



Rapid.Tech 3D
17 to 19 May 2022
Messe Erfurt

3D printing takes off **Airbus Helicopters at Rapid.Tech 3D: The challenges of developing a cost-effective additive-manufacturing process**

(Erfurt, 1th March 2022). The aerospace industry is one of the pioneering sectors that have brought additive manufacturing (AM) out of the experimental stage and into industrialised production. Because the lighter aircraft and helicopters are, the greater the reduction in fuel consumption and emissions. However, the advantages that can be exploited with AM in terms of lightweight construction and geometry are accompanied by numerous challenges in industrialising 3D printing.

Getting the entire AM chain into flight

Airbus Helicopters has been additively manufacturing parts for aircraft doors for about three years. The latch shafts are used in the A 350 passenger aircraft. "We started identifying components for metal 3D printing in 2017 and kicked off with this kinematic part. Compared with the conventional version, we save about 45 percent in weight and 25 percent in costs by so far integrating ten parts into one component. Around 3,500 shafts have been produced and the first of these have already been installed," reports Frank Rethmann, Head of the Industrial Service Center 3D Printing department at Airbus Helicopters. In a keynote address on the opening day of Rapid.Tech 3D, he will be talking about this and other series applications, as well as the challenges involved.

The 30:70 ratio, in particular, plays an essential role. "Printing is one thing. This process accounts for about 30 percent of the value chain. The downstream processing steps make up about 70 percent. A large number of tasks remain to be solved in order to securely master the close-knit additive chain. This also includes establishing 3D thinking among developers. This integral approach has to be implanted in the engineers' minds," the aerospace engineer emphasises.

Frank Rethmann is convinced that solving this and other challenges calls for close cooperation between all internal and external AM partners. In his keynote address, the 3D printing expert will be shedding light on how Airbus Helicopters practices this approach. He is looking forward to the reactions from the audience and to Rapid.Tech 3D as a whole, and hopes for fresh impetus from interacting with other experts in Erfurt. "Networking is essential in moving developments forward. Being able to do this in person rather than virtually gives it an entirely different quality."

High-calibre specialist programme with innovations from AM application and AM research

The opportunities and challenges of 3D printing in other mobility sectors will also be highlighted by keynote speakers from Porsche, Sauber and the German-Emirati Institute. In addition, experts from Autodesk, nFrontier, Procter & Gamble and Toolcraft will be presenting the latest AM product and process applications. The Construction Engineering, Design, Aviation, Medicine, Mobility, Software, Tools and News from AM trade forums will offer a more in-depth look at the keynote topics on all three days of the conference. The latest developments in and prospects for AM research and training will be considered in the Science forums. This strand of the programme will include a presentation from the Fraunhofer-Gesellschaft on current results and projects in the field of additive manufacturing.



Detailed information on the keynote speeches and the content of the individual trade forums can be found in the overview of the programme for the Rapid.Tech 3D specialist conference at the following link:
<https://www.rapidtech-3d.com/visitors/congress-programme/>

Big-name exhibitors have already booked their places

The Rapid.Tech 3D exhibition also offers an insight into the latest developments and applications in additive manufacturing. Companies and research institutions such as alphacam, Farsoon Europe, FIT, Stratasys and Trumpf have already booked their stands in Erfurt. There is still time to book exhibition space. More detailed information is available from the following link: <https://www.rapidtech-3d.com/exhibitors/registration-prices/>

Book tickets conveniently online

The Rapid.Tech 3D ticket shop is already open. Tickets to attend the conference on one, two or three days can be conveniently booked online at:
<https://www.rapidtech-3d.de/ticket/>

Further information: www.rapidtech-3d.com

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