

MATLEV

NEW MATERIALS AND TECHNOLOGIES FOR LIGHTWEIGHT GENERIC COMPONENTS OF ELECTRIC LOW-EMISSION CONCEPT VEHICLE

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The main goal of the project is to design and offer new solutions in the field of vehicle architecture, based on innovative structural and functional materials. The project focuses on the development of environment-friendly advanced materials and their production processes which will be utilised to produce selected generic components for a Lightweight Electric Low-emission concept Vehicle (LEV). The major requirements for such components are lightweight, recyclability and eco-friendly initial substrates. Reduction of structural weight will be obtained by integrating polymers, natural fibres and textile reinforced composites, ultra-high strength nano-metals and other tailored, multifunctional materials.

In the first step, the requirements and overall specifications for the innovative lightweight electric low-emission concept vehicle components have been defined, taking into account material, process and product requirements as well as virtual conception of the highly challenging and innovative components. Innovative advanced materials, which will be used to produce generic components for new electric vehicle have been selected and developed. Currently they are tested and tuned-up to the needs of component fabrication. In parallel, innovative processes and technologies are being adopted to produce new vehicle components. Selected generic components such as frames, floor/door panels will be produced on the basis of these achievements. All these elements shall be developed in an integrated way, i.e. by combining materials design with fabrication technology.

PROJECT DATA

Funding/€	Total cost/€	Duration
680.613	688.205	36 months
Partners	Warsaw University of Technology, PL	
	Technical University Dresden, DE	
	S.Z.T.K. ,TAPS' - Maciej Kowalski, PL	

>> LIGHTWEIGHT MATERIALS AND COMPONENTS <<

