

AZL Joint Partner Project

Scaling Composite Battery Casings for non-automotive vehicles

A modular platform for trucks, buses & off-highway vehicles
Can modular composite casings unlock cost and weight gains for low-volume commercial vehicles —and how?

AZL Aachen GmbH



Excellence in Lightweight Production

Plastic and composite battery casings have already demonstrated significant cost, weight and functional advantages in automotive applications. To leverage these benefits beyond passenger cars, modular and standardized enclosure concepts are needed that remain technically and economically viable even at low production volumes.

What will you get?

The project evaluates whether a standardized, modular composite battery casing architecture can provide a technically and economically viable alternative to vehicle-specific designs. It quantifies the cost and weight benefits of bundling production volumes across models and manufacturers and defines scalable Heavy-Class and Compact-Class kit architectures for future commercial and off-highway applications.

- WP1: Requirements & commonality
- WP2: Kit definition & interfaces
- WP3: Reference concepts & CAE
- WP4: Manufacturing benchmark
- WP5: Regulatory compliance
- WP6: Business case & scaling
- WP7: Industrialization roadmap

Open to join

Kick-off: Q3 of 2026

Duration: approx. 10 months



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