

EUROMAT 2019 / Area E Energy and Environment

SYMPOSIUM: E1

Title: Advanced Materials for Transport Applications VI		
Organizer	Institution	Contact email
Dr.-Ing. Dirk Lehmhus	Fraunhofer Institut for Manufacturing Technology and Advanced Materials IFAM, Bremen, Germany	dirk.lehmhus@uni-bremen.de
Dr.-Ing. Axel von Hehl	Leibniz Institute for Materials Engineering - IWT, Bremen, Germany	vonhehl@iwt-bremen.de
Dr. ir. René Alderliesten	Delft University of Technology, Delft, Netherlands	R.C.Alderliesten@tudelft.nl
Dr.-Ing. Kambiz Kayvantash	CADLM, Wissous, France	kambiz.kayvantash@cadlm.com
PD Dr.-Ing. habil. Jörg Hohe	Fraunhofer Institute for Mechanics of Materials IWM, Freiburg, Germany	joerg.hohe@iwm.fraunhofer.de
Prof. Dr.-Ing. Joachim Hausmann	Institute for Composite Materials (IVW), Kaiserslautern, Germany	Joachim.hausmann@ivw.uni-kl.de
Prof. Leif Asp, PhD	Chalmers University of Technology, Göteborg, Sweden	leif.asp@chalmers.se
Abstract		
<p>Transport applications are a major driving force specifically for structural material development, where weight reduction must be achieved in parallel to the fulfillment of several other requirements such as crashworthiness etc. The planned symposium will highlight lightweight design as common denominator of the symposium as a whole, but also define specific session topics to provide focal points for contributions. This is deemed mandatory from past experience to first win submissions against competing, technology-oriented symposia, then an audience. Session topics will be</p> <ul style="list-style-type: none">• Additive Manufacturing for Transport Applications• Advanced Casting Technology for Transport Applications• Hybrid Engineering Materials & Structures for Multi-Material Designs• Intelligent Materials, Structures and Systems for Condition and Structural Health Monitoring (SHM) and Product Life Cycle Management (PLM)• Simulation, Modeling, Optimization and Big Data applications for Process Discovery <p>For all of these, specific session flyers detailing the content will be prepared and</p>		

distributed. Further topics may emerge from submissions received.

All symposium organizers have significant experience with Euromat, and all can rely on a broad network of contacts in areas covered by the symposium, thus ensuring a significant number of contributions. To motivate further contributors, the organizers plan to directly address EU funded projects from the symposium's thematic area and suggest Euromat to them as ideal platform for publication of their results, discussion, and cross-project exchange. For this, we reserve the possibility of creating a special session, potentially with direct EU support.

Contributors will be offered the possibility of submitting their work to a dedicated special issue (SI) of a high-ranking scientific journal (still to be selected). In the past, such SIs have been realized with Adv. Eng. Materials (Euromat 2009 & 2017), Steel Res. Int. and J. of Intelligent Mat. Systems and Structures (Euromat 2011) and Materials & Design (Euromat 2013) and Materials (Euromat 2017). Besides the aforementioned, a candidate for Euromat 2019 is the Journal of Materials Processing Technology (Elsevier, Impact Factor 2016: 3.147).