11-12 October 2017 TU Munich/Germany



# **Additive Manufacturing** Industrialization, Applications, **Business Models** With Top Speakers from Aerospace, Airbus, Audi, Automotive, BASF, BMW, Concept Laser, Energy, EOS, Linde, Lufthansa, Medical and Academia including ACAM, MTU, Premium Aerotec, RWTH Aachen, Siemens, Skoltech, Trumpf, TU Munich, TÜV Süd and more





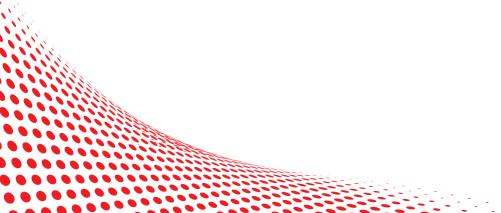
# The inaugural convention of leading AM experts

Additive Manufacturing (AM) is the most physical expression of the digital industrial revolution and a pillar of next-generation manufacturing technologies that will drive the factories of the future.

As the AM industry grows, both opportunities and challenges become clearer. As the first conference of its kind, the Munich Technology Conference brings together leading stakeholders of the AM technology to discuss trends, innovations, processes and where the industry is heading. It offers a platform for leading experts from the corporate, academic and political sectors to discuss the latest developments in AM industrialization, applications and business models. Participants get the opportunity to interact with and learn from pioneering practitioners.

This is an invitation only event. However, there are a limited number of seats available to interested applicants. Applications can be made under:

munichtechconference.com



# **Topics of discussion**

# At the conference, leading experts from the corporate, academic and political sectors will discuss key trends and developments in AM.

- What are the most exciting AM applications in different industries?
- How will AM change industry business models in the next 10 years?
- What does it take for the breakthrough of AM as serious serial production technology?
- How can we drive the industrialization of AM?
- How can public-private partnership accelerate AM as a mainstream manufacturing technology?
- How can technology support manufacturing in developed countries?



Additively manufactured distributor housing

# **Event Program**

Day 1	11th	October	2017
-------	------	---------	------

<b>Block A</b> 12:30–12:40	Dr. Melinda Crane		
<b>Block B</b> 12:40–13:50	The AM Revolution: Hype, Threat or an Opportunity to change the World?		
	Quo vadis Additive Manufacturing? AM is currently raising expectations – it enables high-tech companies to increase their competitiveness, it helps developed countries to secure jobs and it creates new business models that will shift whole industries. Exalted representatives of politics, industry and science illuminate the relevance, possibilities and barriers of additive manufacturing on the way to a mainstream technology.		
	Industry: Prof. Michael Süss (Oerlikon Group) Politics: Ms Ilse Aigner (Bavarian State Ministery) Science: Prof. Horst Wildemann (TU Munich)		
	Moderation: Dr. Melinda Crane		
13:50–14:15	Break/Networking		
Block C	AM Technology: What's new?		
14:15–15:50	During the last years, huge improvements in hardware, software and materials of Additive Manufacturing have been achieved. Experts will give insights into the most advanced solutions and highlight the current possibilities, challenges and limitations. In addition, they will risk a glance into the future.		
	Hardware: Dr. Hans Langer (EOS) Software: Dr. Karsten Heuser, (Siemens) Material: Dr. Justin Cheney (Scoperta) Material: DrIng. Sebastian Schillo (BASF) Gas: DrIng. Christian Bruch (Linde)		
	Moderation: Dr. Melinda Crane and Prof. Iskander Akhatov (Skoltech)		
15:50–16:20	Break/Networking		



### Block D

### **AM Markets: New Industrial Frontiers**

16:20-17:45

Additive Manufacturing is used across industry borders, but with different scope. Aerospace, automotive, energy and medical have various applications with varying requirements and challenges. How versatile AM already fulfills this diversity, which cross-industry and specific challenges have to be overcome and how the different industries could profit from each other will be discussed.

Aero: Michael Schreyögg (MTU Engines)
Automotive: Dr. Alexander Susanek (BMW)

Medical: Eric Lohrer (Lima)

Aero: Dr. Thomas Ehm (Premium AEROTEC)

Moderation: Dr. Melinda Crane and Dr. Johannes Witzel (ACAM Aachen)

## **Block E** 17:45–18:15

### **AM Value Creation: Integrated Solution Provider**

Solution providers need to combine material, software, engineering and service competences to produce high performance components. How can individual powder, single components, small services, mass production and spare parts be manufactured in the same factory and therefore create significant value for the customers without cannibalizing their business models? Dr. Fischer and Florian Mauerer are going to talk about Oerlikon's vision of AM.

**Dr. Roland Fischer**, CEO Oerlikon Group **Florian Mauerer**, Head AM Oerlikon

Moderation: Dr. Melinda Crane

18:15-19:15

Transfer to dinner venue

## Block F

## Dinner Speech

19:15-19:30

Prof. Michael Süss Prof. Wolfgang Herrmann

subject to change

## **Event Program**

**Day 2** 12th October 2017

**Block G** 08:15–08:20

Welcome

Dr. Melinda Crane

**Block H** 08:20-09:00

**AM Deep Dive: Specific Case Studies** 

Based on current applications the potential of additive manufacturing will be shown on a detailed level. Aerospace, hardware manufacturers, space, medical and automotive will present outstanding solutions, the challenges they faced, the limits they had to face and how to overcome this borders.

Aero: Christian Carjell (Lufthansa Technik)
Hardware: Tobias Baur (TRUMPF GmbH)
Space: Frank Mouriaux (RUAG Space)
Automotive: Wilfried Vette (Audi)
Medical: Dr. Erich Rembeck (ECOM)

Moderation: Dr. Melinda Crane

**Block I** 09:00–10:15

Manufacturing Re-imagined: AM's Impact on traditional Business Models

The breakthrough of Additive Manufacturing will have a tremendous impact on current business models. Experts will show up-to-date influences, their consequences and discuss future adaptions within different industries.

Aero: Paul Eremenko (Airbus)

Fnergy: Alf Henryk Wulf (GF Po

Energy: Alf Henryk Wulf (GE Power) Hardware: Frank Herzog (Concept Laser)

Moderation: Dr. Melinda Crane and Prof. Michael Zäh (TU München)

unicn		
rence	m t c	
er 2017	III t C	
rmany		
-		

10:15–11:00	Break/Networking		
<b>Block J</b> 11:00–12:30	From Fiction to Factory – Success Factors enabling AM as a Serial Production Technology?		
	What does it need that AM manages the breakthrough? Leading international specialists of industry, politics, science and certification authority will discuss the requirements to establish Additive Manufacturing as a serial production technology. Diverse opinions along the AM supply chain guarantee exciting insights and show us, what still has to be done.		
	Industry: Mohammad Ehteshami (GE) Politics: Ralph Resnick (America Makes) Science: Prof. Johannes Schleifenbaum (RWTH Aachen) Quality: Prof. Axel Stepken (TÜV Süd) Service Provider: Florian Mauerer (OC Oerlikon)		
	Moderation: Dr. Melinda Crane and Prof. lain Todd (Univ Sheffield)		
<b>Block K</b> 12:30–12:50	AM as a driver to improve the state of the world?		
	The World Economic Forum attested additive manufacturing a high potential to save the world and at the same to be a disruptive force. Dr. Rösler is going to explain if, in which segments and how additive manufacturing is able to improve our world today and in the near future.		
	Dr. Philipp Rösler		
	Moderation: Prof. Michael Süss		
<b>Block L</b> 12:50–13:00	Conference wrap-up		
	Prof. Michael Süss		
	Moderation: Dr. Melinda Crane		

## **Speakers**

# With top speakers from aerospace, automotive, energy, medical industries, politics and academia.



Ms. Ilse Aigner
Bavarian State Minister of Economic
Affairs and Media, Energy and
Technology



**Prof. Iskander Akhatov** Professor Skolkovo Institute of Science and Technology



Mr. Tobias Baur Head of Additive Manufacturing TRUMPF GmbH + Co. KG



**Dr.-Ing. Christian Bruch**Member of the Executive Board
Linde AG



**Dr. Melinda Crane**Journalist and Moderator



**Dr. Thomas Ehm**Chief Executive Officer
Premium AEROTEC GmbH



**Mr. Mohammad Ehteshami** Vice President & General Manager GE Additive



**Dr. Roland Fischer**Chief Executive Officer
Oerlikon Group



Univ.-Prof. Dr. Dr. h.c. mult. Wolfgang A. Herrmann Professor TU München



Mr. Frank Herzog Chairman & Chief Executive Officer Concept Laser GmbH



**Dr. Karsten Heuser** Competence Center AM Siemens AG



**Dr. Hans J. Langer** Executive Chairman EOS Group



**Mr. Eric Lohrer** Board Member Lima



**Mr. Florian Mauerer** Head of BU Additive Manufacturing Oerlikon Group



**Mr. Paul Eremenko**Chief Technology Officer
Airbus



**Mr. Franck Mouriaux** General Manager Structures RUAG Schweiz AG

## **Speakers**



**Dr. med. Erich Rembeck** Orthopedist ECOM



**Mr. Ralph Resnick**Founding Director
America Makes



**Dr. Philipp Rösler**Member of the Managing Board
World Economic Forum



**Dr.-Ing. Sebastian Schillo**Team Leader Fine Mechanics
BASE SE



**Prof. Dr.-Ing. Johannes H. Schleifenbaum**Professor
RWTH Aachen



**Mr. Michael Schreyögg**Chief Program Officer
MTU Aero Engines



**MD Dr. Bernhard Schwab**Director
Bavarian State Ministry of Economic
Affairs and Media, Energy
and Technology



**Prof. Dr.-Ing. Axel Stepken**Chief Executive Officer
TÜV SÜD



**Prof. Dr. Michael Süß** Chairman Oerlikon Group



**Dr. Alexander Susanek** Head of Production Plant 0 BMW Group



**Prof. lain Todd**Director of Future Manufacturing Hub,
Professor of Metallurgy
The University of Sheffield



Univ.-Prof. Dr. Dr. h.c. mult. Horst Wildemann Professor TU München



**Dr.-Ing. Johannes Witzel**Chief Executive Officer
ACAM Aachen Center for Additive
Manufacturing



**Mr. Alf Henryk Wulf**Chief Executive Officer
GE Power AG



**Prof. Dr.-Ing. Michael Zäh** Professor TU München

Mr. Christian Carjell Project Manager AM Lufthansa Technik AG

**Mr. Wilfried Vette**Head of Toolmaking Plant Ingolstadt
Audi AG







Technical University of Munich Audimax, Arcisstr. 21 80333 München, Germany

## Get there by public transportation

- ☐ Train: München Hauptbahnhof (+U2)
- U Underground (U2): Theresienstraße
- Tram (27/28): Pinakothek
- Bus (100): Technische Universität
- There are limited, paid parking options in Theresienstraße and Luisenstraße.



#### **Audimax**

The two-day conference will take place at the Audimax of the Technical University of Munich.

#### Munich

Located in the south of Germany, the Bavarian capital of Munich is home to 1.5 million people and numerous leading industry and service companies, as well as the world-renowned Technical University of Munich. Visitors from across the globe are attracted by cultural highlights such as the annual Oktoberfest, the Deutsches Museum – the world's largest museum of science and technology – the many galleries and the Bavarian way-of-life.

