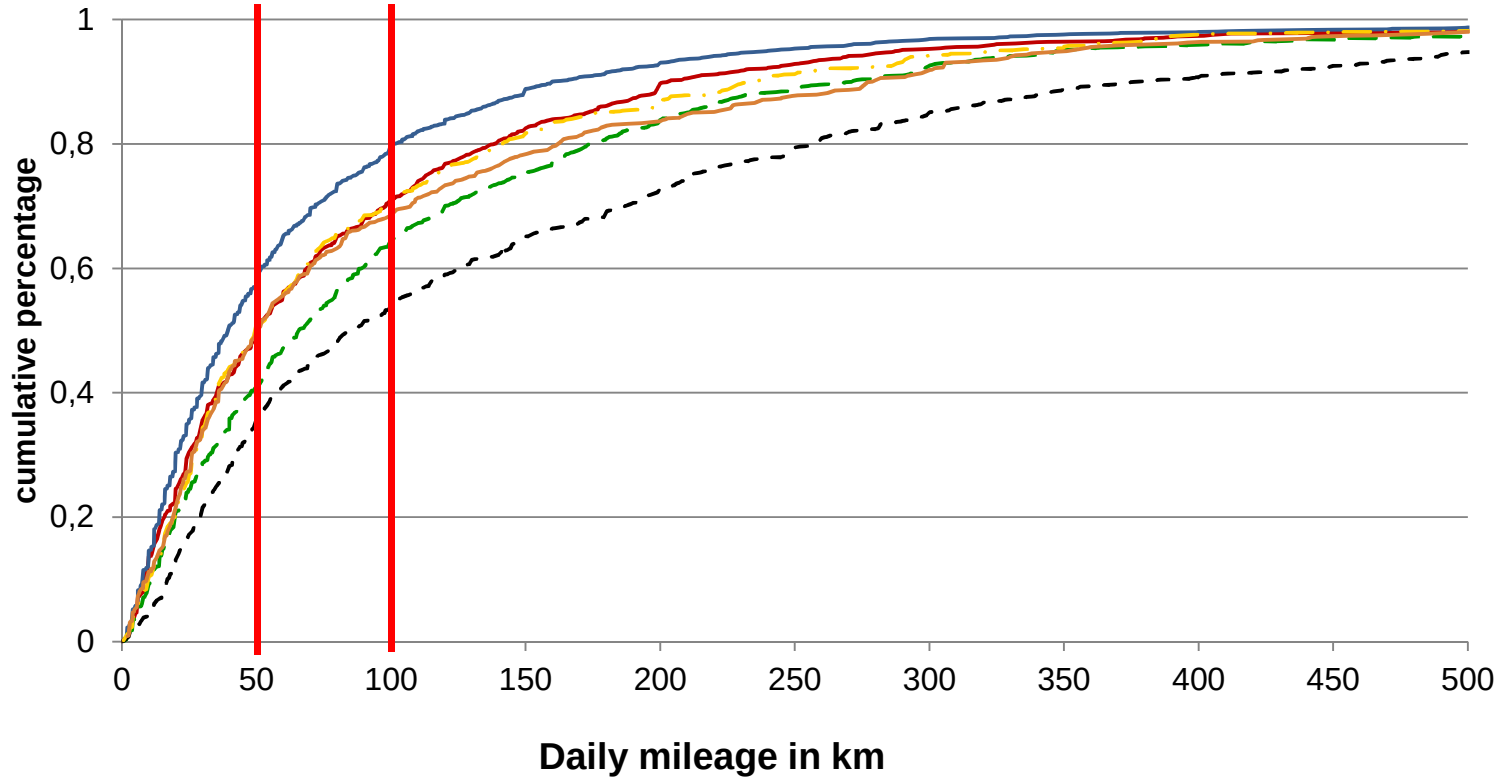
Cumulative distribution of daily mileage of lorries under 3.5 tons payload (Germany, 2010)



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WP 2: Identified sectors

- Denmark
  - Most important sector "Construction" (F)
    35% of all vans, 70% drive less than 100 km daily
  - "Wholesale and retail trade" (G)
    25% of all vans, 60% drive less than 100 km
- Germany
  - "Wholesale and retail trade" (G)
    → deeper look into pharmaceutical distribution
  - "Transportation and storage" (H)
    → deeper look into CEP (courier, express, parcel deliveries)
  - "Human health" (Q) (for passenger cars)
    → deeper look into home / nursing services
- Austria:
  - commercial vehicles < 3.5 tons which are used in the branches "Production" and "Trade" (including parcel delivery services)
  - Additionally, "health services" due to the large amount of short trips between home care visits

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Outlook

WP 3/4: Electromobility for Selected Branches

- Quantitative survey among businesses in identified sectors to investigate connections between
  - Transport requirements today *and*
  - Knowledge of and attitudes towards electromobility
- GPS tracking

WP 5: Supporting Solutions to Enhance Usabilty

- Translate the requirements into a specification for the development of a methodological fleet management framework for EV and mixed fleets
- Evaluate the framework by implementing a customized exemplary application for an innovative mobility service, e.g. fleet sharing

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Thank you for your attention!

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