A Role for IT

Dear Reader,

Aside from work, I've been driving exclusively electric since February. My first vacation with my Renault Zoe 40 took me to the Netherlands, the land of plenty when it comes to city- and highway-based fast-charging stations. Many of these stations even offer free charging, some are solar-powered stations.

But even though I had been a proponent of e-vehicles for around a decade, my decision to actually take the step away from a gasoline-powered private vehicle took a very long time, as I need to drive distances of around 160 km without recharging. My Zoe manages such highway trips with its 41-kW battery, and driving in and around town requires recharging only after around 300 km.

It was not only the performance of this affordable electric vehicle (EV) that encouraged me to purchase it. The charging infrastructure also had grown noticeably denser, even if it is not only the number of stations that matters, but being able to find suitable and available ones. Preparation is necessary. But it works, thanks to IT.

In his guest commentary on page 66, Klaus Baumgärtner, Founder and CEO of BridgingIT, suggests that this is still user-unfriendly and criticises the “tangle of multiple plug standards, charging currents and infrastructure systems”. As I see it, the heterogeneity of charging infrastructure isn't going to change soon. In fact, it's bound to get even worse. I think IT and Internet connectivity offer plenty of viable solutions – for instance, the use of smartphone apps to identify available charging stations – so that we can begin to implement right away.

But we still have good reason to avoid being overly optimistic. The fact that EV

drivers often have no option of paying by credit card is incomprehensible. The lack of reservation options is also disappointing. IT systems also need to become more intelligent. I would propose a “driver-in-the-loop” solution whereby drivers inform other drivers and service providers. Drivers and charging systems could then inform about the expected duration of charging cycles. Providers of e-car sharing services could also make vehicles charged to 50 % available to users who need less for their planned routes.

In the long term, full charging is to be completed in no more than 15 min. However, during the current expansion phase for our charging infrastructure, it will remain important to make use of IT to allay the worries of consumers who are considering the purchase of an e-vehicle. The time is indeed right for e-vehicles.

Come join us and share your insights at the upcoming ATZ Conference Grid Integration of Electric Mobility on 16 and 17 May in Berlin, Germany.

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