NEWS RELEASE

# voxeljet Showcases Its Next-Gen 3D Printers VJET X in Action at BMW Group: With 10x Faster Performance, the New 3D Printers Are Integrated Into a Fully Automated Additive Production Line

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voxeljet's 3D printers significantly reduce emissions in the additive manufacturing process of metal parts and make new designs possible

- voxeljet and Loramendi jointly developed a fully-automated serial additive production solution for inorganic 3D printed cores as part of the Industrialization of Core Printing (ICP) cooperation project
- BMW Group so far has implemented five VX1300-X (VJET-X) 3D printers for light-metal casting to produce high-performance engines at its plant in Landshut, Germany
- 10x faster than previous models, VJET-X printers will produce hundreds of thousands of cores per year for BMW Group
- Link to video: **https://www.youtube.com/watch?v=qmTu63XF9Aw**

FRIEDBERG, Germany--(BUSINESS WIRE)-- voxeljet AG (NASDAQ: VJET) and Loramendi demonstrate the world's first fully automated additive serial 3D production line for sand cores, jointly developed as part of the Industrialization of Core Printing (ICP) cooperation project. A new video released today features the implementation of the first ICP production line at BMW Group's plant in Landshut, Germany. As BMW Group's **largest component plant**, Landshut has approximately 3,500 employees and supplies all of its vehicle and engine plants worldwide, including for nearly all BMW, MINI and Rolls-Royce vehicles, and for its motorcycle brand, BMW Motorrad.

The customized, low-emissions solution integrates voxeljet's high-speed VX1300-X (VJET-X) 3D printers into a fully automated pre- and post-processing workflow, including industrial microwaves for curing the 3D printed cores.

Printing rates were increased by factor ten with the latest generation of VJET-X 3D printers, and the toolless design of the sand cores allowed for variant changes at unprecedented speed without time-consuming tool changes and production downtime. The unused material is 100% recycled and reused in the production process.

"The fully-automated 3D production line at BMW's Landshut plant is a key milestone not only for voxeljet, but for the entire 3D printing and automotive industry," said Dr. Ingo Ederer, founder and CEO of voxeljet. "We believe this customized, near-zero emissions solution achieved in partnership between voxeljet, Loramendi and BMW will become an industry standard."

Together, voxeljet and Loramendi are revolutionizing the industrialization of core printing. The production of inorganic 3D printed cores has enabled BMW Group to advance the design of its engine components. For example, the cylinder head for BMW's B48 engine has been significantly improved by using 3D printing to produce water jacket – outlet combi cores. Additionally, 3D printing allows BMW to produce sand cores in one piece, reducing the complex design of engine components while optimizing the engine's efficiency and fuel consumption. The inorganic 3D production line also significantly reduces the foundry's emissions, as only water steam is produced during the casting process.

voxeljet's powerful next-generation binder jetting 3D printing technology offers the highest additive productivity and throughput to meet the demands of BMW's large-scale production needs. voxeljet's layer-by-layer technology works by using sand and an inorganic binder. A print head selectively bonds layers of sand to create the cores, which are then unpacked, microwave cured, cleaned and inspected before being fed into BMW's established casting process. voxeljet has obtained one patent and has ten patent families with 28 patent applications that protect this proprietary approach across the United States, Europe, and other geographies.

## About voxeljet

voxeljet's (NASDAQ: VJET) roots reach back to the year 1995 with the first successful dosing of UV-resins. In the context of a "hidden" project, initial 3D-printing tests are performed at the Technical University Munich. Our company was founded on May 5, 1999 as a spin-off from TUM in Munich with a clear vision in mind: to establish a new manufacturing standard by developing new generative processes for the series-production of complex components using 3D printing. In the beginning, operations are launched with four employees at the TUM. Today, we are a globally acting, leading provider of high-speed, large-format 3D printers and on-demand 3D printed parts to industrial and commercial customers. Components manufactured with the help of our technology are flying in space, make mobility more efficient and the production of new engineering solutions possible. Visit our website **www.voxeljet.com**, and follow us on **Linkedin**, or on **Twitter**.

## Cautionary Statement on Forward-Looking Statements

This press release contains forward-looking statements concerning our business, operations and financial performance. Any statements that are not of historical facts may be deemed to be forward-looking statements. You can identify these forward-looking statements by words such as “believes,” “estimates,” “anticipates,” “expects,” “plans,” “intends,” “may,” “could,” “might,” “will,” “should,” “aims,” or other similar expressions that convey uncertainty of future events or outcomes. Forward-looking statements include statements regarding our intentions, beliefs, assumptions, projections, outlook, analyses or current expectations concerning, among other things, our results of operations, financial condition, business outlook, the potential application of new technology and new materials and their impact on future business, the industry in which we operate and the trends that may affect the industry or us. Although we believe that we have a reasonable basis for each forward-looking statement contained in this press release, we caution you that forward-looking statements are not guarantees of future performance. All of our forward-looking statements are subject to known and unknown risks, uncertainties and other factors that are in some cases beyond our control and that may cause our actual results to differ materially from our expectations, including those risks identified under the caption “Risk Factors” in the Company’s Annual Report on Form 20-F and in other reports the Company files with the U.S. Securities and Exchange Commission. Except as required by law, the Company undertakes no obligation to publicly update any forward-looking statements for any reason after the date of this press release whether as a result of new information, future events or otherwise.

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