



New TÜV SÜD white paper

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## Global market access for xEV battery systems

**Shanghai/Munich. TÜV SÜD has published its new white paper, “Achieving Global Market Access for xEV Battery Systems”. It discusses the key safety and performance issues that must be addressed in all xEV battery designs as well as the special requirements applicable to xEV battery systems in the EU, the USA, China and other major markets worldwide. The white paper also describes how TÜV SÜD works with OEMs in the automotive industry to navigate the homologation process and gain global access for products.**

The market for advanced electric vehicles (xEVs) is continuing to expand worldwide. Developers and original equipment manufacturers (OEMs) are facing growing numbers of regulations and standards addressing the safety and performance of the battery systems used to power these vehicles. Although many of these regulations touch on similar considerations, there are also important differences that must be taken into account during the various stages of battery design. Further, the regulatory approval process in key markets is often unique to a given country, and the successful navigation of this process requires a specific approach.

Johannes Roessner, Global Focus Segment Manager, New Energy Vehicles at TÜV SÜD and author of this white paper says, “The continual innovation and high quality of batteries and battery systems will be a key factor in boosting consumers’ acceptance of xEVs. For the manufacturers of xEV batteries and battery systems, market access for their products depends on how successfully they can fulfil the requirements and standards of the regulatory authorities in the major automotive markets of the world.”

Evaluation of the safety and performance of chargeable batteries and battery systems is a critical element in the development of xEVs and xEV technologies. International standards play a major role in this process, and compliance with the requirements of the standard contributes to improving battery safety. Validation of safety, right from the design and development process, further paves the way for the products to pass the tests required by the regulatory authorities.

The OEMs of xEV batteries and battery systems must foresee the complexity and challenges involved in different homologation issues in key automotive markets and be prepared to tackle them. By working proactively with third-party expert organisations to address these issues in advance, OEMs can proceed more efficiently and effectively and achieve faster global access for their products.

The white paper gives readers an overview of the homologation requirements for xEV batteries and battery systems and provides information about the UN World Forum for Harmonization of Vehicle Regulations and UNECE Regulation No. 100. It offers insights into the challenges involved in the homologation of xEV batteries and battery systems and how TÜV SÜD supports the developers and designers of xEV battery systems to gain global market access.

The white paper in English can be downloaded free of charge here:

<https://www.tuvsud.com/en/resource-centre/white-papers/achieving-global-market-access-for-xev-battery-systems>

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