Motivation

The project has been inspired by an international network of innovative companies shaping the future of HP-SMC.

SMC (Sheet Molding Compound) has been a proven and first choice solution for several applications for many years, the most important markets are:
- Automotive
- Electronics
- Building and Construction

The drive to further weight savings and significant reduction in CO₂-emissions requires a next generation of High-Performance SMC (HP-SMC) that features:
- short and continuous fiber reinforcements
- both carbon and glass fibers
- customized resin compounds.

This study provides in-depth knowledge on SMC applications and technologies, key challenges and technological solutions for establishing High-Performance SMC and serves as basis for the elaboration of design guidelines, a target-orientated development and to open up new business opportunities.

Content

The market and technology study will focus on:
- The state of the art of SMC and HP-SMC technologies and their readiness
- Use cases & value chains for structural and Class A applications incl. best practice solutions
- FMEA, key challenges and fields of action for development to establish HP-SMC
- Next-level solutions and new business opportunities

STAGE 1: STATUS QUO ANALYSIS
- Technological state of the art for (HP-)SMC
- Use cases and applications
- Production scenarios & value chains

STAGE 2: DETAILED TECHNOLOGY STUDIES
- FMEA analysis for specific application and production scenarios
- Current technologies and their readiness
- Best practices solutions
- Remaining key challenges & fields of action

STAGE 3: NEXT-LEVEL SCENARIOS
- Scenario development to solve key challenges
- Evaluation of potential solutions from other technology areas
- Overview of market, value chains and providers for next-level solutions
- Basis for new business opportunities and development
**Key Benefits**

The target group are companies already active in the SMC value chain as well as companies which want to enter the SMC market.

**KEY BENEFITS**

- In-depth knowhow of the technological state of the art of HP-SMC & best practice solutions
- Provision of detailed insights into SMC applications and value chains
- Key challenges and fields of action to establish HP-SMC
- Overview of next-level solutions for targeted development
- Basis for evaluating new opportunities for your business development
- Entry into a long-term strategy community along the whole value chain and evaluation of cooperation opportunities

**SPECIFICALLY, THIS MEANS FOR:**

- **Material suppliers**
  Efficient improvement and development of HP-SMC materials based on latest technology insights
- **Equipment and mold suppliers**
  Design and produce next-generation equipment and molds tailored for demands of HP-SMC
- **Part manufacturers**
  Speed-up development processes and offer new solutions based on HP-SMC
- **OEMs**
  Directly communicate your demands to a network of companies and gain know-how from other value chain members
- **Engineering suppliers and part developers**
  Gain knowledge on how to design products- and processes for HP-SMC

**Conditions**

**TIMELINE**

- Start: September 2017
- Duration: 12 months
- Regular workshops with participants

**PROJECT CONTRIBUTION**

<table>
<thead>
<tr>
<th>External Participants</th>
<th>AZL and IKV Partners*</th>
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<td>15,000.00 € (excl. VAT)</td>
<td>12,000.00 € (excl. VAT)</td>
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* We offer a 20 % discount for AZL partner companies and members of the IKV association of sponsors.

**Your Contact**

**STUDY COORDINATION**

For further information on the study content and procedure, please contact:

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During an information event in May 2017, the AZL Workgroup on “High-Performance SMC” together with companies interested in the study discussed and sharpened the content of the study. © AZL Aachen GmbH

Competences along the entire SMC process chain are represented at the RWTH Aachen Campus. © Campus GmbH/Steindl

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