

PRESS RELEASE

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Aachen Center for 3D Printing: Official launch of the world's largest SLM facility

For their joint project, the Aachen Center for 3D printing, the FH Aachen University of Applied Sciences and the Fraunhofer Institute for Laser Technology ILT have ambitious plans. On June 1, 2017, they officially opened the world's largest SLM facility, located in the new Digital Photonic Production industry building on the RWTH Aachen campus. Concept Laser's new XLine 2000R selective laser melting system plays a pivotal role in the SLM-XL research project, which is intended to accelerate and optimize the entire manufacturing process for large, metal components. Scientists are working closely with the Digital Photonic Production research campus, which is located in the same building and funded by the German Federal Ministry of Education and Research (BMBF).

Events are an everyday occurrence at the RWTH Aachen campus, but this was something else. Some 40 guests from industry and research were invited to attend the official opening of the world's largest selective laser melting (SLM) facility. Thanks to its extremely large build envelope (800 x 400 x 500 mm³), it can manufacture metal components with a maximum volume of 160 l.

Working together to further develop the SLM process chain

A primary goal is to further develop the entire SLM process chain for large-volume metal components. The Aachen Center for 3D Printing is relying on team work to conduct the three-year SLM-XL research project. Local small and medium-sized enterprises (SMEs) as well as renowned additive manufacturing companies are collaborating with experts from the FH Aachen University of Applied Sciences and Fraunhofer ILT to achieve important goals.

First, the SLM-XL unit is to accelerate the production of large-volume functional prototypes (for the automotive industry, for instance) in order to significantly shorten the often extremely long and expensive development processes. Second, the project team plans to 3D print large-volume tools that are adapted to provide custom functions, that are either impossible or very difficult and expensive to manufacture using conventional processes.

Editorial Notes

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Entry into the XXL segment

It's not just the participants in the SLM-XL research project – which has more than 15 project partners from several industry sectors – that benefit from the new SLM facility. According to Sebastian Bremen, team manager SLM productivity at Fraunhofer ILT: “The new joint SLM facility offers SMEs the opportunity to implement their own additive projects on an XXL scale using a facility that costs two million euros; a price tag generally too high for any individual company. Thanks to the Aachen Center for 3D Printing, SMEs now also have access to a technology that can make them more competitive and innovative. In addition, this unit is another important step towards establishing a joint research group between Fraunhofer ILT and the FH Aachen University of Applied Sciences.”

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Picture 1:
Grand Opening of XLine 2000R on June 1, 2017. F.l.t.r:
Prof. Dr. Doris Samm, Prorektor for Research and Innovation at FH Aachen University of Applied Sciences; Prof. Dr. Andreas Gebhard, Dean of Department Mechanical Engineering and Mechatronics at FH Aachen University of Applied Sciences; Prof. Dr. Reinhart Poprawe, Director of Fraunhofer Institute for Laser Technology ILT

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Picture 2:

XXL in focus: On June 1, 2017, the world's largest selective laser melting (SLM) facility for metal components was inaugurated at the new Digital Photonic Production industry building on the RWTH Aachen Campus.
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Further information

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