Customized Efficiency

Your Partner for Additive Manufacturing
ACAM Aachen Center for Additive Manufacturing provides access to innovative know-how, consultancy and training. We qualify your staff to meet challenges that the industry will face in the future. In strong partnerships, we develop strategic roadmaps and place Additive Manufacturing in your production environment.

**Mission**

**Direct access for industry members to the AM resources**
ACAM develops strategic roadmaps and helps you integrate Additive Manufacturing resources into your production environment. Based on the competences of our research partners, we can offer the whole range of consultancy – from desktop studies to prototypes, from feasibility to implementation.

**Center for information exchange, joint R&D and targeted training**
By combining the know-how of our expert teams, ACAM assists you in finding the right resources to fulfill your production requirements and provides an integrated range of services along the entire value chain. Based on our experience in Additive Manufacturing, we observe relevant developments and assess them for you.

**ACAM connects industry and research**
Your success is our driver. By connecting the relevant people and resources, we enable you to stay up-to-date and have the fundamentals for your decisions. Our Community is growing constantly, integrating different branches and competencies along the value chain. Become a member and get access to the network.
Business Innovation
Experience shows: Implementing Additive Manufacturing does not only rely on technological questions, it is the business strategy that finally leads to a successful implementation. By applying innovation in your business, you can not only increase the efficiency and quality of your processes but also develop and provide better products and services. We will gladly prepare a package of methods to help you achieve these goals.

Process Chains
Additive Manufacturing cannot only rely on the pure application of new technologies only. It is the combination with other technologies that enable new product functionalities and keeps costs in a realistic horizon. Optimizing your process chains will thus create new possibilities and reduce the wasting potential. We offer consultancy services for all phases of a product’s life cycle.
Member Benefits

As a basic member you have access to the ACAM community. You will receive the annual report and you will be invited to all community events. In addition, you have a budget to allocate vouchers and thus participate in Consortial R&D Projects.

Annual voucher budget: 6,000 €
Annual membership fee: 12,000 €

As a business member, you will be – in addition to the basic membership benefits – involved in decision-making processes such as defining our ACAM roadmap. You will benefit from our continuous AM monitoring and review as well as getting discounts for seminars and other events.

Annual voucher budget: 18,000 €
Annual membership fee: 40,000 €

The cooperation membership is designed to promote a collaborative technology and service exchange. It is of special interest if you are a solution provider in the area of Additive Manufacturing. The duration and the costs are arranged individually.

Annual voucher budget: none
Annual membership fee: to be arranged accordingly to your needs

Community
- In the ACAM online platform, you can interact and exchange information with all of the other partners, as well as explore the upcoming events.
- Introduce your company during the Annual Meeting and build new business relationships.

Consortial R&D
- All members and research partners collaborate, using their expertise to clearly define project topics and scope.
- All projects are integrated in the roadmap and pre-selected by the business partners.
- The selected projects are presented in the annual meeting.
- During the annual meeting, the vouchers can be allocated to the projects which will then be realized.

Contractual R&D
- As alternative to the Consortial R&D Projects, ACAM offers non-disclosure bilateral or multilateral agreements.
- ACAM arranges the research team according to your specific project requirements and serves as a general contractor.

Training & Education
- Seminar Program: Each seminar is dedicated to a specific challenge of the AM field and hosted by one of the ACAM research partners.
- Training sections: We offer customized training seminars to prepare your staff for the advances in the AM sector.
- Workshops: Our workshops include the direct exchange of expertise as well as hands-on sections.
- In-house Seminars: We organize exclusive seminars. Also at your company if it suits you best.

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<tr>
<th>ACAM MEMBERSHIP</th>
<th>BASIS 12 k€ / a</th>
<th>BUSINESS 40 k€ / a</th>
<th>COOPERATION Adaptable fee</th>
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<tr>
<td>Voucher</td>
<td>6 k€ / a</td>
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<td>Community</td>
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<td>Annual ACAM report</td>
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<td>AM Technology monitoring and review</td>
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<td>Consortial R&amp;D</td>
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<td>Co-decision on ACAM R&amp;D roadmap and research topics</td>
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<td>Annual ACAM R&amp;D projects on agreed topics</td>
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<td></td>
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<td>Prototype manufacturing along the process chain</td>
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<td>Strategy-, market-, and technology-oriented consulting projects</td>
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<td>Training and Education</td>
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<td>Seminar for employees and decision makers</td>
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<td>Modules for professional further education</td>
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<td>In-house seminars</td>
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Annual membership fee: to be arranged accordingly to your needs
ACAM Events

Community Meeting

Consortial Projects: voucher allocation and workshop sessions
Invited presentations on recent additive manufacturing topics

3D Valley Conference

Workshops and one-day presentation program
Networking in the Industry Exhibition

Additive Manufacturing Monitoring
Business gathering between members and research partners

Sessions on metal and polymer based Additive Manufacturing
Shop floor visit / Live presentation
Manufacturing technologies have a new colleague. Regarded for a long time as a pure prototypical approach, AM technology has now achieved series-production readiness for suitable applications. While often over-simplified as a kind of 3D printing, AM technologies are key drivers that can open up new market opportunities for machine suppliers, manufacturing service providers and designers/OEMs. As machines, materials and software solutions become more available, their implementation will extend into new process chains with impressive business innovations. In this context, the ACAM Aachen Center for Additive Manufacturing was founded as a platform for networking, coordinating joint research and development as well as conducting training and education seminars.

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The Photonics Cluster, one of six initial clusters on RWTH Aachen Campus, specializes in the research and development of processes for generating, guiding and using light, particularly as a tool for industrial production.
Research Partners

Fraunhofer Institute for Laser Technology – ILT
With about 420 employees and 11,000 square meters of usable space, the Fraunhofer Institute for Laser Technology (ILT), founded in 1985, is one of the most important contracting research and development institutes of its sector worldwide. Its experts develop and optimize laser beam sources and laser processes. In close cooperation with its clients, it uses laser technology to solve tasks for production, measurement technology, environment, energy, medical technology and biotechnology, all done in real life situations.

Fraunhofer Institute for Production Technology – IPT
The Fraunhofer IPT combines knowledge and experience in all fields of production technology. In the areas of process technology, production machines, mechatronics, production metrology and quality as well as technology management, we provide our partners and customers tailor-made solutions and immediately actionable results for modern production.

KEX Knowledge Exchange AG
As a professional technology and market information provider, our USP is to enable sustainable decisions. Located at the heart of a broad expert-network, we are in touch with the latest technology trends and involved with the development of innovations. By deploying unique information screening technologies, we support customers with systematic and scalable technology scanning, scouting and monitoring approaches.

Chair for Production Engineering of E-Mobility Components – PEM
The Chair of Production Engineering of E-Mobility Components – PEM represents path-breaking research and innovation in the area of electromobility. Its group Plastic Components deals with cutting, forming and manufacturing methods as well as with coating technology. Its research is focused on the plastic components for small series such as the production of electric vehicles. In addition to providing research and consulting activities, such as the tool and mold construction or assembly of systems up to vehicle prototypes we create and design the future vehicle. We therefore work in close cooperation with our clients from the automotive and automobile industry, energy, and consumer goods industry. PEM also offers training courses and cooperates with universities to develop production engineers of the future.

Laboratory for Machine Tools and Production Engineering – WZL
Across the world and for many decades now, the Laboratory for Machine Tools and Production Engineering – WZL of RWTH Aachen University has stood for successful and forward-thinking research and innovation in the area of production engineering. In six different work areas, the WZL does not only focus its research on fundamental theories and findings, but also on the application of findings in an industrial context. Furthermore, it advances practical solutions to rationalize production processes. The Laboratory for Machine Tools and Production Engineering is headed by four professors: Christian Brecher, Fritz Klocke, Robert Schmitt and Günther Schuh.

The IFW – Institute for Toolless Fabrication
The IFW – Institute for Toolless Fabrication – is an affiliated institute of the FH Aachen University of Applied Sciences. The institute focuses on 3D printing of plastics and metals, fabbets (FF) for plastics, design and DIY strategies as well as education and training on 3D Printing. It is led by Prof. Dr.-Ing. Andreas Gebhardt from the Department of Mechanical Engineering and Mechatronics, Advanced Fabrication Technology and Rapid Prototyping. Prof. Gebhardt is a renowned specialist in the area of Additive Manufacturing.

Access Technology
Access provides Material competence. Deep knowledge of metal solidification since 30 years is based on numerous governmental funded and industry related projects. Thermodynamic Databases, fundamentals of solidification, phase kinetics and phase transitions, texture and grain structures and new materials and processes are the main research areas. Access is strongly involved in global ICME activities and has developed and uses own Simulation tools like MICRESS for microstructure formation or tools for property prediction of alloys. Laboratory and technology level equipment for solidification experiments, investment casting, heat treatment and an outstanding analytic department with SEMs, computed Tomography and more serve on the practical side.

Institute of Plastics Processing – IKV
The Institute of Plastics Processing – IKV at RWTH Aachen University is, Europe-wide the biggest research and education institute engaged in the field of plastics processing. IKV’s research activities comprise the processing of plastics and rubber in the fields of injection moulding, extrusion and rubber technology, part design and materials technology, composites, and polyurethane technology. IKV’s close contacts with industry and science, to get her with itsfulfilling facilities, ensure that students benefit from a comprehensive, practically oriented course of study. Prof. Dr.-Ing. Christian Hopmann is Head of the Institute and Managing Director of the Association of Sponsors which includes more than 240 plastics companies from all over the world. He also holds the Chair of Plastics Processing at the Faculty of Mechanical Engineering at RWTH Aachen University.

The Chair for Laser Technology – LLT
The Chair for Laser Technology – LLT of the RWTH-Aachen University is led by Prof. Poprawe and closely tied to the Fraunhofer Institute for Laser Technology. Worldwide renowned for its scientific work in the field of laser source development, as well as laser applications in general, LLT is specifically engaged in the fields of Laser-based Additive Manufacturing (Selective Laser Melting (SLM) and Laser Metal Deposition (LMD)) of metals as well as laser drilling and ablation with ultra-short pulsed lasers.

Nonlinear Dynamics of Laser Processing – NLD
The Chair for Nonlinear Dynamics of Laser Processing – NLD of the RWTH-Aachen University is led by Prof. Schulz who is also head of the modeling and simulation department at the Fraunhofer Institute for Laser Technology ILT. The main focus of NLD is modeling and simulation of laser manufacturing processes like cutting, joining, ultra-short pulse ablation and drilling and laser additive manufacturing (LAM). By combining physical, mathematical and numerical reduction techniques with high performance computing, NLD and LLT develop structural mechanics solvers for LAM processes.

Institute for Automotive Engineering (ika)
ika of RWTH Aachen University is Europe’s leading institute in automotive engineering, directed by Professor Lutz Eckstein. Starting from the idea to innovative concepts for components and systems up to vehicle prototypes we create and design the future vehicle. We therefore work in public-funded as well as bilateral projects for manufacturers and suppliers in automotive context. Ika employs more than 135 members of staff and over 200 student assistants. In addition to that more than 200 student research projects, bachelor and master theses are part of our research and development projects each year.

The Institute for Automotive Engineering (ika)
Our Member Network

Join the ACAM Community!
Community | R&D | Services | Education

Business Members
Toyota voestalpine Züblin Schaeffler

Basis Members
CONCEPTLaser IHI RWTH Aachen University LTV Relax

Cooperation Members

Join the ACAM Community! Contact us

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