

Scandinavian Analysis of Urban Freight Logistics using Electric Vehicles

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SAFE

ABOUT THE PROJECT

There is a growing need for freight goods distribution in dense city centres. Freight carriers strive to provide optimal transportation services, but the current distribution systems are straining city logistics. The SAFE project therefore identifies four future scenarios for larger cities, associated new technological solutions and business models with these scenarios to provide for a better framework in the future.

THE OBJECTIVE

The project objective is to facilitate the use of electric vehicles in city logistics, and thereby get city planners and industry stakeholders to consider further developments in the field. The SAFE project will provide technical solutions, business models and overview of measurable environmental impact.

THE RESULTS

Through the analysis, four scenarios for the future were identified (Marketplace; Microtrains; CityRoadTrains;

and Public goods transportation) that provide insights into how potential business models may be relevant in the future. The initial analysis of differences between the Nordic countries showed that incentives are most developed in Norway, which is evident since Norway has one of the highest electric vehicle penetration per capita in the world. This indicates that the right level of economic and non-economic incentives can provide a boost for the electric vehicle market. There is also an important role for the municipality to play in order to define what kind of transportation there is demand for in the city centre in the future. Already now, measures can be taken to ease the transfer to electric transportation, such as:

- ▶ Allow faster access to the cities for electric vehicles
- ▶ Exchange part of the transportation in the city to electric vehicles
- ▶ Create an eco-label for products transported via electric vehicles or integrate it into existing eco-labels such as the Swan or Ø-branding

For the industry, the change of the cities in the future will demand a change in setup, which in term will also affect the business model put into use in these scenarios. Collaborative business models have been identified as a potential viable approach and initiatives in several Nordic and European cities are working with the Hub and Spoke model for urban distribution and night distribution, a new approach made possible with electric transportation.

The main challenges and obstacles for the realisation of the electrification of urban transportation are associated with the strategic choices made by the cities and government, where it becomes important to create the right support for electrifying logistics vehicles and non-fiscal incentives to make access easier for these vehicles compared to traditional fossil-fuelled vehicles.

PROJECT PARTNERS

Insero E-Mobility (DK), ECOMove (DK), EC Tunes (DK), City of Stockholm (SE), Grønn Bil (NO), Post Danmark (DK), Arla Foods (DK) and Aarhus University (DK).

