

Electric Vehicle (EV) Market Growth Surpasses One Million Units in 2017

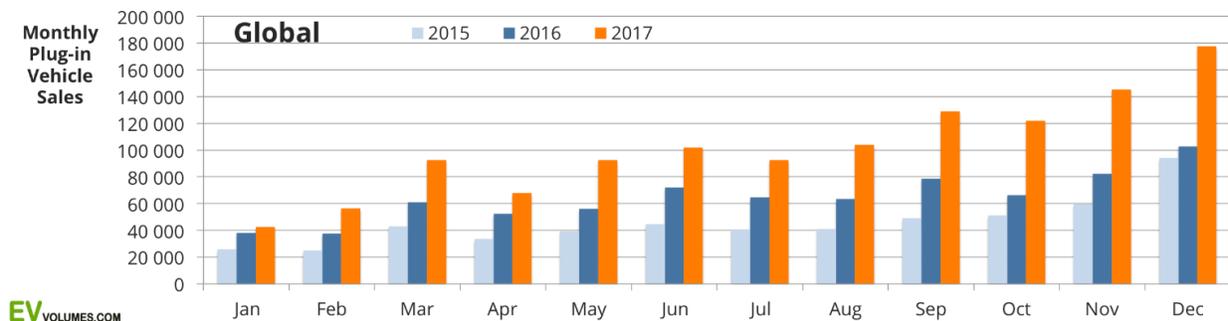
New Technology Innovation Trends Are Accelerating Future Growth

Overview of Global EV Markets

The worldwide Electric Vehicle (EV) market continues to see a high growth rate in all regions, reaching over 1 million units shipped in 2017 and poised for even faster growth going forward.

“Global plug-in vehicle deliveries reached 1,223,600 units for 2017, 58% higher than for 2016. These include all BEV and PHEV passenger cars sales, light trucks in USA/Canada and light commercial vehicles in Europe. 66% of sales were pure electric (BEV) and 34% were plug-in hybrids (PHEV). All-electric vehicles have been winning share, as the BEV-friendly Chinese market continues to win importance.”

- Market research firm EV-volumes.com



Going forward, EV-volumes.com projects a sales increase to 1.9 million units in 2018, boosted by strong EV adoption in China and mass production of the long-awaited Tesla Model 3. By the end of 2018, they expect over 5 million plug-in cars and light trucks to be in use worldwide.

According to [Bloomberg New Energy Finance](#) (BNEF), the Chinese government is “very focused on pushing up EV sales”. Aleksandra O’Donovan, advanced transport analyst at BNEF and one of the authors of the report, cites local pollution levels in the cities and China’s desires to build domestic heroes to compete internationally in this market as strong reasons behind this.

BNEF projects a steady growth increase through 2021, faster growth through 2025, and a dramatic acceleration through 2035. By 2040, well over half of all new Light Duty Vehicles (LDVs) sold will be EVs.

Key Technology Innovations Helping to Fuel Growth

As the automotive industry transforms toward dominance by EV market growth, several key technology enablers help to drive the adoption of EVs. Some of these include:

Battery Range

Battery range is a critical factor for opening up wider adoption of EVs. An average range of approximately 300 miles for battery electric vehicles (BEVs) could arrive as soon as 2022, offering an acceptable threshold range for early majority consumers.

Charging Stations

The growth of charging networks is beginning to accelerate in concert with rising EV sales. There are currently 20,178 EV public and private charging locations in the US, with an average of 2.75 stations/outlets per site for a total of 48,472 charging stations.

Main Subsystem Updates for Improved Efficiency

As less efficient conventional automotive systems and hydraulics-based mechanical systems are being replaced by more automated electric-based systems, manufacturers are looking for improved integrated solutions. Driven by the increasing prevalence of electric-powered mechatronics-based systems, there is more emphasis on new designs for automated controls and associated interconnect and electronic packaging needs, as well as solutions that enable more complex integration of multiple functions.

Many automotive functions are getting transformational makeovers in areas within Interplex's technology space, such as:

- Sensor Enclosures
- Electronic Connector Housings and Modules
- Brake Modules and Housings (ABS, ESC, EBC)
- Body Control Modules (BCM)
- Electronic Power Steering (EPS) Components and Sub-assemblies
- Specialized Connectors and Interconnect Assemblies
- Power Lead Frames and Busbars
- Complex Mechatronics Assemblies



Figure 1 – EPS Power Control Assembly

Summary

The automotive industry is reaching, or has possibly surpassed, a key tipping-point where EVs are poised to dominate the future of the industry. As the worldwide competition for EV market share heats up, automotive manufacturers and vendors throughout the supply chain need to step up their focus on innovation and rapid time-to-market development processes to compete and stay relevant. Consequently, more partnerships and collaborations between key industry participants opens up a whole new set of opportunities for acceleration of EV development and adoption, which in turn helps to transform consumer behavior and deliver ongoing environmental benefits.



Figure 2 – EPS Assembly in Car

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