

# ECOSYSTEM, COOPERATION, DATA

Additive Manufacturing's role in industrial production continues to evolve and to attract more advocates. In October, more than 3,000 participants gathered on-site and online to take part in the 3-day Advanced Manufacturing Technology Conference in Aachen.

C-level executives and experts from various industrial sectors

and research/education institutes concurred that AM's ability to transform manufacturing is no longer theoretical. The focus now is on how to scale up in ways that ensure quality, repeatability and traceability. Ecosystem, cooperation, data and value were terms discussed frequently, and while players in today's AM world seek ways to scale up and define value, researchers

continue to push the bounds of what is possible.

The Conference was organized by Oerlikon, co-hosted by the RWTH Aachen University and the TUM Technical University of Munich, and co-sponsored by 32 partners.

Read the full article and learn more about the AMTC on [www.amtc.community](http://www.amtc.community)

"Has Covid-19 killed off industry interest in AM? Absolutely not! We've seen a slowdown in the last 2 years, but you can see very clearly from the panel discussions and sessions that companies remain committed to investing to accelerate AM adoption and innovation."

**Cindy Koh,**  
Singapore Economic  
Development Board

"I think we are about to enter a new stage in the industrialization of AM. A conference like this, driven by the industry, shows the true commitment among leading companies. They are serious about using AM for industrial production, and that requires industrializing this technology fully and on a wide scale."

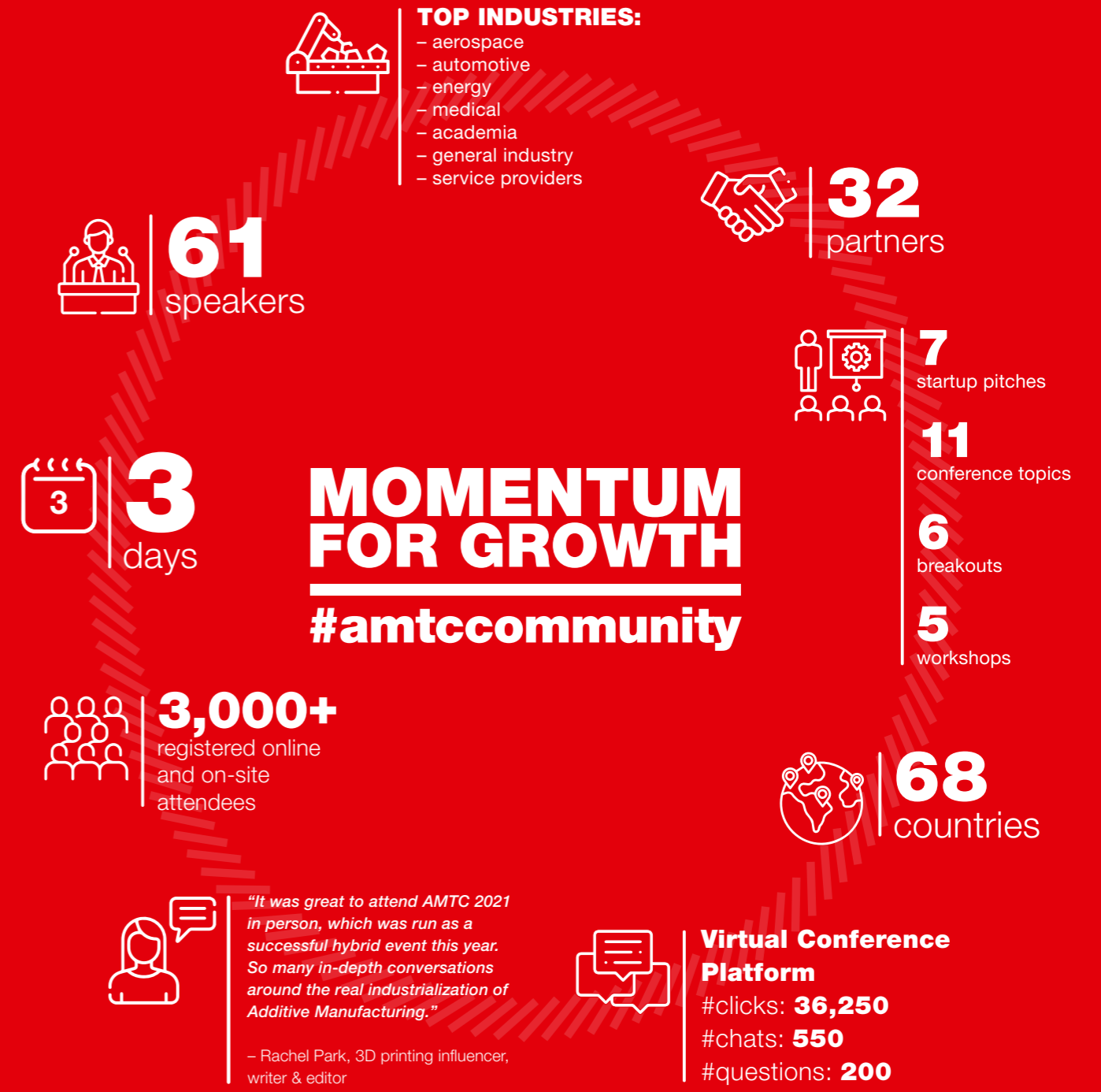
**Klas Boivie,**  
SINTEF Manufacturing

"Digitization and data hold great potential for the AM industry. I see two areas in particular: On the one hand, companies could and should use data to plan their production. On the other hand, it's about using data during production, for example, to understand exactly what's happening during the process, why one part turns out well but another doesn't. Business intelligence and manufacturing intelligence: these are the two areas where I see great potential."

**Caroline Albert,**  
nebumind

The most influential C-level event on Additive Manufacturing

Advanced Manufacturing  
Technology Conference  
Hybrid event - Virtual // Aachen, Germany  
October 12-14, 2021



# MOMENTUM FOR GROWTH

In advance of the AMTC in Aachen, **Prof. Dr. Michael Süß**, Chairman of the Board of Directors, Oerlikon, and **Dr. Sven Hicken**, Head of Additive Manufacturing and CTO of the Surface Solutions Division at Oerlikon, published a paper on the **six elements that the AM industry will need to address** to leverage its growth momentum. Oerlikon and its partners have been particularly focused on this thesis topic from the very start. In several discussion rounds, experts commented on each thesis covered in the paper.

Download the ATMC 2021 Thesis Paper and watch the videos here:  
[www.amtc.community/amtc/en](http://www.amtc.community/amtc/en)

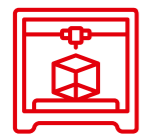
## SIX THESES THAT THE AM INDUSTRY NEEDS TO ADDRESS



Involve experienced AM specialists in the product development process as early as possible.



Adjust university curricula to better educate engineers on the potential of AM.



Further develop today's versions of the 3D printer.



Accelerate the industrialization by defining mandatory standards.



Establish a dedicated AM association to represent the interests of all members of the AM community.



Engage in comprehensive interdisciplinary collaboration with end-to-end consideration of all workflows in the AM process.

“We are implementing different courses in mechanical engineering on sustainability in production engineering and how to build up sustainable production lines. **To bring together AM and sustainability could be one key for ‘greener’ production processes.**”

**Prof. Katrin Wudy**, TU Munich



“What we look for is making sure that what we do adds value. Getting our teams incorporated into the product development teams, so that we can find those situations where additive manufacturing will add value. **We’re not just looking to optimize parts, but we’re searching for opportunities where AM can be used to optimize the whole product** — in our case, for Boeing vehicles. So it’s not about making parts, it’s about using AM to create a differentiating vehicle.”

**Dr. Melissa Orme**, Boeing

“When we talk about interdisciplinary collaboration, I think we need three things to accelerate the industrialization of AM: **a democratization of IP, so that we can work together and innovate freely; sharing of knowledge and empirical data; and connectivity.**”

**Dr. Vino Suntharakumaran**, DMG MORI Additive



Watch the videos here:



Prof. Katrin Wudy  
[youtu.be/Dua6F0MfzVA](https://youtu.be/Dua6F0MfzVA)



Dr. Melissa Orme  
[youtu.be/RQfM1vzertU](https://youtu.be/RQfM1vzertU)



Dr. Vino Suntharakumaran  
[youtu.be/XoVDxqEMKPI](https://youtu.be/XoVDxqEMKPI)



Dr. Ali Forsyth,  
Co-founder and CEO of  
Alloy Enterprises, pitches  
on the ATMC stage to  
industry executives.

# Oerlikon AM Start-up Night

Together with the venture capital companies Freigeist Capital and AM Ventures as well as the two start-up centers – UnternehmerTUM and RWTH Innovations – **Oerlikon hosted the 2<sup>nd</sup> AM Start-up Night in Aachen as part of the AMTC.**

“The Start-up Night opens up access to new ideas for founders and investors. The exchange about trends and solutions is vital in this dynamic and innovative industry. And it’s all about business matchmaking: start-ups pitch to

potential investors on stage and as part of a ‘speed dating’ event, at the highest C-level and expert level. That’s unique,” says Christian Häcker, Head of Technology and Operations and Managing Director of Oerlikon AM Europe.



## **Amnovis, Belgium: High-end products for regulated and high-tech industries**

“The timing of the event is perfect for us after our founding in June last year, right at the beginning of the pandemic in Europe. We want to innovate as a contract manufacturer and bridge the gap between innovative new AM technology and the products for quality critical applications, e. g. in the medical sector.”

**Dr. Ruben Wauthle**  
[www.amnovis.com](http://www.amnovis.com)



## **Sintratec, Switzerland: SLS 3D printing systems for prototyping, production and research**

“We got in touch with companies and people we might not have had access to otherwise, or not so easily, and gained some valuable contacts who were interested in our machines and solutions.”

**Dominik Solenicki**  
[www.sintratec.com](http://www.sintratec.com)



## **Graphmatec, Sweden: inventing, developing and selling graphene-based materials**

“The event is a great opportunity to learn about the latest trends, challenges, and competitive solutions and to expand our network. Our goal for next year: to present Graphmatec to the audience as a pitch on stage!”

**Bernhard Münzing**  
[www.graphmatec.com](http://www.graphmatec.com)



## **DyeMansion, Germany: Industrial finishing solutions for additive manufactured polymer parts**

“You won’t find such a high-quality audience at any other AM event in this concentration: of all the conversations I had, just one would have been worth coming here!”

**Felix Ewald**  
[www.dyemansion.com](http://www.dyemansion.com)