July 25, 2025

New standard for digital twins of vehicle batteries

MHP and AWS develop new DIN SPEC

- DIN SAE SPEC 91487:2025-08 defines terms and characteristics for the use of digital twins for electric vehicle batteries
- The DIN SPEC was developed within a joint working group consisting of MHP, AWS, and another partner
- Users benefit from common standards and a uniform basis

Ludwigsburg – The management and IT consultancy MHP has developed a new DIN SPEC together with Amazon Web Services (AWS) and another partner. This defines terms and characteristics for the use of digital twins of batteries in electric vehicles (EVs). The DIN SAE SPEC 91487:2025-08, which was published today, was developed in just under two and a half years using the PAS process.

Christian Stapel, Partner at MHP: "With the DIN SPEC, MHP has once again confirmed its expertise in the field of digital twins and its ability to set up standards on the scale of DIN. Based on this experience, MHP also offers itself as a reliable consulting partner in the development of further standards in various areas."

The DIN SPEC provides uniform terminology, characteristics, and a framework for categorizing electric vehicle batteries. The aim is to facilitate communication and cooperation between international partners and to create a basis for future developments. It is aimed at research and development as well as providers of IoT and cloud solutions. Industry-specific or algorithmic requirements are not included.

"It all started with the development of a digital twin at an automotive manufacturer. There was a lack of fundamental standardization. With the appropriate competence and expertise, projects of this size can now also be successfully implemented," explains Dr. Markus Schütten, Senior Manager at MHP.

The project was implemented and formulated equally by all partners in a joint working group. MHP acted as the initiator and joint working group leader. AWS provided a solid foundation based on a preformulated maturity model – a Level 4 digital twin, used for monitoring and analyzing the batteries of electric vehicles utilizing live data, fleet knowledge, and AI.

MHP
A PORSCHE COMPANY

Contact

MHP Management- und IT-Beratung GmbH

Rebecca Vlassakidis
Sprecherin Digital Factory, Logistics & Customer Experience
+49 (0) 152 55 86 10 49
Rebecca.Vlassakidis@mhp.com

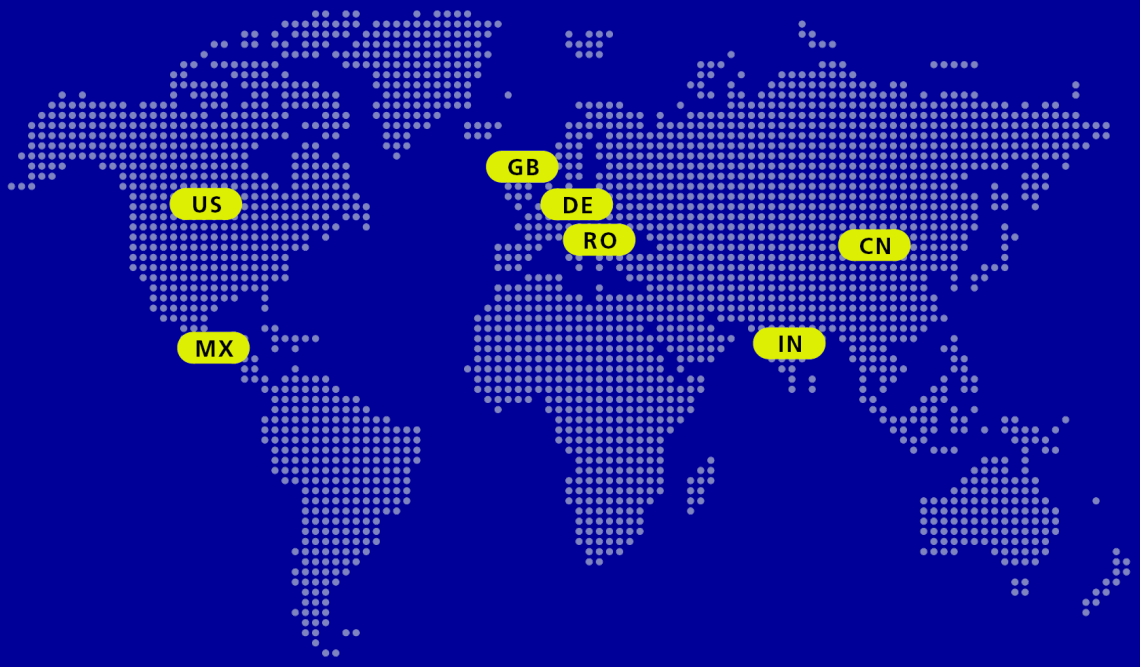
Mirko Geyer
Referent Data & AI, Cyber Security
+49 (0) 152 5580 7914
Mirko.Geyer@mhp.com

MHP Media/Newsroom
www.mhp.com/newsroom

Users benefit from the DIN SPEC above all because it is now easier to set up and standardize digital twins based on the existing standard in companies and to offer services. The DIN SPEC also classifies and categorizes digital twins, which can be referenced in legal documents. By integrating SAE International, American companies can also access this specification. In the future, the DIN SPEC is to be developed internationally into an ISO standard to promote global standardization.

The DIN SPEC can be officially downloaded here: DIN SAE SPEC 91487 - 2025-08 - DIN Media

ENABLING YOU TO SHAPE A BETTER TOMORROW



About MHP

As a technology and business partner, MHP has been digitizing the processes and products of its around 300 mobility and manufacturing sector customers worldwide for 28 years and providing support for their IT transformations along the entire value chain. For the management and IT consultancy, one thing is certain: digitization is one of the biggest levers on the path to a better tomorrow. This is why MHP, a Porsche AG company, provides both operational and strategic consulting in areas such as customer experience and workforce transformation, supply chain and cloud solutions, platforms and ecosystems, big data and AI, as well as Industry 4.0 and intelligent products. Headquartered in Germany, the consultancy operates internationally with subsidiaries in the USA, Mexico, the UK, Romania, India and China. More than 5,000 MHP employees are united by their pursuit of excellence and sustainable success. It is this aspiration that will continue to drive MHP – today and in the future.

mhp.com