

**3rd munich
technology conference**
8–10 October 2019
TU Munich/Germany



Program

#mtc3 #industrializeAM

Additive Manufacturing Accelerating the Industrialization A Reality Check

With **Top
Speakers** from
the industry,
academic and
political sectors.

munichtechconference.com

oerlikon



McKinsey
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SIEMENS
Ingenuity for life



Topics

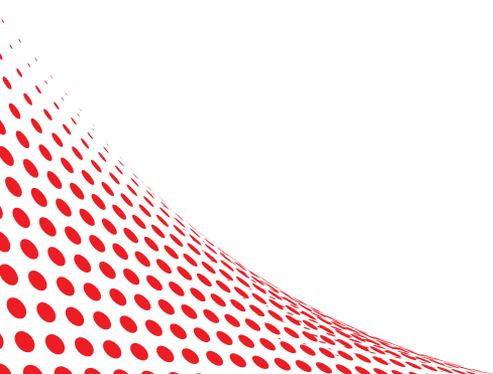
Additive manufacturing (AM) is driving the next industrial revolution. The more industries embrace the potential of 3D printing in manufacturing, the more opportunity will be for change.

The third annual Munich Technology Conference on additive manufacturing (MTC3) will focus on the reality of industrialization. Industry leaders, scientists, engineers, equipment manufacturers, educators and government officials will participate in discussions aimed at understanding the challenges and advancing the industry. A new pre-conference networking event offers a platform for 3D startups to pitch their ideas.

Other questions that will be addressed at the conference:

- What is the status of industrialization? What have we achieved?
- Why are some industries faster in adopting AM than others, and what can we learn from them?
- What success stories have there been so far, and what can we learn from them to accelerate the industrialization of AM?

App: mtc-eventapp.com



Program

Day 1 8th October 2019

Startup event

The new pre-conference networking event offers 3D startups a platform to pitch their ideas and corporations to connect with new, disruptive players in the AM industry. Participants will receive industry insights, such as state-of-the-art trends, and have the opportunity to exchange ideas, start new ventures and form a local community.

18:00	Arrival	Registration of participants & networking
18:30	Introduction	Dr. Melinda Crane & Sven Krause
18:40	Welcome	Opening Speech, TUM, by Prof. Thomas Hofmann
18:50	Welcome	Opening Speech, UnternehmerTUM, by Prof. Dr. Helmut Schönenberger
18:55	Welcome	Opening Speech, MTC3, by Dr. Roland Fischer
19:00	Keynote	Startups in AM – where do they come from and what makes them successful? AM Ventures, by Arno Held
19:15	Startup-Pitches	8 Startups
20:45	Stand-up	Chance for participants to make a request or ask questions
20:55	Formnext Prize	Formnext, 3DPC, MTC
21:00	Networking & Startup Area	Network. Snacks and drinks.



Speakers startup event

Day 1 8th October 2019



Chris Eonta
MolyWorks Materials Corporation
Founder and CEO



Felix Ewald
DyeMansion GmbH
CEO & Co-Founder



Dr. Roland Fischer
Oerlikon Group
CEO



Josef Fleischmann
Isar Aerospace Technologies GmbH
COO



Dr. Yves Hagedorn
Aconity 3D
Managing Director



Arno Held
AM Ventures
Chief Venture Officer



Prof. Thomas Hofmann
TUM
President



Matthias Kaiser
Exponential Technologies
CEO



Dr. Alejandro Ojeda
UrbanAlps AG
Co-Founder and CEO



Florian Reichle
Trinckle
Co-Founder & CEO



Prof. Dr. Helmut Schönenberger
UnternehmerTUM GmbH
CEO



Dr. Oliver Trinchera
Kinexon
Founder & CEO

Conference Topics

Day 2

9th October 2019

Block A

09:00

Welcome

Dr. Melinda Crane

Prof. Nikolaus A. Adams (TU Munich/Chair of Aerodynamics and Flow Mechanics, Dean of the Faculty of Mechanical Engineering)

Prof. Dr. Michael Süß (Oerlikon Group, Chairman)

Block B

09:30

Collaboration

The solution to industrialization

The industrialization of a technology can never be done alone. Many challenges need to be overcome along and beyond the value chain: Industry, politics and science have to work closely together. The aim of this panel is to clarify the status of collaboration in the development of AM toward broad applications in industry. Which good examples are there – and in which sub-areas of AM? Where are closer partnerships needed?

Speakers:

Dr. Roland Fischer (Oerlikon Group, CEO)

Dr. Jan Michael Mrosik (Siemens, COO Division Digital Industries)

Dr. Christoph Schmitz (McKinsey, Senior Partner)

Holger Lindner (TÜV SÜD, CEO, Product Service)

Francisco Betti (World Economic Forum, Head of Advanced Manufacturing Industry)

Todd Skare (Linde, CTO)

Moderation: Dr. Melinda Crane

10:15–10:45

Break/Networking

Block C

10:45

Driving Industries

Focus Aviation

Which markets drive the demand of AM in its various stages of maturity? This year, we look at an industry that is already taking advantage of many of the benefits of AM: Aviation. Case studies will be presented to learn more about the market assessment from the top players in the industry: What role does AM already play today? What success stories have there been so far, and what can we learn from them to accelerate the serial use of AM?

Speakers:

Dr. Remedios Carmona (Airbus, Additive Manufacturing Roadmap Owner)

Dr. Melissa E. Orme (Boeing, Vice President Boeing Additive Manufacturing)

Dr. Anne Thenaisie (SAFRAN SAM, Managing Director Safran Additive Manufacturing)

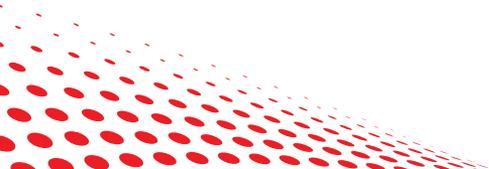
Paula J. Hay (Collins Aerospace, Executive Director, Additive Design and Manufacturing)

J.D. McFarlan III (Lockheed Martin Aeronautics, Vice President Functional Engineering)

Moderation: Dr. Melinda Crane

12:00–13:00

Lunch/Networking



Conference Topics

Day 2

9th October 2019

Block D

13:00

Digital Manufacturing

Becoming part of the digital factory

Since Additive Manufacturing is the first manufacturing process fully based on digitalization, its further development depends to a large extent on improvements of integrated and seamless software and digital systems. This panel discusses the current state and next steps in software and system design, led by three companies that are shaping the future of the industry – Siemens, HP and BMW – with their unique perspective on the digital AM factory of the future as well as digital manufacturing.

Speakers:

Dr. Oliver Trinchera (Kinexon, Founder & CEO)

Dr. Karsten Heuser (Siemens Digital Industries, VP Additive Manufacturing)

Philipp Jung (HP Inc., SVP and Global Head of Customer Success, 3D Printing and Digital Manufacturing)

Dr.-Ing. Dominik Rietzel (BMW Group, Head of Additive Manufacturing – Non Metal)

Moderation: Dr. Melinda Crane

Block E

13:45

Materials

The power of powder

Materials are critical building blocks for successfully printing a product. With AM, the importance of metal powder is growing enormously. The development of new alloys, in particular, increases the possibilities that AM has through design freedom. In this session you will learn news about alloy development, new technical solutions in powder production as well as which materials are most in demand today and in the future.

Speakers:

Dr. Justin Cheney (Scoperta, R&D Manager Oerlikon Metco)

Henrik Franz (ALD Vacuum Technologies GmbH, Head of R&D Vacuum Metallurgy and Process Engineering Division)

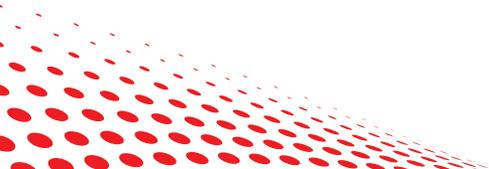
Prof. Dr. Peter Mayr (TU Munich, Professor of Materials Engineering of Additive Manufacturing)

Pierre Forêt (Linde, Senior Expert Additive Manufacturing)

Moderation: Dr. Melinda Crane

14:30–15:00

Break/Networking



Conference Topics

Day 2

9th October 2019

Block F

15:00

Hardware

Faster, bigger, smarter?

In addition to software and metal powder, hardware is the third core component for metal-based AM. The various printing techniques and the interaction of ancillary equipment offer decisive potential for increasing volumes, part dimensions and quality. The discussion will focus on a reality check: Where do we stand today in hardware development with a view to the industrialization of AM?

Speakers:

René Kreissl (Trumpf GmbH & Co. KG, Technical Director R&D AM)

Dr. Hans J. Langer (EOS Group, CEO & Chairman)

Mathias Wolpiansky (DMG Mori AG, Chairman)

Prof. Geoff McFarland (Renishaw plc, Director of Group Technology)

Chris Schuppe (GE Additive, General Manager – Engineering)

Co-Moderation:

Univ.-Prof. Dr.-Ing. Dipl.Wirt.-Ing. Johannes Henrich Schleifenbaum
(Head of Chair for Digital Additive Production DAP)

Moderation: Dr. Melinda Crane

Block G

16:00

Post-Processing

Innovations in printed parts treatment

Pre- and post-processing workflows are of great importance for the industrialization of AM. In particular, the treatment of the finished printed parts is decisive for their further use. Post-processing is where all requirements come together: Where does post-processing stand today and what progress can be expected in the near future?

Speakers:

Dr. Sven Hicken (Oerlikon AM, Head of BU AM)

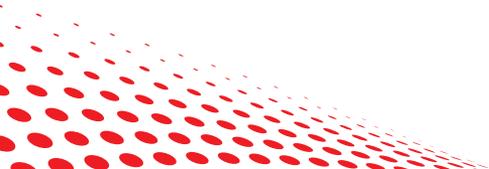
Gianluca Pagani (GF Precicast Additive SA, Production Manager)

Dr. habil. Wolfgang Hansal (Hirtenberger Engineered Surface GmbH,
Managing Director)

Moderation: Dr. Melinda Crane

16:30–16:50

Break/Networking



Conference Topics

Day 2

9th October 2019

Block H

16:50

Norms & Standards

Getting a common framework

A young technology like AM needs fixed standards and norms for its industrialization. What initiatives have been taken recently in this regard? What has been achieved and which norms and standards are still needed to fully establish AM in industry? This panel clarifies many of these questions and gives an overview of the status quo.

Speakers:

Dr.-Ing. Christian Seidel (Fraunhofer Research Institution for Casting, Composite and Processing Technology IGCV, Head of AM and Director for Strategy and Institute Development)

Gregor Reischle (TÜV SÜD Product Services GmbH, Head of Additive Manufacturing)

Gero Corman (Volkswagen Group, Head of 3D-Printing/Additive Manufacturing)

Moderation: Dr. Melinda Crane

Block I

17:20

Startups

Fresh ideas

As a young technology, AM lives from fresh ideas for their application and further development. In this session, some startups will introduce themselves with their exciting ideas and show what potential they have discovered in the wide field of the AM market. An inspiring round!

Speakers:

Tobias Kuhl (UnternehmerTUM GmbH, Head of Operations at Xpreneurs)

Dipl.-Ing. Bruno Bernard (BTOV Partners, Venture Partner)

Aleksander Cizsek (3YOURMIND GmbH, Founder and CEO)

Lin Sebastian Kayser (Hyperganic Technologies AG, CEO)

Michael Fuller (Conflux Technology, CEO)

Dr. Jacob Nuechterlein (Elementum3D, President)

Moderation: Dr. Melinda Crane

Block J

18:10

Wrap up

Dr. Melinda Crane

Dr. Roland Fischer (Oerlikon Group, CEO)

18:30–19:00

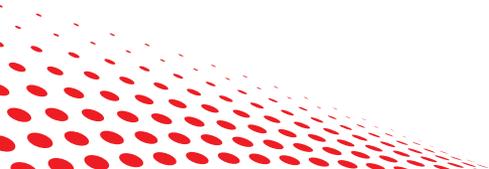
Transfer to dinner venue (invited guests only)

Block K

19:00

Dinner Speech

Prof. Dr. Michael Süß (Oerlikon Group, Chairman)



Workshops

Day 3

10th October 2019

Doors open

09:00

Grouping

10:00

10:30–12:30

Oerlikon Service

13:30–15:30

Reality Check on today's metal AM Market

What has been achieved, what are the current and future customer requirements?

TU Munich

Quo Vadis Industrializing Additive Manufacturing?

Major Challenges and Possible Solutions – in cooperation with Fraunhofer IGCV

Linde

AM in 2025

Influencing future AM processes with Gas Molecules

Oerlikon Material

Developing Metal alloys for AM

Challenges and Opportunities

TÜV SÜD

AM standards for industrial grade conformity

Status quo of Hardware, Materials Processes, Manufacturing sides and Personnel qualification schemes and standards.

Siemens

Design your industrialized AM Factory

How should the integrated Siemens/OEM chain look going forward?

General Electric

Waving or drowning...

What pain points do companies moving to full-scale additive production face?

McKinsey

Accelerating industrial adoption of additive manufacturing

What is the next frontier for Original Equipment Manufacturers (OEMs) and AM suppliers to develop customer offerings, integrate technologies and build business models that will advance the adoption of AM?

End 15:30

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McKinsey
& Company

SIEMENS
Ingenuity for life



Speakers Conference

Day 2 9th October 2019

With top speakers from specific markets, academia and politics.



Prof. Nikolaus A. Adams
TU Munich/Chair of Aerodynamics
and Flow Mechanics
Dean of the Faculty of Mechanical
Engineering



Michael Fuller
Conflux Technology
CEO



Dipl.-Ing. Bruno Bernard
BTOV Partners
Venture Partner



Dr. habil. Wolfgang Hansal
Hirtenberger Engineered
Surfaces GmbH
Managing Director



Francisco Betti
World Economic Forum
Head of Advanced Manufacturing
Industry



Paula J. Hay
Collins Aerospace
Executive Director, Additive Design
and Manufacturing



Dr. Remedios Carmona
Airbus
Additive Manufacturing Roadmap
Owner



Dr. Karsten Heuser
Siemens Digital Industries
VP Additive Manufacturing



Dr. Justin Cheney
Oerlikon, Scoperta
R&D Manager Oerlikon Metco



Dr. Sven Hicken
Oerlikon AM
Head of BU AM



Aleksander Cizsek
3YOURMIND GmbH
Founder and CEO



Philipp Jung
HP Inc.
SVP and Global Head of Customer
Success, 3D Printing and Digital
Manufacturing



Gero Corman
Volkswagen Group
Head of 3D-Printing/
Additive Manufacturing



Lin Sebastian Kayser
Hyperganic Technologies AG
CEO



Dr. Roland Fischer
Oerlikon Group
CEO



René Kreissl
Trumpf GmbH+CO. KG
Technical Director R&D
AM



Pierre Forêt
Linde
Senior Expert Additive
Manufacturing



Tobias Kuhl
UnternehmerTUM GmbH
Head of Operations at Xpreneurs



Henrik Franz
ALD Vacuum Technologies GmbH
Head of R&D Vacuum Metallurgy
and Process Engineering Division



Dr. Hans J. Langer
EOS Group
CEO & Chairman



Holger Lindner
TÜV SÜD
CEO, Product Service



Prof. Dr. Peter Mayr
TU Munich
Professor of Materials Engineering of
Additive Manufacturing



J.D. McFarlan III
Lockheed Martin Aeronautics
Vice President Functional Engineering



Prof. Geoff McFarland
Ranishaw plc
Director of Group Technology



Dr. Jan Michael Mrosik
Siemens
COO Division Digital Industries



Dr. Jacob Nuechterlein
Elementum 3D
President



Dr. Melissa E. Orme
Boeing
Vice President Boeing
Additive Manufacturing



Gianluca Pagani
GF Precicast Additive SA
Production Manager



Gregor Reischle
TÜV SÜD Product Services GmbH
Head of Additive Manufacturing



Dr.-Ing. Dominik Rietzel
BMW Group
Head of Additive Manufacturing –
Non Metal



**Univ.-Prof. Dr.-Ing.
Dipl.Wirt.-Ing.
Johannes Henrich
Schleifenbaum**
RWTH Aachen University
Head of Chair for Digital Additive
Production DAP



Dr. Christoph Schmitz
McKinsey
Senior Partner



Chris Schuppe
GE Additive
General Manager – Engineering



Dr. Ing. Christian Seidel
Fraunhofer Research Institution for
Casting, Composite and Processing
Technology IGCV, Head of AM
and Director for Strategy and Institute
Development



Todd Skare
Linde
CTO



Prof. Dr. Michael Süß
Oerlikon Group
Chairman



Dr. Anne Thenaisie
SAFRAN SAM
Managing Director Safran Additive
Manufacturing



Dr. Oliver Trinchera
Kinexon
Founder & CEO



Mathias Wolpiansky
DMG Mori AG
Chairman

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Location



Contact

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

Get there by public transportation

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

The startup event and the two-day conference will take place at the Technical University of Munich.

