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Zentrum für Sonnenenergie- und Wasserstoff-Forschung Baden-Württemberg (ZSW)

Standort Ulm:
Helmholtzstr. 8, D-89081 Ulm

More than 400,000 Electric Cars on the Road Worldwide

ZSW presents latest figures on global market growth - Germany yet to become a lead market

The number of electrically powered automobiles worldwide climbed to just over 400,000 in early 2014. This figure was determined in an analysis conducted by the Centre for Solar Energy and Hydrogen Research Baden-Württemberg (ZSW). The vehicle count doubled over the twelve months of last year, increasing by an impressive 200,000 units. The Ulm-based researchers found that demand is greatest in the USA, Japan and China, which are currently the globally leading markets. Germany is just seventh in the ranking, trailing France, the Netherlands and Norway. The most telling statistic is that countries with incentive programs have taken the lead in electric mobility, a market with a bright future. The top-selling cars are made by Japanese and American automotive companies; batteries are sourced mainly from Asia.

Incentive programs have sparked a run on electric cars in the lead markets. This benefits especially the pioneering companies Nissan, General Motors and Toyota. "Efforts in Germany are also quite impressive," says Prof. Werner Tillmetz, a member of ZSW's board of directors at Ulm. Research into batteries has been stepped up significantly and automobile manufacturers are fast-tracking the development of advanced electric drives. "However, it will take far more effort to establish a lead market in this country with an end-to-end value chain that includes the key component, the battery. Otherwise we will be left behind by the global competition."

Sharp, steady global growth over the last three years

According to ZSW's study, the number of registered electric vehicles increased at an annual growth rate of over 100 percent in the last three years. Nearly 100,000 electric cars were on the road worldwide in early 2012. A year later the vehicle count came to 200,000, and already reached 405,000 early this year. If the past three years' growth rates are sustained, then more than one million electric vehicles will be out and about worldwide as early as the beginning of 2016. The researchers tallied the global registration numbers for cars with battery-powered electric drives, range extenders and plug-in hybrids. They did not count motorcycles, trucks, buses or full hybrid vehicles, of which there are now more than six million.

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The United States are well ahead with 174,000 electric cars, followed by Japan (68,000) and China (45,000). Close to 30,000 electric vehicles are registered in the Netherlands, compared to just 17,500 in Germany. A similar picture emerges in the automotive company rankings. Nissan is in the lead, having sold more than 90,000 of its Leaf models, followed by General Motors with combined sales of its Ampera and Volt models topping the 60,000 mark. Toyota, which has moved over 40,000 Prius Plug-Ins, is in third place.

The battery is the heart of the electric car, and Europe's ranking in this regard is also quite disappointing. Much like consumer electronics, lithium-ion batteries for vehicles are manufactured almost exclusively by Asian companies. "Most car batteries come from Japan and South Korea," says Tillmetz. Energy storage units are the key technology for tomorrow's drives, and they determine the cost, range and safety of vehicles, among other factors. "If Germany wants to secure batteries' big share of the value-added, there will have to be a coordinated strategic effort to establish a German production," says the head of the ZSW division Electrochemical Energy Technologies.

The Centre for Solar Energy and Hydrogen Research Baden-Württemberg (ZSW) is one of the leading institutes for applied research in the fields of photovoltaic energy, renewable fuels, battery technology, fuel cells and energy systems analysis. The three ZSW sites at Stuttgart, Ulm and Widderstall are currently staffed with around 230 scientists, engineers and technicians supported by 120 research and student assistants.

Press Officers

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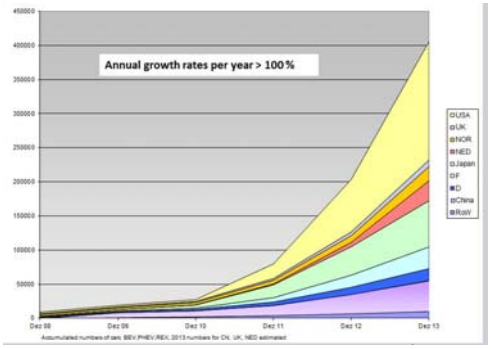

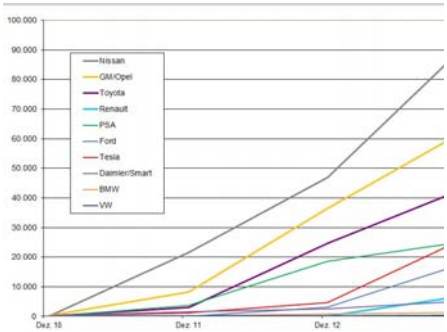

Electric vehicle registrations worldwide

Number of electric vehicles by manufacturer

Graphics: ZSW