

# FEV and Nature Architects collaborate on the development of Al-supported, innovative vehicle structures

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Aachen/Tokyo – Leading international engineering service provider FEV and Japanese technology company Nature Architects (NA) have agreed on a strategic collaboration. The goal is to jointly develop novel vehicle structures that set new standards in lightweight construction, functionality, and development dynamics through innovative design methods using artificial intelligence.

Both companies are contributing their respective strengths to the collaboration: FEV has extensive experience in vehicle development, providing platform data and benchmark models. Nature Architects complements this with a proprietary design platform based on Al-supported form finding, metamaterials, and origami engineering.

An initial joint project to optimize a side impact structure has already been successfully completed. This resulted in a weight reduction of up to 51 percent in the sill reinforcement while maintaining the same energy absorption and thus the same level of passenger safety. The results of this innovative approach, which shortens development times and thus opens considerable cost-saving potential, were then successfully validated in the overall vehicle model.

"With Nature Architects, we gain a partner whose unique design platform ideally complements our portfolio," said Michael Hog, Group Vice President Vehicle at FEV. "Together, we are creating the basis for a completely new, functionally and weight-optimized component design for our customers, regardless of whether the underlying requirement comes from the areas of deformation, vibration, acoustics, heat transfer, or flow."

"Our platform allows us to develop new structural concepts beyond human intuition," says Tomoya Hayashi, Project Manager at Nature Architects. "Combined with FEV's engineering expertise, this creates a space for innovation with high customer value."

The cooperation underscores FEV's leading AI expertise across the entire development chain, measurably reducing development costs and significantly shortening time-to-market.

Press Release: https://fev.group/7sl

Media Contact: Marius Strasdat | T +49 241 5689-6452 | strasdat@fev.com

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