

ELECTRIC CARS – NEW TECHNOLOGY NEEDS TO PICK UP THE PACE

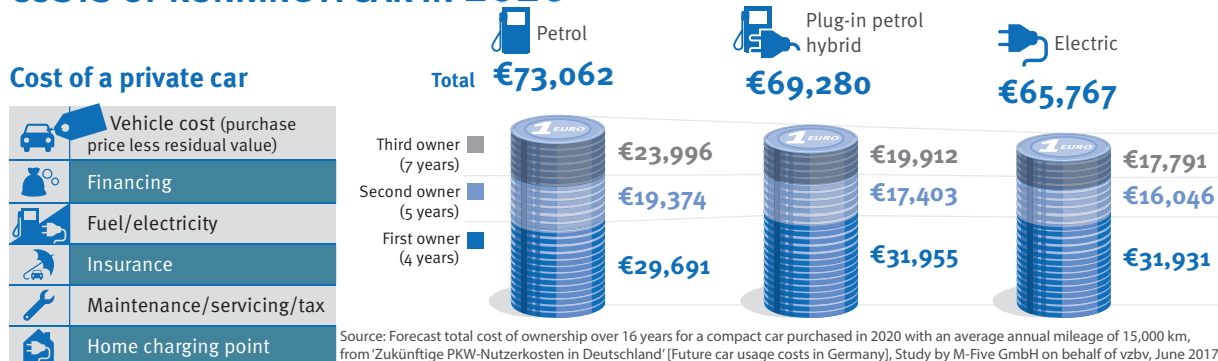
! Getting from A to B in an electric car and reducing the harm caused to health and the environment is a notion that more and more consumers find appealing. And yet many are still reluctant to make the switch from gas guzzler to electric. The biggest hurdles are the high purchase price, low range, and a lack of public charging points.

The latest registration statistics suggest that the German government is likely to fall short of its target of getting one million electric cars on the road by 2020. Not even the € 4,000 subsidy or the ten-year car tax break have proved a strong enough incentive. The Federation of German Consumer Organisations (vzbv) believes that more emphasis should be put on the total costs of vehicle ownership, and that these should be better explained to consumers. Taken over the vehicle's full life cycle, the lower running costs of an electric car mean that it will, in future, be more economical

than its petrol-driven equivalent. The main reason is that electricity is significantly cheaper than fossil fuel.

! On average, the daily distance driven by cars in Germany exceeds 100 kilometres only on 13 days a year.¹ This means that even the lower driving range of electric cars would easily be enough for most people's everyday travel needs. Investment in the charging infrastructure is needed to make electric cars more practical for everyday use – so that they can cope with the occasional longer trip.

COSTS OF RUNNING A CAR IN 2020



VZBV'S POSITION

Simple, standardised use of charging stations: All operators should be required to provide real-time information about their charging stations to a central, transnational online platform. It must be possible to pay at the charging points without advance registration or use of a special smartphone app – even abroad. It must also be clear what the cost of charging is, and how the price is calculated. Personal data provided during the charging or payment process must be protected.

Private charging points in communal garages: As stated by the Alternative Fuel Directive² the installation of private charging points in shared garages must be made simpler. This is currently being hindered by having to obtain permission from the landlord or owner – even when the owners of the electric cars are willing to cover the costs.

Expansion of the charging infrastructure: Policymakers must work with industry to encourage greater use of electric vehicles. An extensive and easy-to-use public charging network is essential. There must be sufficient numbers of charging points in more remote locations away from urban areas. More rapid charging stations are needed on trunk roads and motorways to facilitate longer journeys.

More sustainable energy from renewable sources: Environmentally and climate friendly e-mobility only works if a greater share of the electricity is produced from renewable sources. Electric cars and their batteries must also be produced in a manner that is as resource-efficient as possible and causes minimal environmental impact.

FACTS AND FIGURES

i The German National Platform for Electric Mobility estimates that by 2020, 70.000 public charging points and 7.100 rapid charging stations will be required along the country's motorways. At the end of 2016, the German Association of Energy and Water Industries (BDEW) counted just 7.407 public charging points at 3.206 charging stations in Germany.³

i The time needed to charge an electric car depends on the battery, the charging technology used, and the power rating. A 30 kWh battery takes around 13 hours to charge from a normal domestic socket, and two to four hours at a public charging point. Rapid charging stations can usually get the job done during a coffee break (10 to 30 minutes).⁴

i As in Germany, the best-selling car in Norway in 2015 was the Volkswagen Golf. However, Norway's top seller was not the version with a combustion engine but the electric Golf. One of the reasons for this is the extensive network of public charging points, many of which are free to use. Around 20 percent of new cars sold are now fully electric. In Germany, electric vehicles accounted for just 0.3 percent of sales in 2016.⁵

i In 2014, the Institute of Transport Research at the German Aerospace Centre (DLR) conducted a survey of first-time users of electric vehicles. 84 percent of private owners said they would recommend an electric car. The majority of business users said they planned to buy more.⁶

❖ ECO-FRIENDLY, BUT IMPRACTICAL?



Kerstin and Thomas are technophiles. When it was time to buy a new car, they both immediately thought of electric. They tend to use the car for short journeys and had heard about the low costs of owning an electric model, so they decided to go ahead and buy one. For the first few months, the couple were happy with their decision. The rapid acceleration made driving fun. The infrastructure was fine – they have a charging point in their garage and there are enough charging stations in the nearby town.

Journey into the unknown

One day, they needed to do a longer trip. Grandma Ida – who lives more than 400 kilometres away – was celebrating her 85th birthday. Thomas did some research and located the rapid charging points along their route. They should be able to manage about 250 kilometres, he reckoned. The couple made it to the selected charging station, only to find they couldn't log in. They managed to sort out the problem only after Kerstin got through to the operator by phone. An hour later and the couple were finally on their way again. At Grandma's, they got a call from home. There had been a break-in at their apartment and they had to return home immediately. But the only public charging point was faulty and it would take 13 hours to charge the car with electricity from Grandma's kitchen. Thomas and Kerstin now think their purchase of an electric car was a little premature.



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