

AZL Workgroup

AZL is the
OFFICIAL CENTER of



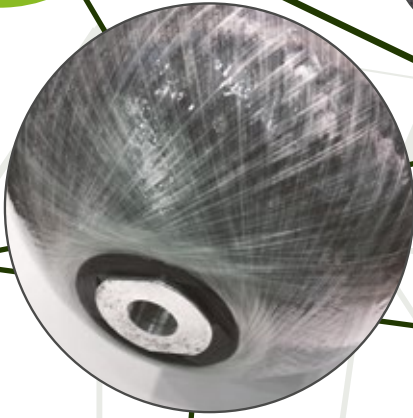
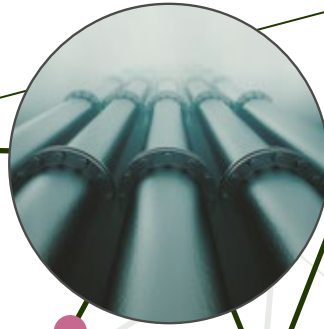
for Composite-based
LIGHTWEIGHT
PRODUCTION

Composite Pipes & Vessels

Expert &
Business
Community



Join an extensive partner network from industry and science that develops new solutions and ideas around fiber-reinforced pressure tanks



Thermoset Process Technology Thermoset
 Examples: 3D printing, Resin transfer moulding

Thermoplastic Process Technology Thermoplastic
 Examples: Extrusion, Injection moulding, Blow moulding

Composites Process Technology Composites
 Examples: Hand lay-up, Resin transfer moulding, Pultrusion, Prepreg, Vacuum bagging, Resin infusion

Related pre-products and materials
 Examples: FRP resin, FRP fabric, FRP reinforcement, FRP laminate, FRP prepreg

Subject of the study

- Thermoset/Thermoplastic
- Composites
- FRP
- FRP reinforcement
- FRP prepreg
- FRP laminate
- FRP resin
- FRP fabric
- FRP reinforcement
- FRP laminate
- FRP prepreg

Planned Specification and Input Data

Output Data

Example of a cost model

Example of a cost model

In four project phases, the AZL conducted an in-depth workgroup focus study on thermoset and thermoplastic FRP production technologies for composite pressure vessels. The study providing a market technology overview and example cost models and analyses is available for all AZL partners and included in the regular AZL Partnership fee.

The AZL conducts frequent workgroup focus studies jointly defined by the workgroup. The studies provide in-depth insights and broad overviews of lightweight technologies and markets and are included in the partnership fee at no additional charge.

More info: 

Missions of AZL Workgroups



Connecting Science, Engineering and Production

The goal of the workgroup is to combine the requirements and needs of OEMs and part manufacturers with the **novel solutions of fiber-reinforced composites and hybrid materials in pipe and vessel technologies.**

Basically, we are connecting the market “pull” with the technology “push” in many different industries. From automotive, aerospace and construction to oil and gas, marine and hydrogen economy. During our periodic meetings twice a year, the workgroup is connecting more and more with technology decision makers.

Roadmap & Topics

Since 2014, the workgroup has not only worked intensively on the development of new technologies, but has also conducted extensive market analyses. With changing

focus topics, the emphasis is on different modules in the value chain. The topics are always based on current pain point lists within the partner network.

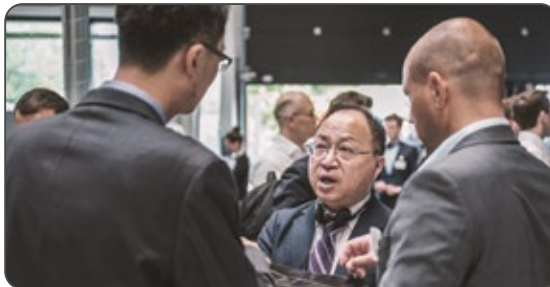
Braiding and Multi-Filament-Winding

Thermoplastic- & Thermoset-based Pressure Vessels

Multi-Material Designs

Hybrids in Pressure Vessels

Recycling/ Circular Economy



Impulses for Research



Identification of Pre-Competitive Topics



Initialization of Projects



Meeting every 6 Months



Find more information about our AZL Workgroups

In cooperation with



What our Workgroup is all about

The primary goal of the AZL Workgroups is to network active partners from research and industry, from production and application development in the field of pipes and vessels.

The activities go far beyond pure networking. The definition of real goals and initiatives and the regular exchange lead again and again to new processes, products and collaboration and make the AZL Workgroups so unique.

These are the six AZL Workgroups:

- High Performance SMC
- Advanced Thermoset Production
- Composite Pipes & Vessels
- Composites in Buildings & Infrastructure
- Hybrid Thermoplastic Composites
- Product Cost Benchmarking

Join the Network of more than 80 active Partners:



About AZL

AZL stands for excellence in lightweight production. As a one stop shop for market and technology know how, the senior staff of AZL brings together experts and decision makers from academia and industry to support business and technology development for the lightweight industry. We support you, regardless of your position in the value chain, in the development, benchmarking and improvement of your design methodologies, manufacturing techniques and products.



Workgroup Leader
Simon Greive
+49 241 80 24526
simon.greive@azl.rwth-aachen.de



Senior Project Manager
Philipp Fröhlig
+49 241 475 735 - 14
+49 176 80488799
philipp.froehlig@azl-aachen-gmbh.de