

AMTC 2022

## Industrial 3D printing success stories from three continents – AMTC 2022 presents an international overview of additive manufacturing development

**Munich, Germany and Pfäffikon, Switzerland – October 6, 2022** – The fifth annual Advanced Manufacturing Technology Conference (AMTC), which takes place on the campus of the Technical University of Munich (TUM) October 11 - 12, will be sending a signal in favor of international cooperation. More than 60 speakers from Asia, Europe and the United States will be sharing stories of the successful integration of additive manufacturing (AM) into industrial process, as well as other news pertaining to AM development. At the AMTC, policymakers and representatives from industry and research will be signing a memorandum of understanding to establish a “Bavarian AM Cluster”.

As a key technology in the age of sustainability, additive manufacturing offers ways to transform industry’s production and products so that resources are conserved, and the climate is protected. Against the backdrop of the current global crises, AMTC 2022, as one of the most important global conferences on additive manufacturing, is all about international cooperation. C-level executives from industry, decision-makers from regulatory bodies and experts from the areas of science, research and standardization will be discussing AM trends as this technology makes its way into widespread industrial use. The most important question is: what can the three major economic regions of America, Europe and Asia learn from each other?

“The global upheaval we are currently experiencing in the political systems and markets is also impacting international supply chains,” says Prof. Michael Süß, Executive Chairman of Oerlikon and founder of the AMTC. “In addition to the focus on sustainability, this is one of the primary reasons why the demand for additive manufacturing is increasing. There are more and more uses for this technology, and AM’s printing and processing technology is already quite advanced. The remaining technical and regulatory hurdles can best be overcome through cooperation. The international AM community plays a key role here.”

The AMTC kicks off on October 11 with representatives from the 3D startup scene. In their keynote speeches, Arno Held of AM Ventures and Helmut Schönenberger of UnternehmerTUM will report on current trends among international 3D startups. In a roundtable discussion, representatives from Kinexon, Seurat and Kumovis will discuss how startups can become more resilient in the face of challenging times. At the end of the day, six startups will give brief presentations on innovative ideas, including solutions for AM powders made from recycled materials, next-generation wire alloys for large-scale 3D metal printing and a new printing method that uses microwaves as an energy source, making it possible to print significantly faster and cheaper than with traditional laser melting processes. One of the brief presentations will introduce a software platform for data-based quality assurance founded on the principle of digital twinning to help avoid time-consuming component measurement.

The second day of the conference on October 12 will begin with a panel discussion and a welcome message from Ilse Aigner, President of the Bavarian State Parliament. This will be followed by a signing ceremony for a memorandum of understanding between Siemens, Audi, MTU, EOS, Linde, GE Additive and Oerlikon, as well as the TUM. The signing of this document marks the final step to the founding of a “Bavarian AM Cluster.” The association operating under this moniker seeks to overcome technical and economic challenges along the entire AM value chain through interdisciplinary cooperation between private enterprises and the scientific world. After this signal of cooperation readiness in the AM community, the conference’s discussions will begin with something new: insight into the markets of the future. With a trend study to be released at the same time as the conference, futurologist Kai

Gondlach will provide insights on the direction in which the markets relevant to AM are headed and which global trends will likely create new demand for additive manufacturing in the future.

Opportunities for cross-border cooperation: at a blue-ribbon panel discussion, participants including Francisco Betti of the World Economic Forum, Lionel Lim of the Singapore Economic Development Board, Nicholas Deliyankis of the EU Commission and Kimberly Gibson of America Makes will talk about trends in international markets relevant to additive manufacturing and explore issues of cross-border cooperation in the further development of industrial 3D printing.

The conference will be topped off by an in-depth look at actual uses of additive manufacturing: Ten “blueprint cases” demonstrating successful industrial use of additive manufacturing on three continents. Examples include Singapore’s SembCorb Marine, which uses metal 3D printing in the maintenance of ships, taking advantage of the speed of quickly printable spare parts, and ST Engineering, which uses additive manufacturing to make special structural components for aircraft. Deep Blue Space, which prints components for rocket propulsion, will describe a case from China. European examples include a project by Fraunhofer Institute IGCV with Siemens Healthineers and other partners who have reengineered the printing of a complex copper heat sink along the entire production chain by using a green laser for the first time. Oerlikon and Airbus will demonstrate the successful printing and use of ultra-light antennas for satellites. Audi will present a practical example from automotive engineering, and Siemens will show how to successfully guide an AM project through internal processes. The US-based companies Eaton, Collins Aerospace and Boeing will be presenting three additional blueprint cases.

In addition to practical applications, research news will also be shared with AMTC participants. Representatives from universities and research institutes will report on ongoing projects – including two major international EU projects that deal with technical issues that will enable 3D printing to make significant progress in the coming years. The first project relates to making additive manufacturing faster and more efficient through innovative laser beam shapes and by expanding the range of materials that can be processed. The second EU project aims to combine various AM processes and materials to adapt the material properties of a component to local needs so that the new catchphrase of “Form *and* properties follow function” will apply to future 3D printing.

#### **AMTC 2022 speakers include:**

- Ilse Aigner, President of the Bavarian State Parliament
- Oliver Hoffmann, Member of the Board of Management for Technical Development, Audi AG
- Peter Koerte, Corporate Vice President, Chief Technology & Chief Strategy Officer, Siemens AG
- Thomas Hofmann, President of TUM
- Francisco Betti, Head of Advanced Manufacturing/Member of the Executive Committee, World Economic Forum
- Lionel Lim, Vice President and Head of Technology Hardware & Equipment, Singapore Economic Development Board (EDB)
- Nicholas Deliyankis, Policy Officer, Industrial Transformation, EU Commission
- Kimberly Gibson, Ecosystem Director, America Makes
- Dr. Melissa Orme, Vice President, Additive Manufacturing, Boeing

For a full listing of the 60+ speakers and panelists, visit the AMTC website at: [AMTC | AM Technology Conference](#)

Some 500 guests will attend the conference in person, and 3,000 more will participate virtually.

#### **About AMTC**

The Advanced Manufacturing Technology Conference (AMTC) will take place at the Technical University of Munich (TUM) on October 11 and 12, 2022. The event is an annual gathering of experts and thought leaders from industry, academia, government and the scientific community where the challenges and opportunities associated with the industrialization of advanced manufacturing are

discussed. The conference is the fifth in a series that began as the Munich Technology Conference (MTC) in 2017. It was founded by the Swiss-based international technology group Oerlikon and is jointly organized with TUM and the Bavarian State Ministry for Economic Affairs. Siemens and Audi are the “Gold Partners” of the conference this year. The conference will be held in English. Additional information and registration for the conference can be found at: [AMTC | AM Technology Conference](#)

## **About Oerlikon**

Oerlikon (SIX: OERL) is a global innovation powerhouse for surface engineering, polymer processing and additive manufacturing. The Group’s solutions and comprehensive services, together with its advanced materials, improve and maximize the performance, function, design and sustainability of its customers’ products and manufacturing processes in key industries. Pioneering technology for decades, everything Oerlikon invents and does is guided by its passion to support customers’ goals and foster a sustainable world. Headquartered in Pfäffikon, Switzerland, the Group operates its business in two Divisions – Surface Solutions and Polymer Processing Solutions. It has a global footprint of more than 12 000 employees at 202 locations in 37 countries and generated sales of CHF 2.65 billion in 2021.

## **For further information, please contact:**

Sara Vermeulen-Anastasi  
Head of Group Communications  
Tel: +41 58 360 98 52  
Sara.vermeulen@oerlikon.com  
www.oerlikon.com

Dr. Peter Stuckenberger  
Executive Communications  
Tel: +49 170 230 6116  
peter.stuckenberger@oerlikon.com  
www.oerlikon.com/am