

# business:forum Automotive 2018

## The sector:network colloquium

### Management summary

Commerzbank's 9th sector event, 'Network Automotive Conference', took place at the Robert Bosch Campus, the main research and development centre for Robert Bosch GmbH near Stuttgart. It was the perfect location for a 360° view of the transition to a new mobility concept.

Leading speakers came together with numerous representatives from the automotive industry to gain an overview, through interactive presentations and lively discussions, of the latest developments in electromobility in Germany.



The 9th sector event, 'Network Automotive Conference', dealt with numerous aspects of electromobility, from blockchain to charging infrastructure and decarbonisation, and offered many opportunities for exchanging experiences and networking during the breaks.

## Electromobility – the new standard for tomorrow

There is already competition for new business models, digital innovation, technical solutions and strategic partnerships.

### Unlimited dynamics: the driving force behind the transition to a new mobility

According to Dr Christian Koitzsch (Robert Bosch GmbH), the driving forces behind the transition to electromobility today are happening on a global, rather than a national scale. They include

the congested transport infrastructures, which create traffic congestion and standstills rather than mobility across megacities and conurbations throughout the world. They also include global warming; addressing this will require the decarbonisation of all sectors of the economy, including a transition away

from the internal combustion engine. Another driving force is air pollution, which outside Germany reaches much worse dimensions. As Dr Koitzsch illustrates, "The amount of pollutants a pedestrian inhales per day in New Delhi during the worst smog period is equivalent to smoking more than 40 cigarettes."

Dr Benjamin Stephan (Greenpeace e.V.) designates the driving forces as the 'climate crisis' and the 'health crisis'. He also sees the potential for an economic crisis in Germany if the automotive industry fails to tackle the disruptive changes in the transport and mobility sector.

### **The transition to electromobility creates disruptive change**

Timo Sillober (EnBW Energie Baden-Württemberg AG) believes this danger is very real and draws parallels to the situation a few years ago in the mobile communications industry. Dr Stephan identifies several indicators that point to a drastic change in the industry in the move to electromobility. These include the success of Tesla, the strength of Chinese and Korean manufacturers and OEMs, and the fact that more countries are beginning to phase out new vehicles with internal combustion engines. Markus G. Spiess (Keliber Oy) poses an important question regarding the value chain for lithium-ion batteries. "Where is Europe?" This is another sign that the transition is already happening in full swing regardless of individual stakeholders being ready.

### **Reinventing the car**

Timo Sillober comments, "A rethink should be at the very top of company agendas if businesses are to avoid following in the footsteps of Nokia." Dr Benjamin Stephan believes that this means reinventing the car. He adds, "Today's cars are no longer part of mobility concepts for a decarbonized future. Vehicles will be small, lightweight, electrically powered and integrated into the shared economy."

All the speakers at the event agreed that the transition will not be limited solely to vehicles. Dr Koitzsch believes that mobility-on-demand is the future:



**"German players are very strong in the current technology mix, which makes them vulnerable in times of change."**

*Dr Christian Koitzsch, Senior Vice President, Future Components and Simulations, Robert Bosch GmbH*

"We'll be able to summon an electric robot taxi via smartphone app or wearables." He feels that this could happen more quickly than the timeframes imagined by many established companies. This is what signals disruptive change.

Put simply, mobility-on-demand would pass the two questions of Google's innovation test: Do you use it at least twice a day? Do you feel bad when you don't have it?

The experts at the conference also agree that the transition to new electrically powered vehicles and mobility-on-demand will have far reaching consequences. Dr Stephan states that, "We will need fewer cars." He agrees with Dr Koitzsch that the effects on cities will be enormous: roads will be less congested, traffic jams will be reduced, air quality will improve, dedicated parking areas will become largely obsolete and capable of being used by municipalities for other purposes. Sillober is

convinced that even the classic filling station will become superfluous. He says, "Inductive charging makes it very easy and convenient to charge electric vehicle batteries." The vehicle could be recharged when not in use, for example, when the driver is at home, at work or when shopping. Visiting the supermarket for an average of 35 minutes would allow sufficient time for the battery to be recharged. The days of complaining about diesel gloves or charging cables would be a thing of the past.

### **From car seller to mobility service provider**

It will probably not be enough for the automotive industry to reinvent the car to remain successful in the long term. The product of the future is mobility and not the vehicle. Dr Benjamin Stephan says, "The transition from car seller to mobility service provider is inevitable." New ideas for tomorrow's mobility market are in demand.

### **On the road with blockchain**

Michael F. Spitz (Main Incubator GmbH – a Research & Development Unit of Commerzbank) is aware of how blockchain could change electromobility. For



**"Nostalgia is no business model for the automotive industry."**

*Dr Benjamin Stephan, Traffic Expert, Greenpeace e.V.*



## Panel discussion: Stepping on the electric gas: How quickly can we transition to alternative energy and transport in Germany?

From left to right: *Dr Christian Koitzsch* (Robert Bosch GmbH), *Dr Benjamin Stephan* (Greenpeace e.V.), Conference Moderator *Peter Fuß* (Ernst & Young GmbH), *Dr Jörg Salomon* (StreetScooter Deutsche Post AG), *Markus G. Spiess* (Keliber Oy), *Timo Sillober* (EnBW Energie Baden-Württemberg AG)

example, the electric vehicle described by Sillober, which charges its batteries while shopping, needs a simple and safe way to pay for the electricity. The solution is the car e-wallet. Behind this would be a blockchain-based pay-on-the-go system as a component of autonomous driving. Spitz explains, "If you integrate a car e-wallet into deeper layers of the vehicle control unit, power can also be switched on and off."

And this opens up completely new possibilities: In the case of leased vehicles, for example, payment and performance could be linked. If an



**"We all need to  
rethink when it comes  
to electromobility."**

*Timo Sillober*, Senior Vice President, Products, Digital, Sales & Marketing, EnBW Energie Baden-Württemberg AG

instalment is not paid, the speed of the vehicle could gradually be reduced. At the same time, it would also be possible to purchase additional services.

The conference moderator, Peter Fuß, (Ernst & Young GmbH), asks "But what is the situation at this moment when it comes to electric mobility? And where does Germany stand today?"

### Infrastructure: The die is cast

Currently, EnBW alone offers drivers of electric vehicles access to over 16,000 charging points in Germany, Austria and Switzerland. Sillober reports; "When it came to covering the motorways, the main focus was setting up the charging infrastructure." The result is that one in three German motorway service stations already offers fast charging points.

But Sillober is also looking beyond charging stations. He also puts the customer experience first, when it comes to the charging infrastructure. The result is that customers can use the new EnBW mobility+ app both to find the next charging station and to pay. "The die is cast," says Sillober, summing up the state of the charging infrastructure. "Charging batteries is not the bottleneck on the road to electromobility." But could demand for batteries become a problem?



**"Thanks to blockchain,  
a car could in future be  
a bank customer."**

*Michael F. Spitz*, CEO, Main Incubator GmbH – a Research & Development Unit of Commerzbank

### Lithium – a key raw material

Markus G. Spiess says, "No, the supply of lithium, the key raw material for battery construction, is assured." The lithium market has of course started to move. Demand has been rising steadily for several years due to the use of lithium-ion batteries in smartphones, tablets, tools, bicycles, cars and power networks. A further 25 percent increase in demand is projected by the year 2031 to meet these needs.

Several new mega-factories have already been planned to meet future battery requirements: SDI Samsung in Hungary, Daimler in Germany, Nissan

in Great Britain, Northvolt in Sweden, LG in Poland and Tesla at an as yet unknown location. According to Spiess, global lithium production has increased by 20 percent since 2015. In light of these developments, Keliber intends to start developing its deposits in Finland from the end of 2018 and start producing lithium carbonate in mid-2020. Sillober says, "All that's missing now are the cars we need in order to step on the gas for the transition to alternative transport. Or cars from Germany at least."

### Who supplies the cars?

Deutsche Post became aware of the lack of suitable vehicles in 2011 when it tried to source a vehicle to carry out its 'last-mile' deliveries which would enable it to meet its self-imposed CO<sub>2</sub> targets. Dr Jörg Salomon (StreetScooter Deutsche Post AG) says, "In 2011, established German manufacturers simply didn't supply suitable electric vehicles." The logistics company decided to develop and produce its own high-performance electric logistics vehicle in partnership with a start-up company from Aachen.

### The StreetScooter story

In 2012, the StreetScooter prototype user requirements had already been established following research at many DHL locations. This was followed in 2013 to 2016 by extensive practical testing in postal operations, and the expansion of production and the product range. In 2017, box, flatbed, advertising-promotional and refrigerated versions were made available to third-party purchasers.

Around 6,000 StreetScooters are currently in use at Deutsche Post and there is demand for up to 40,000



### "Where are European companies in the new value chains?"

Markus G. Spiess, Advisor, Keliber Oy



### "Electromobility is the answer to imminent driving bans in downtown areas."

Dr Jörg Salomon, Vice President, StreetScooter Deutsche Post AG

vehicles. This commitment is paying off. Dr Jörg Salomon says, "In terms of maintenance and wear, the StreetScooter reduces costs by 60 to 80 percent. And in terms of fuel costs we save 60 to 70 percent." And additionally, Deutsche Post increased its CO<sub>2</sub> efficiency by 30 percent in 2016 compared to 2007 levels, and has a tried-and-tested Plan B in place in case a diesel ban is introduced.

### Ideas and makers are in demand

At the end of the 9th conference, Commerzbank's three sector captains outlined their conviction that although sales figures for electric cars in Germany are still marginal, the transition process towards battery electric vehicles and smart mobile concepts are accelerating at an increasing rate and that even disruptive change is possible. Those who miss the boat or wallow in nostalgia are likely to find it increasingly difficult to keep up. It is clear there will be no shortage of exciting topics for the 10th conference next year.

#### Legal notice

Publisher:  
Commerzbank AG, Corporate Clients, 60261 Frankfurt am Main, Germany  
May 2018  
Photos: Marc Gilardone

#### Contact

Frank Mäder, Sector Captain, Automotive, Commerzbank AG  
Tel.: +49 711 185 5052, frank.maeder@commerzbank.com  
Cedric Perlewitz, Sector Captain, Automotive, Commerzbank AG  
Tel.: +49 69 136 225 13, cedric.perlewitz@commerzbank.com  
Martin Rossmannith, Sector Captain, Automotive, Commerzbank AG  
Tel.: +49 89 3564 1048, martin.rossmanith@commerzbank.com