Accelerating the adoption of Electric Vehicles in Europe

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Background

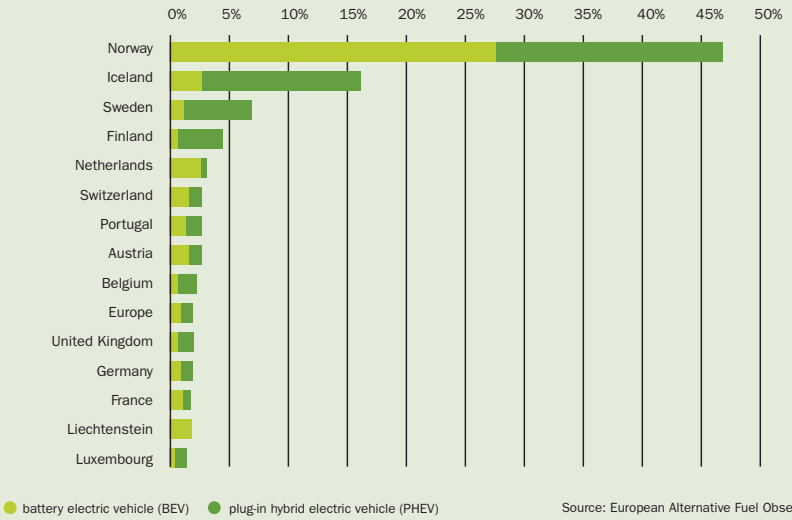
Electric vehicles (EVs) have the potential to considerably reduce transport emissions and contribute further to the decarbonisation of society, especially when coupled with low-carbon sources of electricity. As a result, in recent years EVs have experienced increasing interest internationally, with at least fourteen countries setting national targets for the number of EVs on the road between 2020 and 2030.[1] However, EVs represent only 0.2% of total global passenger vehicles in use[1] and have yet to succeed in displacing petrol and diesel-fuelled passenger vehicles.

Much of the debate around the progress of EV adoption has focused on technical issues such as driving range, charging infrastructure and their effects on power grids. Consequently, discussions have neglected to look at how the car retail industry is responding to policy and industry strategies, in particular when offering EVs alongside petrol and diesel vehicles to consumers.

In 2018 EVs accounted for only 2% of the European market share of passenger cars, led by Norway, Iceland, Sweden, and Finland (See Fig 1).[2] However, even in these leading Nordic markets, EVs currently face variable market conditions that prevent them from reaching mass market adoption.

Considering most consumers do not have previous knowledge of EVs, and also that current market conditions favour petrol and diesel vehicles, consumer experiences at car dealerships can strongly influence their EV purchasing decision.

FIGURE 1: CURRENT EV MARKET SHARE: TOP EUROPEAN COUNTRIES



Source: European Alternative Fuel Observatory

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Summary

Our research[3] into vehicle shopping experiences showed that – in 15 cities across Denmark, Finland, Iceland, Norway and Sweden – 92% of potential mass-market customers would have selected a petrol or diesel vehicle and not an EV. Outside of Norway, the world leader, that number increases up to 97%. Based on this research, we highlight recommendations at three key levels to support EV adoption:

1. Automotive salespersons and dealerships

From dealership executives to salespersons on the shop floor, those involved in automotive sales need better knowledge, confidence and willingness to encourage EV purchases. To this end, training schemes should be implemented for all staff and sales personnel around EV technology, vehicle specifications and sales processes (thus diffusing the capability currently held only by specialist salespersons), and sales commissions should be adjusted to make successful sales of EVs more attractive.

2. Automotive industry and Original Equipment Manufacturers (OEMs)

The broader automotive industry needs to develop and improve EV promotion, both to consumers and dealers. Marketing and promotional campaigns should be developed to communicate the benefits, specifications and availability of EVs to franchise dealerships. These messages and materials should not focus exclusively on the environmental attributes of EVs, but also on elements of superior performance, such as ease of operation, luxury, comfort, acceleration and safety.

3. National policymakers

Policymakers need to craft a more competitive policy mix for EVs to succeed at the retail level, where EVs should be priced competitively, alongside petrol and diesel options. This can be achieved by harmonising transport policy through a *bonus-malus* system, or other forms of subsidies and taxes. Incentives should also be introduced for intermediaries such as dealers and manufacturers, stimulating their motivation to sell EVs to consumers.

Changing automotive salesperson and dealership incentives

As a result of unfavourable market conditions for electric vehicles, car dealerships and sales personnel have been found to actively discourage customers from selecting an EV. We identified nine distinct barriers within car dealerships, including sales personnel being primarily dismissive of EVs as a purchasing option, misinforming customers on EVs specifications and tax schemes, and neglecting to include EVs within the sales conversation. (Read some of their direct quotes in the text boxes.)

> "Do not buy this (EV) it will ruin you, it will ruin you financially."

Notably, in 77% of all dealership visits conducted for the study, sales personnel did not discuss the existence of their EVs, despite having EV brands and models available for sale. This presents a significant barrier for EV adoption, as a typical consumer who is not familiar with EVs would remain unaware of their existence. The omission of EVs by sales personnel is related to their willingness and knowledge (or lack thereof) to promote the EVs. In 71% of the conducted dealership experiences, sales personnel demonstrated little or no knowledge on EV specifications, taxation schemes or product availability.

Although some OEMs have specialised EV sales personnel, consumers' access to this service is limited; we found that dealerships of a major OEM in Finland had only three dedicated salespersons available in the whole country, all of whom were located in the main urban settlements in the South. Admittedly, this may be dependent on the national policy context.

The lack of dealer understanding and knowledge surrounding EVs was also highlighted by the UK government's Road to Zero Strategy (published July 2018).[4]

As stated by industry experts in our study, EVs can take 2-4 times longer to sell than petrol or diesel cars, which limits directly the number of potential sales a salesperson can complete (as well as curbing the motivation to do so). Without the necessary integration into day-to-day business and sales processes, nor increased incentives to sell EVs over their fossil-fuelled equivalents, salespersons will likely continue to view EV sales as more time-consuming and less rewarding.

> "Most people just buy [PHEVS and hybrids] because of the tax breaks and… don't really use the electric part of it."

★ Recommendations for automotive dealerships

- **Develop and implement training schemes for all staff at car dealerships to foster interaction with EV technology and vehicle options.** This training should not be limited to specialised sales personnel, but distributed much more widely to increase capacity and consumer access.
- **Further operationalise EV business and sales processes**, through establishing EV sales methods, customer and salespersons information resources, contractual agreements for EVs (i.e. leasing) and sales handovers. Such measures would improve the day-to-day operational routine of selling EVs and would foster salespersons' willingness to engage and promote EVs.
- **Revise sales commission schemes (which could include sales competitions or bonuses) to increase EV sales' attractiveness**, with equal – if not greater – incentives to sell EVs over petrol or diesel options. As we elaborate below, this can be harmonised both with industry / OEM incentives as well as broader national policy architectures.

Altering automotive industry and manufacturer practices

A lack of active promotion of EVs at the industry level is also playing a large part in hindering their adoption, having a direct effect on consumer interest, EV competitiveness and model availability.

Seeing EVs as a worse business case, many manufacturers are hesitant to promote them downstream to retail markets. In our study, this resulted in EVs being selected as the purchasing option in only 2.9% of shopping experiences outside of Norway.

From the perspective of dealerships and salespersons, EVs are seen to be bad for profitability. They require capital investment in additional infrastructure (e.g. installing charging points) and personnel training. Lower overall selling rates mean a lower initial revenue stream, which is coupled with a reduction in income from after-sales vehicle services, such as maintenance.

Limited EV model availability is another hindrance. In some countries, availability is confined to a handful of dealerships, usually in the capital region, meaning that consumers looking to buy EVs must often be referred to outlets hundreds of kilometres away.

And EVs are not marketed directly to consumers in the same way as petrol and diesel vehicles, via printed, TV and online adverts, seasonal sales, etc. Campaigns tend to focus only on the environmental benefits of EVs, without featuring their technological premiums including acceleration and speed, safety, comfort, design and other advanced features.

★ Recommendations for the automotive industry

- **Manufacturers should improve marketing and promotion campaigns to communicate EV vehicle specifications and purchasing availability.** This would increase uptake from dealers, leading to more widespread availability and the readiness of dealers to fulfil increased customer interest.
- **Advertising should emphasise the non-environmental benefits of EVs such as acceleration, comfort, luxury and safety.**
- **National motoring associations (such as the Automobile Association in the UK) should publish electric vehicle guidance** for sellers, dealers and auction houses, and OEMs should also consider making changes to the documentation handed to new vehicle owners, to include specifications most relevant for EVs, such as battery size and electric energy consumption.[4]

Crafting more effective national policy mixes

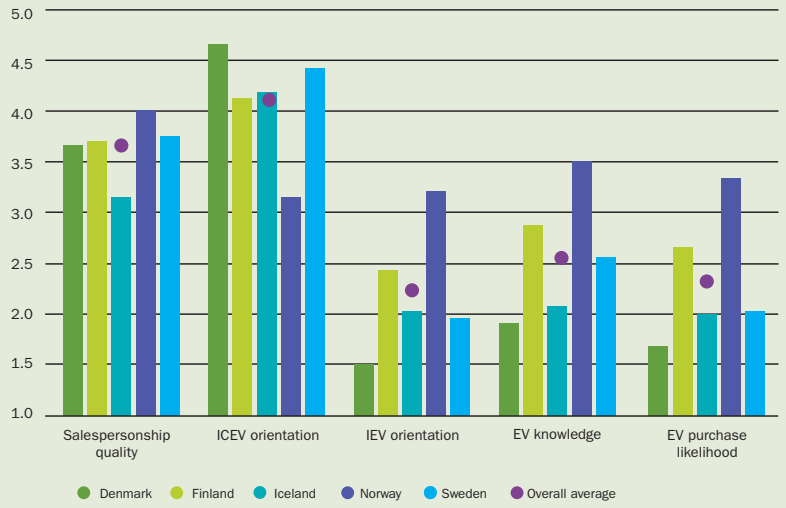
Despite fairly strong national policy mechanisms in place across all five Nordic countries, actual experiences at car dealerships (outside of Norway) show that EV initial purchase prices are often as much as €10,000 more expensive than comparable petrol and diesel vehicles – a clear indication that policy mixes for passenger vehicles are in need of harmonisation.

Dealership experiences revealed that petrol and diesel vehicles are being promoted to customers on the basis that "there's not a lot of tax", "not a lot of emissions" and "the government likes them." Policies such as a 5-year environmental tax exemption for petrol and diesel are thus, ironically, being used as selling tools, creating a positive image for fossil fuel vehicles rather than EVs.

Despite the five countries' similar ranking of salespersonship quality, all except those in Norway demonstrated a significant disparity in their orientation towards selling petrol or diesel vehicles over EVs (see Fig 2). Norway's high EV orientation ranking can be attributed to its leadership in EV incentives; conversely, the largest gap in this orientation was seen in Denmark, where the government has recently decided to tax EVs.[5] Danish dealers also showed the least displayed EV knowledge and their sales experiences resulted in the lowest likelihood in customers to consider an EV as their next vehicle option.

Furthermore, we found that salespersons at Danish dealerships repeatedly communicated an incorrect taxation level to consumers. Their confusion can be attributed to the changing messages communicated by government, whose initial plan to phase-in EV taxes in 2016 was subsequently adjusted in 2017 when EV sales stalled.

FIGURE 2: AVERAGE SALESPERSONS' RANKINGS IN THE NORDIC REGION



Source: adapted from Zarazua de Rubens, et. al. (2018)

A calibration of incentives across all passenger transportation could, for example, follow the structure of *bonus-malus* (a system that alternately rewards or fines), where carbon reduction could be incentivised and its production penalised. The optimal balance needs to be found between "carrots" and "sticks", otherwise the net effect could be null. Sweden is an early example of the transition to a properly calibrated transportation policy scheme. Historically, the country had a policy scheme favouring petrol and diesel-fuelled vehicles, based on the legacy of local manufacturing brands.[6,7] However, with the implementation of *bonus-malus*, Swedish transport policy has made the first step towards creating an equitable space for EVs.

Conclusion

Ultimately, EVs are at a severe disadvantage at the point of sale when competing with petrol and diesel options. Without more progressive action by governments, industry and dealerships, there is little-to-no incentive for consumers to buy (or dealerships to sell) EVs, even in the low-carbon environment emerging in the Nordic region, and likely throughout the rest of Europe.

Recommendations for policy

- **Governments should create a competitive space for EVs to operate at the retail level, through harmonising passenger transport policy across all vehicle options**. Policies need to increase incentives for EVs (such as rebates or tax credits), while also reducing incentives (and increasing the costs) for conventional vehicles, to ensure better marketplace price parity.
- **Governments should implement a *bonus-malus* policy scheme that incentivises the reduction of carbon and penalises its increase**. Care should be taken to attain the right levels of incentive, otherwise the net effect may be null.
- **Government messaging and signalling should be better disseminated downstream to industry, dealers and consumers**, to prevent the communication of out-of-date or incorrect information.
- **Governments should prioritise increasing motivation for intermediaries such as dealers and manufacturers to sell EVs**. Policy incentives in particular need to move beyond only consumers. This approach may prove to be even more effective than buyer incentives such as direct rebates or tax credits, given that a single dealership or salesperson could interact with and affect thousands of customers each year. Many planners perhaps erroneously think that direct price subsidies to potential adopters or purchasers are all that they have in their arsenal — yet this masks the immense potential that catalysing producers, manufacturers and dealers can have.

Our research

This briefing is based on an independent study of 126 visits to 82 car dealerships across 15 cities in the 5 Nordic countries (Denmark, Iceland, Finland, Norway and Sweden) between September 2016 and July 2017. The study was complemented with 30 interviews with leading industry experts to corroborate findings.

The full paper is available at: **https://www.nature.com/articles/s41560-018-0152-x**

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