

Vive La e-Volution!

The e-mobility industry in Germany is on course for mass market penetration by 2020, with production, R&D and supporting technologies ramping up to meet that target. Is now the perfect time to invest?

A CETOs electric car (modelled on an Opel Corsa) charges at a tourist rental station in Welzow, near Brandenburg. Initiated by Brandenburg Technical University, the e-SolCar project has made e-cars available to tourists since 2013.



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Simon Hou, COO and co-founder of XCharge

The expansion of the e-mobility industry is a priority for the German government. As part of the country's environmental policy, there is a push to rapidly increase the number of electric vehicles (EVs) on the road by 2020. The federal government is ploughing hundreds of millions of euros into research and development, infrastructure projects and subsidies for car buyers. Meanwhile car manufacturers are bringing more and more models to market. The opportunities for investors in the industry have never been better.

The *Nationale Plattform Elektromobilität* (NPE), which set out plans to convert the automobile market to electric, is on course to achieve mass market penetration of the e-mobility industry by the target date of 2020. The public subsidies available to car buyers total €1.2bn. A further €300m is being spent on upgrading e-mobility infrastructure over the next three years: €200m for DC charging, which can fully charge vehicles within minutes, and €100m for AC charging stations, which are slightly slower. The generous tax breaks for EV owners include zero-rated vehicle tax for ten years and income tax breaks on charging cars while at work. EVs will also account for 20 per cent of the government's fleet of vehicles by 2020.

Boost to EV infrastructure

These measures address the main impediments to the wider use of e-vehicles, particularly the shortage of charging stations and low supply of Li-Ion batteries. The extra investment will see the number of AC charging points in Germany rise from 7,100 to 70,000 by 2020, while the amount of DC charging stations will increase from 300 to around 7,000 over the same period, according to NPE research. Plugs and sockets for e-vehicles are also being standardized, which will keep consumer costs down.

Among the overseas firms attracted to invest in Germany are XCharge, a Chinese producer of charging points for EVs and cloud-based charging software. It opened its new European HQ in Hamburg last December, having sold more than 20,000 charging points

in China. "We decided to choose Germany as the first stop on our roadmap to entering the European market," says Simon Hou, COO and co-founder of XCharge. "Germany has a long and successful history of development in the automotive industry. Most of today's best car brands were born here. There are top technical and management talents here that we are looking to develop. There are also favorable policies at both national and local levels to stimulate the growth of e-mobility and renewable energy industries – policies that are friendly to international companies."



André Kaufung CEO & Managing Partner, CharIN

CharIN e.V. was founded by ten OEMs and charging station manufacturers in 2015. Headquartered in Berlin, the association now has more than 110 members and represents 17 of the top 20 car brands worldwide.

What are the biggest opportunities for CharIN?

We have global co-operation with multinational members, as well as a market imperative for fast and safe charging systems for e-mobility and inductive charging. Charging infrastructure for all applications will play an essential role in the uptake of EVs.

How do you work with foreign companies?

Our local offices share regional developments and challenges with members. Working in groups, our members debate the current challenges and develop common requirements regarding different topics, such as charging infrastructure.

How can new companies get involved?

Members are invited to join focus groups, participate in position papers and discuss requirements for global charging standards. Membership details are available on the CharIN website www.charinev.org.

Germany leads Europe's "e-Volution"

German Original Equipment Manufacturers (OEMs) are also fully backing the "e-Volution." In 2015, there were 30 different EV models on the market, a further ten were added in 2016 and all have huge plans for the next three years. Volkswagen alone is looking at introducing 20 new e-models by 2020, while BMW plans to produce a plug-in-hybrid version of every major model on the market.

"Germany is Europe's leading production and sales market in the automobile industry," says Stefan Di Bitonto, Senior Manager of Automobile Industries at GTAI. "There is a resolute attitude to promoting e-mobility here, as it is an integral part of the bigger picture of Germany's environmental policy. The focus is moving away from pilot programs toward the creation of a nationwide e-mobility infrastructure and sustained business models to form a viable alternative to petrol and diesel engines. This requires investment, but creates a huge opportunity for private companies to stake a claim in an industry heading for a period of explosive growth."



Further information:
www.gtai.com/charging-infrastructure