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AM Experts' Event: Solukon stages first AM User Day

This year German Solukon Maschinenbau, pioneer and technical leader of automated powder removal, has started a new event series: the AM User Day. The first edition of this event was a full success with great speakers and registrations from 20 various countries.

The Solukon AM experts' event was split in two blocks. In the morning the event took a closer look at Industrial Serial Production in AM. After a short keynote by Andreas Hartmann, CEO and CTO of Solukon, stage was open to Chris Barefoot, Head of Sales at Materials Solutions. Chris gave an insight into data driven improvement of production lines by decreasing the so-called lead time, which means the time customers have to wait until the AM product can be delivered. "Beside quality and cost, lead time is a key factor for decision making in the AM sector. Decreasing the lead time is more difficult than expected. In the end, it is all about detailed data, which are often difficult to track in between the different steps of the production line", Chris concluded.

Automation in AM

Later on, the User Day community focused on the subject of automation in AM. "The ability to provide smart machines which can be integrated in the existing factories and the corresponding IT systems is key to the success of Additive Manufacturing", said Rainer Salzberger, Digital Manufacturing Consultant at EOS, in his presentation about EOS Connectivity. He also presented the EOSCONNECT product landscape for connectivity which is perfectly suitable to Solukon's Digital Factory Tool for quality assurance and automation integration. Asked after the main pain point in implementing connectivity projects in AM Rainer Salzberger concluded: "Fulfilling the requirements of the IT departments is the biggest challenge. Every new software or tool you bring into your AM facilities has to be screened for cyber security reasons and for compatibility with the existing infrastructure", he added.

Sticking with the subject of automation Rainer Salzberger handed over to Felix Hantsch and Dr. Achim Fischer from German pneumatics specialist Festo who presented a world premier at AM User Day. Festo and Solukon actually are collaborating in a joint research project to investigate handling solutions and kinematics within a Solukon depowdering unit.

Automated depowdering processes can sometimes struggle to remove powder from component surfaces despite rotating and vibrating the component, particularly when dealing with difficult-to-handle materials like copper. Using a light and direct blow of air will dislodge these fine deposits. By blowing air through the channels, it is also possible to check that they are free of deposits. Currently this is a manual procedure that can be carried out easily at the Solukon system using glove ports. However, larger components with a height of at least 1 meter make access more difficult and this requires automated support. The joint project between Festo and Solukon to investigate handling solutions and kinematics will show how this process can be designed with maximum efficiency.

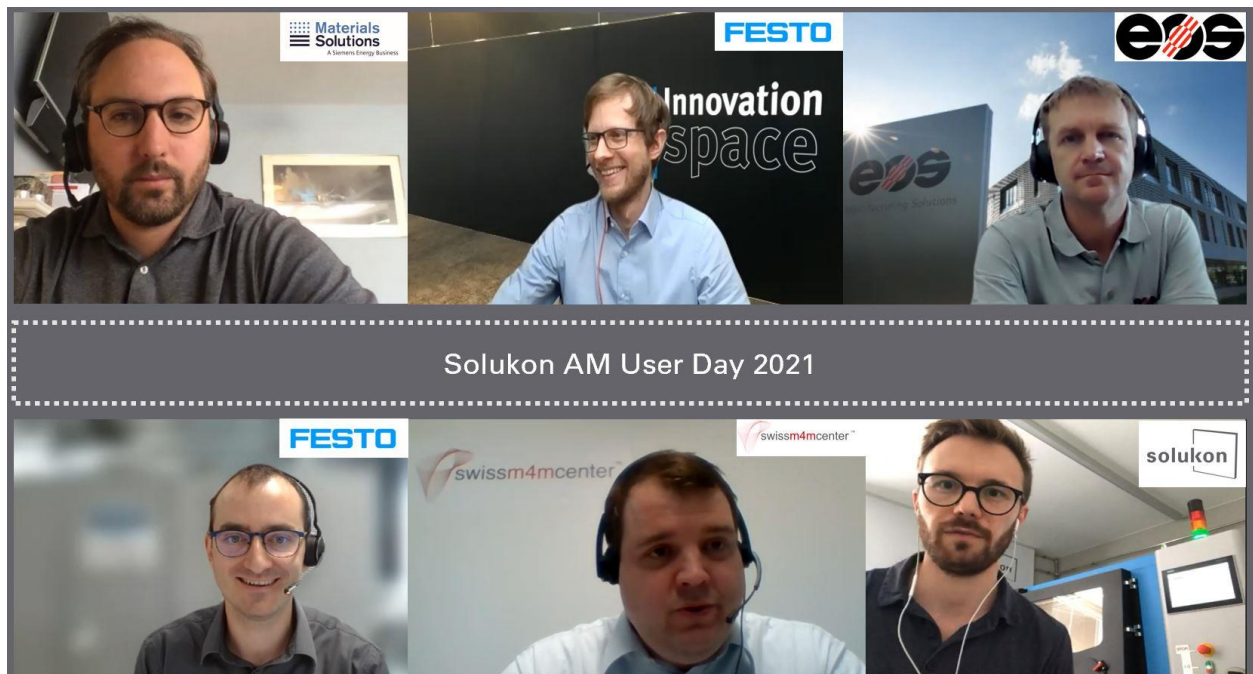


Figure 1: The speakers at AM User Day

AM in the high complexity sector MedTech

The second half of AM User Day focused on AM in the MedTech industry. With Nicolas Bouduban, CEO of the Swiss m4m Center in Switzerland, undoubtedly a real industry expert spoke about AM technology transfer in the medical sector. “Additive Manufacturing is not only 3D printing. It’s basically the ability to link all parts of the process chain together”, explained Nicolas Bouduban. According to him, what makes the difference at the end is a global approach and understanding of quality assurance in every single step of the process. That’s why Swiss m4m Center offers services along the holistic process chain for verification or even validation of the customers’ project. In



MedTech AM experts should pay particular attention to Solukon’s field of depowdering according to Nicolas. “Depowdering is the entry door for proper postprocessing activities. Without a proper depowdering process, you risk having medical parts that are not cleanable or even not certifiable at all”.

Not only theoretical knowledge was shared at AM User Day but also practical insights were given. Alexander Bauer, Application Manager at Solukon, gave a live tour through the assembly area of Solukon followed by a live depowdering within the Solukon powder removal system SFM-AT800-S. Alexander Bauer also spoke about the functionalities and part capacities of the different depowdering systems.

After seven hours of deep AM knowledge and discussion the stage was open for free table talking and networking.

During the day Solukon welcomed about 70 attendees from various nations around Europe. “We are overwhelmed by the positive outcome of our event”, shows Andreas Hartmann, CEO and CTO of Solukon, his content about the first instalment of the AM User Day. The next volume is in the pipeline, yet. “In late autumn, we will arrange the event in particular for American AM experts”, he says. The Solukon team is already looking forward to the second edition of AM User Day and for sure will be burning the midnight oil for the American AM community.

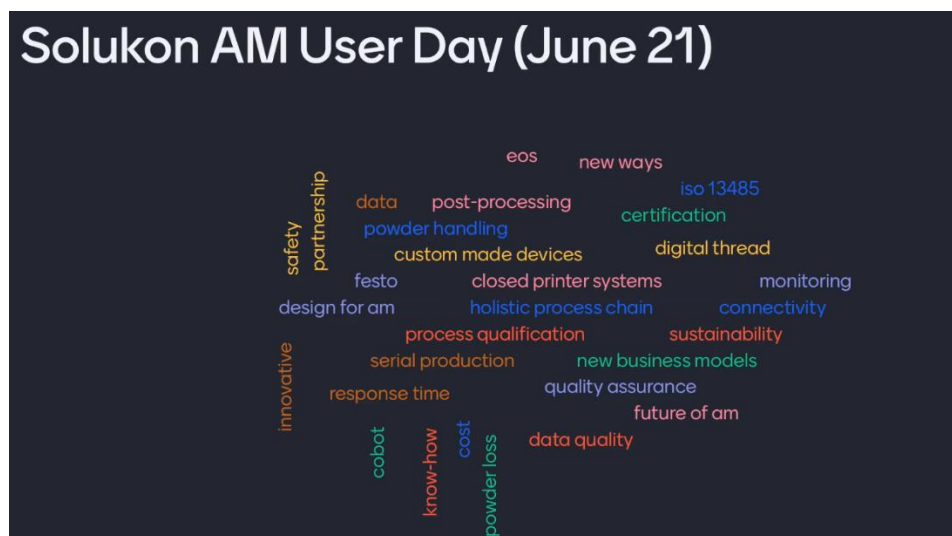


Figure 2: The attendees collaborated on a word cloud about the main challenges in AM.



About Solukon

Solukon Maschinenbau GmbH is a German high-quality supplier of powder removal and processing systems for metal and polymer additive manufacturing. Founded in 2015, the company, located in Augsburg, has extensive experience in the development of AM systems and related peripheral equipment, and offers a full range of industrial powder processing systems. Solukon products meet the highest functionality and safety standards and are approved for safe and reliable removal of tough-to-handle and reactive materials such as titanium and aluminum.

Solukon is present on four continents. The systems are trusted by leading manufactures of 3d-printing systems, like EOS, AMCM and SLM Solutions, by institutions like NASA as well as by companies like Siemens and Ariane Group.

Solukon Maschinenbau GmbH

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