



# High-Speed RTM Matrices

## AZL Workgroup

### MOTIVATION

Robust cycle  
times < 3min

New challenges  
by high reactive  
materials

High-speed  
RTM matrices

The industrialized composite market needs low-cycle times and fast development processes for the whole value chain, from the material to the application.

Resin Transfer Molding (RTM) is the current state of the art technology in high-volume production of thermoset composite parts. AZL Partner Companies founded a workgroup which meets every six months, in order to accelerate the technology development and enhance the trust in the RTM technology. As a first project, a consistent Model Material Data Sheet (M-MDS) for RTM resins has been developed for speeding up process and part developments. In upcoming meetings, next projects will be defined addressing the need for e.g. near process test methods, hybrid/sandwich constructions, automated preforming or material, machinery and process databases for fast cost evaluations.

## Model Material Data Sheet – First Workgroup Project

### MATERIAL DATA SHEET

- Development of a M-MDS as the first selection tool for every process participant (material supplier, designer, machine/tool manufacturer, part manufacturer,...)
- In workgroup meetings, the detail level and the best appropriate test methods has been discussed and defined
- 26 properties as general information, information of the cured resin and material process properties are now included in the M-MDS



Current RTM data sheets vary widely in terms of content and data structure. As this hinders developers from identifying quickly their suitable material, the AZL Workgroup "High-Speed RTM Matrices" initiated and developed a consistent Model Material Data Sheet (M-MDS) for RTM resins.

### MATERIAL BENCHMARK

Based on the details given in the M-MDS, the user can screen various materials and match them with available equipment

### SUITABLE MATERIAL

This leads to the selection of a high-speed matrix for specific application and machinery



Missions  
of AZL  
Workgroups



Technology-Oriented  
Networking



Building Trust in  
Technology



Impulses for  
Research Institutes



Identification of  
Pre-Competitive Topics

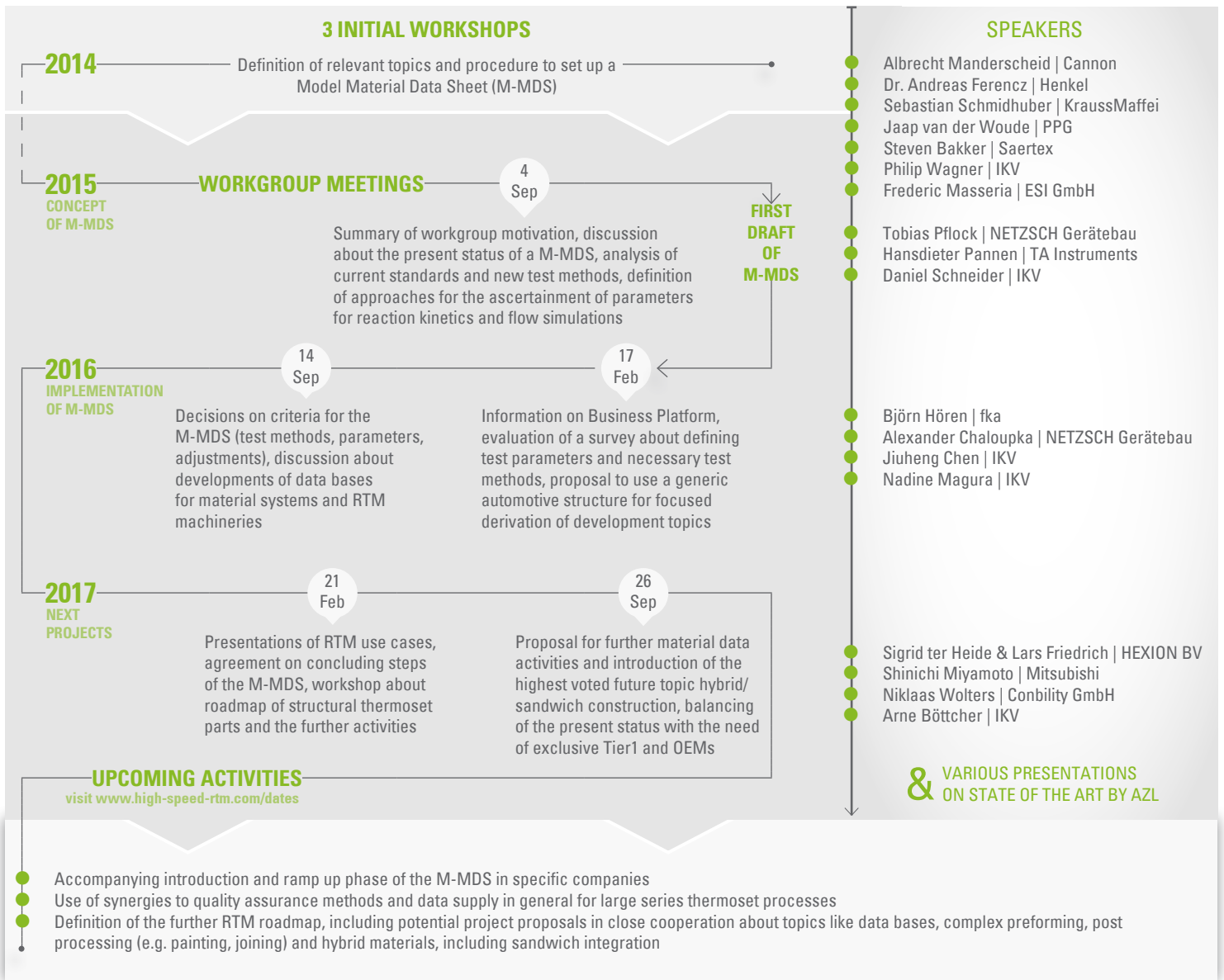


Initialization of  
Projects



Meeting every  
6 Months

# Workgroup History



## More than 30 involved AZL Partner Companies



## Business Platform "High-Speed RTM"



AZL Business Platforms were built in addition to the R&D activities of AZL workgroups and provide you with technology-related information on lightweight: Visit the RTM Business Platform to find established suppliers of High-Speed RTM materials and solutions as well as innovative development partners. Use cases provide you with an insight into realized RTM components.

Visit us at [www.high-speed-rtm.com](http://www.high-speed-rtm.com)

### MORE AZL BUSINESS PLATFORMS



## YOUR CONTACTS

### WORKGROUP LEADER



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