SIEMENS

Press

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Siemens expands its additive manufacturing offerings on the Siemens Xcelerator Marketplace

- **Siemens Xcelerator enables the scaling of additive manufacturing solutions: achieving goals faster and more successfully with partners**
- **Additive manufacturing with Siemens technology accelerates the path to a circular economy**
- **AM I Navigator: Initiative expands to include Stratasys**

Under the motto “Let’s advance Manufacturing,” Siemens and selected partners will demonstrate at Formnext 2024 how additive manufacturing (AM) is becoming an innovation enabler for industrial applications thanks to a functioning ecosystem, digitalization, and automation. Additive manufacturing has become an established production technology in which productivity, costs, quality, and availability are critical to long-term market viability. The Siemens Xcelerator strategy emphasizes the importance of innovation and technology partnerships as well as open, interoperable technologies. They are essential when it comes to facilitating the integration of AM into conventional manufacturing technologies, meeting standardized quality and safety requirements, and accelerating the scaling of AM solutions. As a result, Siemens brings additive manufacturing offerings from additional partners in the Siemens Xcelerator Marketplace.

New offerings on the Siemens Xcelerator Marketplace

LEAM Technologies is revolutionizing large format additive manufacturing (LFAM) with light-based welding technology. In collaboration with CEAD, an expert in LFAM and a long-standing partner of Siemens, LEAM Technologies is opening up completely new possibilities in additive manufacturing. By using light to heat the material, LEAM

Siemens AG
Communications
Head: Lynette Jackson

Werner-von-Siemens-Straße 1
80333 Munich
Germany

enables extreme mechanical strength, even in difficult-to-print materials. This is of particular interest for applications in industries such as aerospace, defense, and energy. A temperature monitoring system from LEAM enables real-time temperature control during the additive manufacturing process. The edge-based solution, which is now available on the Siemens Xcelerator Marketplace, continuously checks and regulates the temperature at every position of the component to improve the quality of the printed parts. With LEAM, manufacturers can make their production processes more efficient, improve product quality, and reduce reject rates at the same time.

VLM Robotics, builder of XXL manufacturing machines, offers innovative and turnkey solutions for the railway, shipbuilding, aerospace, and energy industries. At Formnext, VLM Robotics will debut its new model CALYPSO, a fully automated autonomous mobile robotic solution based on Sinumerik One, Sinumerik CNC Robotics, and Simove for the first time, in addition to its well-known CNC robotic machines. Its GEMINI machine for XXL hybrid additive manufacturing will also be on display at the booth. VLM Robotics hybrid robotic solutions can perform printing (Directed Energy Deposition, Cold Spray), welding, control and milling tasks. VLM Robotics' range of CNC robotic machines can be seamlessly integrated into the production environment, enabling agile repair and production work on large components. Digital threads play a vital role in this, as they are end-to-end digital twins of all data and information across the entire lifecycle of a product, machine, and process, enabling seamless integration and transparency from development to disposal. The complexity of controlling a highly scalable multi-technology robotic machine while meeting high precision and quality requirements requires a high level of industry, automation, and digitalization expertise. VLM Robotics is now represented on the Siemens Xcelerator Marketplace, where it offers customized digital solutions that enable the seamless integration and tracking of all relevant data and information throughout the entire production lifecycle.

Additive manufacturing with Siemens technology paves the way to a circular economy

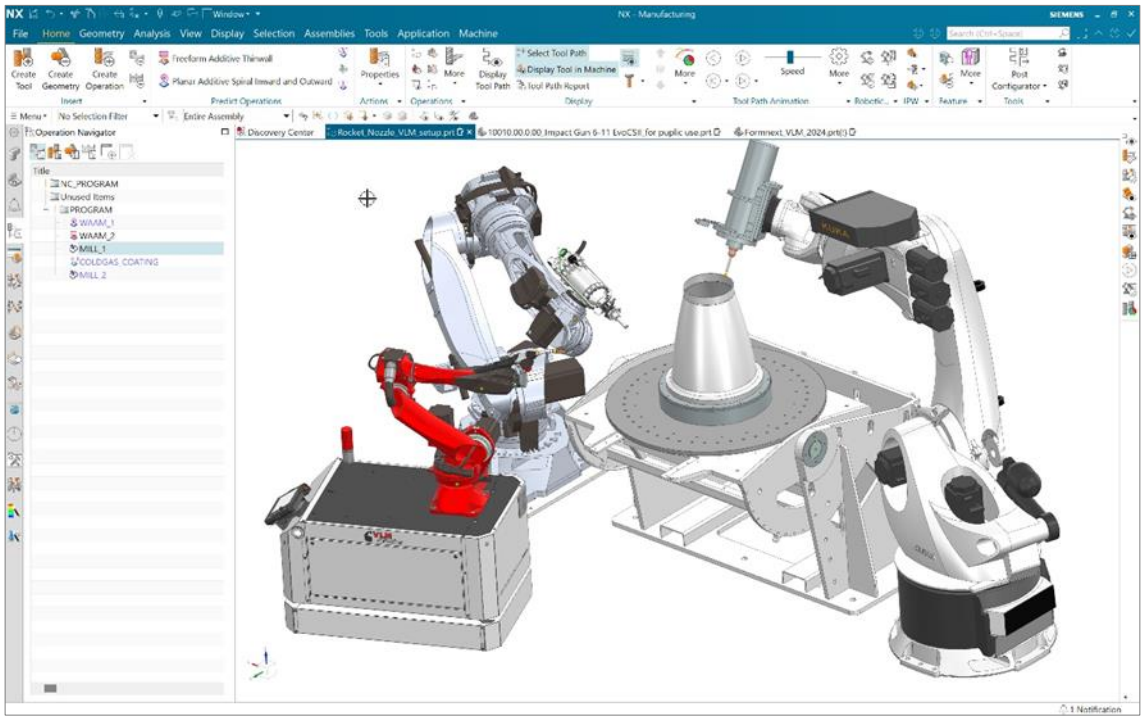
Additive manufacturing is also an important enabler of the circular economy. Designing products so that they can be reused, recycled, or safely returned to the environment at the end of their lifecycle promotes a sustainable value chain, reduces waste, and conserves resources. Product design plays a vital role in this since 80 percent of the

environmental impact is determined in the design phase. Siemens relies on industrial AI and the industrial metaverse to generate optimized designs and enable automated, intelligent workflows. Thanks to Siemens solutions, Toolcraft, for instance, can improve the design and engineering process for components by 30 percent for new designs and 85 percent for design modifications.

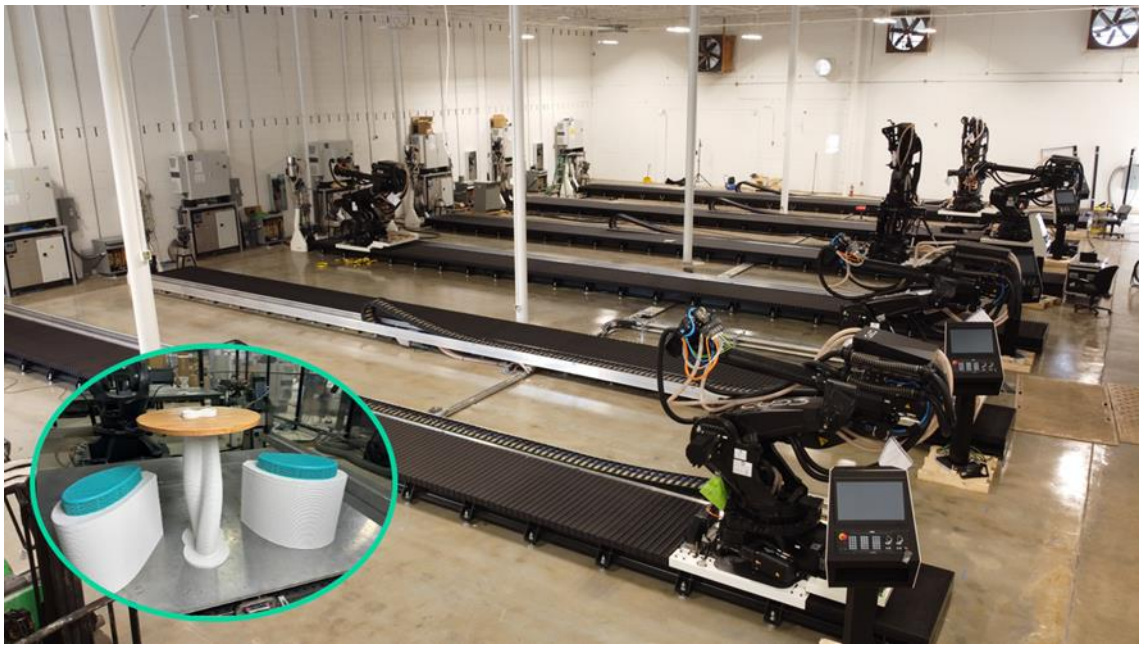
Haddy is revolutionizing furniture manufacturing with advanced 3D printing and robotics, producing high-quality, sustainable products at a low cost and on a commercial scale. Haddy is building a global network of local microfactories equipped with hybrid Flexbot systems from CEAD and recycling units that shorten the supply chain and help the environment by reducing waste. By collecting detailed data during the manufacturing process, the company is able to continuously optimize its robots for greater speed, accuracy, and efficiency. Committed to environmental responsibility, Haddy uses only renewable, recyclable materials. It also introduces a truly circular system for its products through Haddy Inside RFID chips and a scalable cloud API solution, allowing for responsible material tracing and recycling, enabling sustainable production and significantly reducing its environmental footprint.

AM I Navigator expands to include Stratasys

With Stratasys as a further partner, the AM I Navigator is entering the next round. Since the launch of the initiative in November 2023, the framework has been continuously refined and updated with concrete application examples. With its framework, the AM I Navigator provides a structured approach to defining the current status and the steps toward the target state of industrialized additive manufacturing. It builds on established frameworks for digital manufacturing, such as the Smart Industry Readiness Index (SIRI), which helps companies to assess their current level of digitalization and readiness for Industry 4.0 and to develop strategies for the modernization of their production processes.



At Formnext, VLM Robotics presents a fully automated autonomous mobile robot solution based on Sinumerik One, Sinumerik CNC Robotics and Simove.



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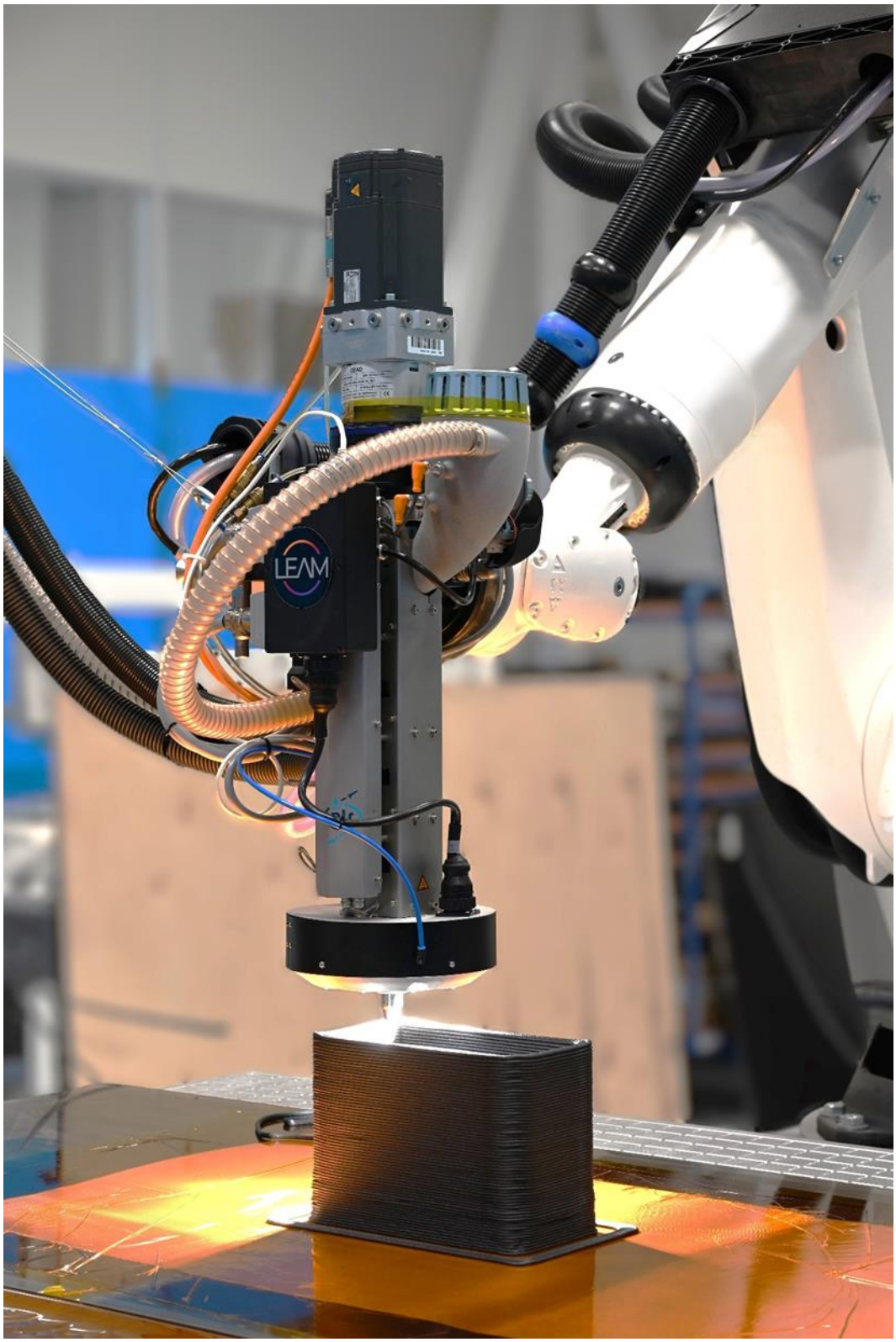

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You can find this press release and press pictures under the following link
https://sie.ag/7LhaCA

You can find this press release as well as additional information about Siemens at Formnext 2024 at www.siemens.com/press/formnext24

Contact for journalists
Katharina Rebbereh
Phone: +49 172 841 35 39
E-mail: katharina.rebbereh@siemens.com

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Siemens Digital Industries (DI) empowers companies of all sizes within the process and discrete manufacturing industries to accelerate their digital and sustainability transformation across the entire value chain. Siemens' cutting-edge automation and software portfolio revolutionizes the design, realization and optimization of products and production. And with Siemens Xcelerator – the open digital business platform – this process is made even easier, faster, and scalable. Together with our partners and ecosystem, Siemens Digital Industries enables customers to become a sustainable Digital Enterprise. Siemens Digital Industries has a workforce of around 70,000 people worldwide.

Siemens AG (Berlin and Munich) is a leading technology company focused on industry, infrastructure, mobility, and healthcare. The company's purpose is to create technology to transform the everyday, for everyone. By combining the real and the digital worlds, Siemens empowers customers to accelerate their digital and sustainability transformations, making factories more efficient, cities more livable, and transportation more sustainable. Siemens also owns a majority stake in the publicly listed company Siemens Healthineers, a leading global medical technology provider pioneering breakthroughs in healthcare. For everyone. Everywhere. Sustainably.
In fiscal 2024, which ended on September 30, 2024, the Siemens Group generated revenue of €75.9 billion and net income of €9.0 billion. As of September 30, 2024, the company employed around 312,000 people worldwide on the basis of continuing operations. Further information is available on the Internet at www.siemens.com .