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MONITORING AND INFORMATION SYSTEM

D I G E S T

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Women and  
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Noel, L., Zarazua de Rubens, G. (2019)  
Are electric vehicles masculinized?  
Gender, identity, and environmental  
values in Nordic transport practices  
and vehicle-to-grid (V2G) preferences.  
Transportation Research Part D,  
72:187-202  
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## Are electric vehicles just for men?



**An analysis of the gender dimensions of electric mobility in Nordic countries found complex social dynamics that confirm differences between men and women regarding electric vehicles (EVs). However, these are changing and more women are expected to use EVs in the future.**

Since the 1900s, when EVs had a higher market share than they have today, aspects of gender have been associated with electric mobility. EVs were seen as 'women's vehicles' due to the ease of operation and relative cleanliness. At the dawn of the motoring age, manufacturers exploited gender norms to frame types of cars as masculine. Some of these gender differences exist today in several dimensions of mobility such as the preferences for different modes of transport.

Examining gender in transport can offer a better understanding of how households and adopters interact with EV technology. A study explored the gender differences in stated preferences for EVs and vehicle-to-grid (V2G) (where EVs can store energy and offer services to the grid) systems in five Nordic countries.

A mixed-method approach – using surveys, expert interviews and focus groups – was applied in Denmark, Finland, Iceland, Norway and Sweden to understand how gender influences perceptions and preferences for EVs and V2G.

Based on a literature review, the study tested three hypotheses:

1. Men use cars (conventional and electric) more than women, more often own an EV, driver further than women and use public transport less often

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## TRIMIS

The Transport and Research and Innovation Monitoring and Information System (TRIMIS) supports the implementation and monitoring of the Strategic Transport Research and Innovation Agenda (STRIA) and its seven roadmaps.

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TRIMIS is developed and managed by the Joint Research Centre on behalf of the European Commission.

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## Are electric vehicles just for men?

2. Women have stronger preferences for environmentally friendly and safety attributes of vehicles and have higher levels of general environmental awareness.

3. Women attach less importance to acceleration, power and sound, whereas men will emphasise range, sex appeal and acceleration.

The study found that gender preferences for EV and V2G in Nordic countries are dynamic and significant. In particular, men reported greater usage rates for cars and EVs, greater chances of ownership and greater distances travelled every day via private cars. These factors are statistically significant with a strong male preference for EV ownership.

In contrast, women reported higher levels of environmental awareness, and strong preferences for safety and convenience when they drive or own family cars. Women also attached less importance to design attributes such as speed, power or sound, whereas men reported prioritising speed, acceleration, status and sex appeal.

The study found a prominent association between stated car ownership and gender, kilometres driven and gender, and experience with and ownership of EVs and gender – all orientated towards men.

EVs are breaking conventional personal attributes of the car while reinforcing others. The focus groups discussed the changing aesthetics of sound; the masculinity of environmentally friendly cars; and the interplay between status, size and practicality (commuters favoured small EVs). EVs provide the opportunity to change gender distinctions applied to cars, given EV ownership among men in the sample was double that of conventional vehicle ownership.

The study challenges the simplistic assumptions made on the gender travel gap, such as 'men are more likely to adopt EVs'. Stated preferences for EV ownership does not mean they will persist. More women and recently retired people might enjoy the driving characteristics of an EV while being less inhibited in daily practice by its technical range limitations.

Gender patterns, identities and inequalities will affect the transport system as it undergoes major transformations. These changes could continue to erode so-called 'traditional' vehicle preference and vehicle use patterns. They will also influence future private and shared automobility markets, and the gender gaps, values, preferences and roles associated with them.