



**ACAM  
AACHEN CENTER FOR  
ADDITIVE MANUFACTURING**



**ACAM**  
**Aachen Center for Additive Manufacturing GmbH**

Community

R&D

Services

Education

# Additive Manufacturing

## Bringing the Vision into real production environment



“Additive manufacturing (AM) will become a future core technology in the production industry.” [Roland Berger Strategy Consultants 2013]

...however, many challenges still remain unsolved.

### Design

A **new generation** of engineers have to be trained that can use highly efficient 3D CAD tools.

### Processes

Existing AM processes have to be **further developed** and **fundamentally new** approaches to be investigated.

### Process chains

The most effective and efficient combination of **different processes** has to be achieved.

### Business Innovation

**AM pays out** when it is implemented at the right time, for the right purpose, at the right place,...

# Aachen, the Place to be...



...located in the center of Europe...



...hosting the RWTH University, renowned institutes and companies...



## Strategic partners of the Aachen Center for Additive Manufacturing:

- Fraunhofer ILT
- Fraunhofer IPT
- RWTH Aachen University
- Aachen University of Applied Sciences
- KEX Knowledge Exchange AG
- PEM Aachen GmbH
- WBA Aachener Werkzeugbau Akademie GmbH

Aachen is a hotspot of world-class institutes, research centers and startup companies where scientists are developing innovative technologies, processes and products.

# ACAM

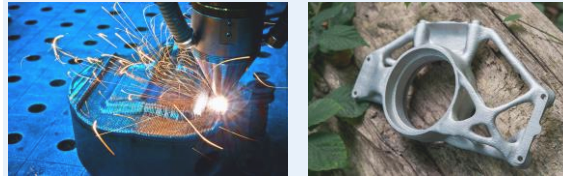
## Aachen Center for Additive Manufacturing



### Partners

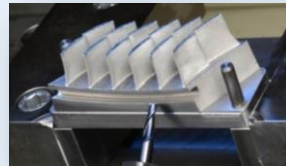


### Competences

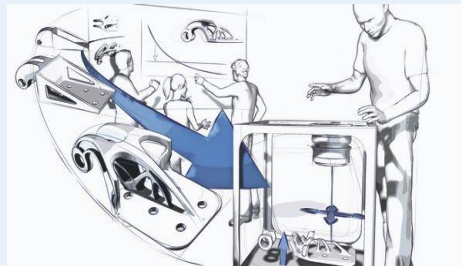


Process Knowhow

Design



Process chains



Business Innovation

### Offer

Community

Services

Training Education

Research Development

## ACAM

Aachen Center for Additive Manufacturing

The ACAM GmbH runs a center at the RWTH Aachen Campus

Cluster Photonik





# ACAM

## Aachen Center for Additive Manufacturing

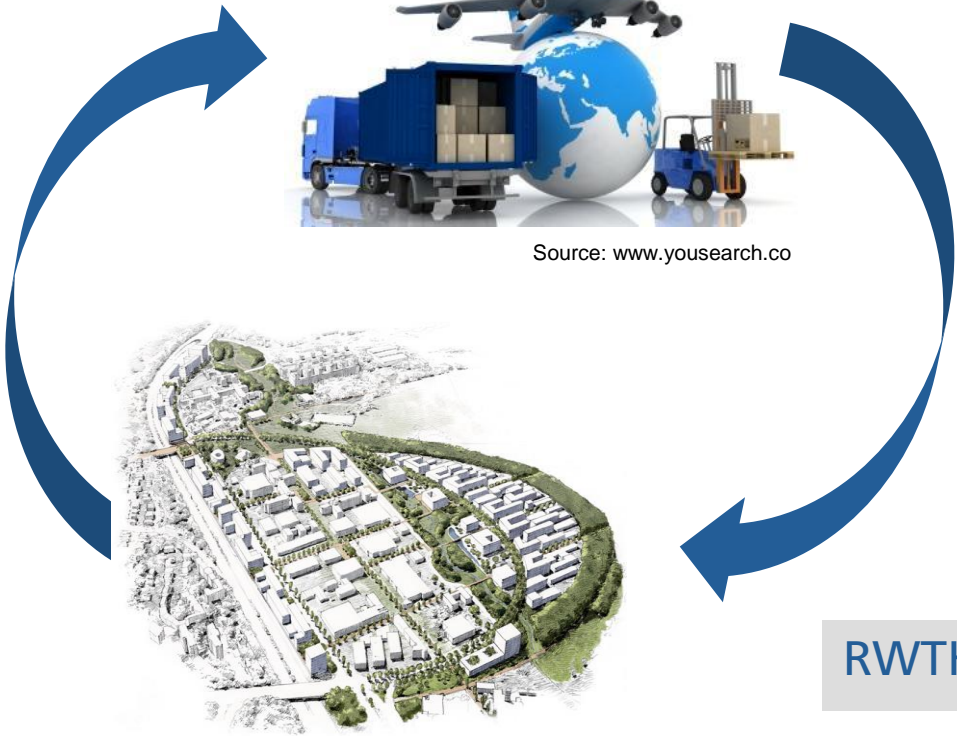


ACAM will bundle Aachen competences in Additive Manufacturing and provide a holistic offer along the value chain for its member companies from all relevant industries

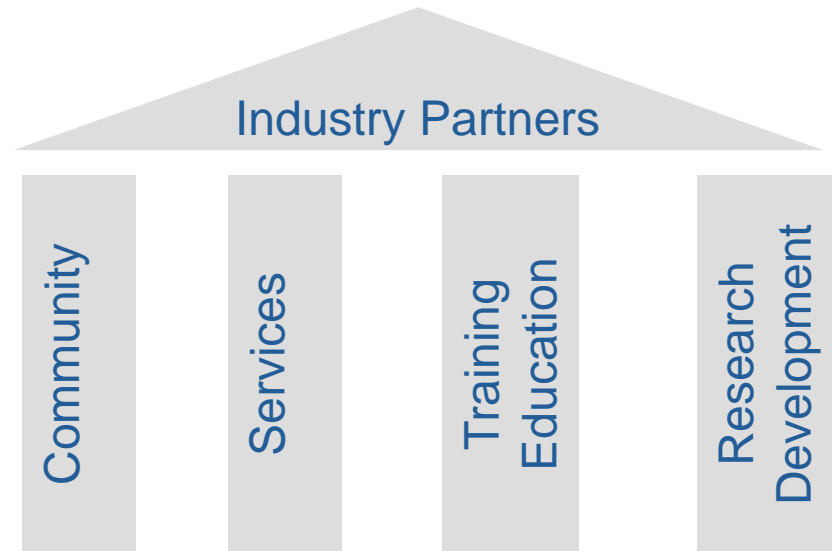
Industry Partners



Source: www.yousearch.co



RWTH Aachen Campus



AM Facilities & Infrastructure

RWTH Aachen Campus, Fraunhofer, FH Aachen, ...

# ACAM

## What is in for your company?



You get access to innovative knowhow, consultancy and training. We qualify your staff to meet your future challenges. In a strong partnership we develop strategic roadmaps and bring Additive Manufacturing into your production environment. Our driver is to meet your needs in the best possible way.

...for your engineers,  
designers and  
material specialists

...for your machine  
operators



**Access to  
Training,  
Education,  
Consultancy  
and innovative  
Knowhow...**



... and for your  
strategic decision  
makers

# Partner Benefits

## Aachen Center for Additive Manufacturing



### Community

Physical and virtual networking and exchange in the ACAM Community

Annual ACAM report and AM Technology Monitoring and Review

Marketing and Website Package



### Services and Contractual R & D

Bilateral Research and Development projects

Prototype manufacturing along the process chain

Strategy, market and technology oriented consulting projects

### Consortial R & D



Decision on ACAM R&D roadmap and research topics

Annual ACAM R&D projects on agreed topics (shared IP)

Joint acquisition and realization of public funded research projects (shared IP)

### Training and Education



Seminars for employees and decision makers

Modules for professional further education

Inhouse seminars

# Partner Benefits

## Aachen Center for Additive Manufacturing



### Community

- Physical and virtual networking and exchange in the ACAM Community
  - Two ACAM meeting per year with networking and information exchange
  - Access to an online platform as an information basis for Additive Manufacturing with interactive feedback with all partners
  - Integration of partners in focus groups discussing actual developments and challenges (design, special materials, productivity etc.)
  - Showcasing actual developments and highlights
  - Bringing renowned experts presenting Best Practice Solutions
- Annual ACAM Report
  - Summary of the ACAM activities and overview on consortia projects
- AM Technology Monitoring and Review
  - Extensive and detailed review on AM technologies according to your special needs
- Marketing and Website Package
  - Being visible with your logo as partner of ACAM
  - We bring your logo to all of our events



# Partner Benefits

## Aachen Center for Additive Manufacturing



### Consortial R & D

- Decision on ACAM R&D roadmap and research topics
  - All partners can nominate topics for the ACAM R&D roadmap and for research topics
  - Business Partners will decide the ACAM R&D roadmap and research topics
- Annual ACAM R&D projects on agreed topics (shared IP)
  - Topics are being agreed at annual meetings
  - Partners can participate in selected projects
- Joint acquisition and realization of public funded research projects (shared IP)
  - Information on actual calls and on opportunities to join pending project proposals
  - Support on building consortia and elaborating proposals
  - Procurement of related research projects

# Partner Benefits

## Aachen Center for Additive Manufacturing



### Services and Contractual R & D

- **Bilateral Research and Development projects**
  - Fast and confidential realization of bilateral development projects in cooperation with the Aachen research facilities
- **Prototype manufacturing along the process chain in cooperation with the Aachen research facilities:**
  - Qualification of new materials, metallography, testing of samples
  - Feasibility studies for new materials, designs, process chain layout
  - Calibration and qualification of AM systems
  - ...and many more
- **Strategy, market and technology oriented consulting projects**
  - On-site consultancy to facilitate entry, adoption and use of AM in your companies

# Partner Benefits

## Aachen Center for Additive Manufacturing



### Training And Education

- Seminars for employees and decision makers
  - One or two day seminars for fast adoption of specific topics
  - From Technology to Design, from Management to Shop Floor
- Modules for professional further education
  - Multi week-long courses for deep knowledge on university level
  - Certificates for personnel development
- Inhouse seminars
  - Giving your employees the chance to gain sophisticated knowledge at home

# Partner Benefits

## Aachen Center for Additive Manufacturing

**BASIS  
PARTNER**  
12 k€ / a

**BUSINESS  
PARTNER**  
40 k€ / a

**COOPERATION  
PARTNER**  
Adaptable fee



### Voucher

Total value of included ACAM vouchers

6 k€

18 k€

€



### Community

Physical and virtual networking and exchange in the ACAM Community

✓

✓

Annual ACAM report

✓

AM Technology Monitoring and Review

€

€

Marketing and Website Package

-

€



### Consortial R & D

Decision on ACAM R&D roadmap and research topics

-

✓

-

Annual ACAM R&D projects on agreed topics

Voucher  


Voucher  


€

Joint acquisition and realization of consortial research projects

✓

✓

✓



### Services / Contractual R & D

Bilateral R&D projects

€



€

Prototype manufacturing along the process chain

Strategy, market and technology oriented consulting projects

€



### Training and Education

Seminars for employees and decision makers

€

%

€

Modules for professional further education

Inhouse seminars

✓

# ACAM - Important Dates



**Foundation**  
ACAM GmbH iG



June 2015

**Verification of service offer with partners**



July - August



**Foundation Meeting and Networking**



September, 23<sup>rd</sup> 2015

**Fraunhofer**  
ILT

**Fraunhofer**  
IPT

**FH AACHEN**  
UNIVERSITY OF APPLIED SCIENCES

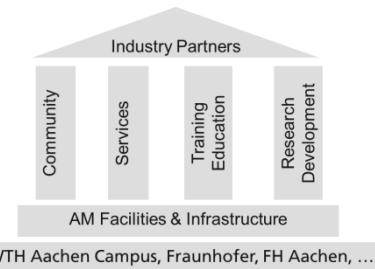
**LLT** Chair for Laser Technology | **RWTH AACHEN UNIVERSITY**

**KEX.**  
Knowledge Exchange

**WZL**  
**RWTH AACHEN**

**PEM** Chair of Production Engineering of E-Mobility Components | **RWTH AACHEN UNIVERSITY**

**We would appreciate to introduce ACAM in detail to decision makers at your company side or here in Aachen!**



Cluster Photonik



Partner Benefits Aachen Center for Additive Manufacturing		BASIS PARTNER 10 M€ / a	BUSINESS PARTNER 40 M€ / a	COOPERATION PARTNER Adaptative fee
Voucher	Total value of included ACAM vouchers	6 k€	18 k€	€
Community	Physical and virtual networking and exchange in the ACAM Community	✓		✓
	Annual ACAM report		✓	
	AM Technology Monitoring and Review	€		€
	Marketing and Website Package	-		€
Consortial R & D	Decision on ACAM R&D roadmap and research topics	-	✓	-
	Annual ACAM R&D projects on agreed topics	€	€	€
	Joint acquisition and realization of consortial research projects	✓	✓	✓
Services / Contractual R & D	Bilateral Research and Development projects		€	€
	Prototype manufacturing along the process chain	€	€	
	Strategy, market and technology oriented consulting projects		€	
Training and Education	Seminars for employees and decision makers	€	%	€
	Modules for professional further education		✓	
	Inhouse seminars			€



# ACAM

## Foundation Meeting and Networking



Foundation Meeting and Networking

September, 23<sup>rd</sup> 2015

### Targets and Fees

- Latest Additive Manufacturing information
  - Keynote experts sharing their knowledge
  - More than 60 consortium study members coming together
- Large Industry and Research Exhibition
  - AM System and Technology providers
  - Research and Development Institutions
  - Design and Business experts
- First steps towards an AM R&D roadmap
  - Innovation and research workshops
  - Special topics decided by the participants
- Fee for participation: 200 € p.p.\*
  - \*Participation included for partners of the consortium studies
  - \*Charge will be credited onto the first ACAM partnership fee

### Agenda

09:00

**Roadmapping Session  
for Partners of the Consortium Studies**

RWTH Aachen Campus  
9:00-11:30

12:00

**Joint ACAM Lunch  
Networking in the Industry Exhibition**

RWTH Aachen Campus  
11:30-13:30

14:00

**ACAM Introduction  
Roadmapping**

RWTH Aachen Campus  
13:30-16:30

17:00

**Networking Dinner**

With short presentations and guided tours through the  
Laboratories of ILT, IPT, WZL

Fraunhofer ILT  
18:30- 21:00

# Further Information - only relevant for Members of the Consortium Studies One and Two



**Sep. 22nd**

**09:00**

**11:00**

**13:00**

**15:00**

**17:00**

**19:00**

**Consortium Study AM I**

**Final Report**

Aachen,  
Campus-Boulevard 57

9:30-16:30

**Networking Dinner for  
Partners of the  
Consortium Studies**

RWTH Aachen Campus  
17:00-19:00 Uhr

**Sep. 23rd**

**09:00**

**11:30**

**13:30**

**18:30**

**21:00**

**Roadmapping Session  
for Partners of the  
Consortium Studies**

RWTH Aachen Campus  
9:00-11:30

**Joint ACAM Lunch  
Networking at the Industry  
Exhibition**

RWTH Aachen Campus  
11:30-13:30

**ACAM Introduction and  
Roadmapping**

RWTH Aachen Campus  
13:30-16:30

**Networking Dinner**

With short presentations and guided  
tours through the laboratories of ILT,  
IPT, WZL

Fraunhofer ILT  
18:30- 21:00

**Sep. 24th**

**09:00**

**11:00**

**13:00**

**16:00**

**Consortium Study AM II**

**Second Report**

Aachen,  
Campus-Boulevard 57

8:30-16:00

# Contact Information



For any feedback, ideas, questions concerning the ACAM Aachen Center for Additive Manufacturing GmbH please contact:



## Dr. Johannes Witzel

CEO ACAM GmbH  
j.witzel@acam-aachen.de  
Phone: +49 241 8906 8686

Fraunhofer ILT  
johannes.witzel@ilt.fraunhofer.de  
Phone: +49 241 8906 535



## Dr. Kristian Arntz

CEO ACAM GmbH  
k.arntz@acam-aachen.de  
Phone: +49 241 8906 8687

Fraunhofer IPT  
kristian.arntz@ipt.fraunhofer.de  
Phone: +49 241 8904 121