

PRESS RELEASE

PRESS RELEASE

July 17, 2023 || Page 1 | 2

Launch of European Semiconductor- Metrology Technology Hub

Applied Materials and Fraunhofer IPMS launch European Semiconductor- Metrology Technology Hub

- **New hub will provide state-of-the-art metrology systems to accelerate semiconductor research and enhance development projects with chipmakers and ecosystem partners across Europe, particularly in ICAPS* market segments**
- **Collaboration to accelerate learning, develop novel methods and prove new metrology equipment, methods, algorithms and software**

Applied Materials, Inc., the leader in materials engineering solutions, and the Fraunhofer Institute for Photonic Microsystems IPMS, Germany's leading advanced 300mm semiconductor research center, today announced a landmark collaboration to create Europe's largest technology hub for semiconductor metrology and process analysis.

To be located at the Center Nanoelectronic Technologies (CNT) of Fraunhofer IPMS in Dresden, the technology hub is situated in the heart of Silicon Saxony, Europe's largest semiconductor cluster. The hub will be equipped with Applied Materials' state-of-the-art eBeam metrology equipment, including its VeritySEM® CD-SEM (critical dimension scanning electron microscope) systems, and staffed by Applied engineers and R&D experts.

"Fraunhofer IPMS and its partners will benefit from access to Applied's industry-leading eBeam metrology systems", said Dr. Benjamin Uhlig-Lilienthal, Head of Business Unit Next Generation Computing at Fraunhofer IPMS. "The new technology hub will offer advanced wafer-level metrology in our industrial CMOS environment with Fraunhofer IPMS's unique ability to loop wafers directly with semiconductor manufacturers."

"Our collaborative metrology hub will accelerate learning cycles and the development of new applications for the Fraunhofer Institute, Applied Materials and our customers and partners in Europe," said James Robson, Corporate Vice President for Applied Materials Europe. "This unique technology hub will have the capability to test and qualify processes on a variety of substrate materials and wafer thicknesses critical to applications across the diverse European semiconductor landscape."

Metrology is crucial in the production of microchips as it enables the accurate measurements needed to precisely monitor and control the quality of individual semiconductor manufacturing steps and sequences. Chipmakers use metrology

Editor

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FRAUNHOFER INSTITUTE FOR PHOTONIC MICROSYSTEMS IPMS

equipment at critical points to help validate physical and electrical characteristics and maintain target yields.

PRESS RELEASE

July 17, 2023 || Page 2 | 2

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*ICAPS = Internet of things, Communications, Automotive, Power and Sensors

About Applied Materials

Applied Materials, Inc. (Nasdaq: AMAT) is the leader in materials engineering solutions used to produce virtually every new chip and advanced display in the world. Our expertise in modifying materials at atomic levels and on an industrial scale enables customers to transform possibilities into reality. At Applied Materials, our innovations make possible a better future. Learn more at www.appliedmaterials.com.

About Fraunhofer IPMS

The Fraunhofer Institute for Photonic Microsystems IPMS is a leader in applied research and development in the fields of intelligent industrial solutions, medical technology, and mobility. Fraunhofer IPMS works on electronic, mechanical, and optical components and their integration into miniaturized devices and systems. The services range from conception and product development to pilot production in our own laboratories and clean rooms. With the Center Nanoelectronic Technologies, Fraunhofer IPMS offers applied research on 300 mm wafers for microchip producers, suppliers, equipment manufacturers and R&D partners. Find out more at <https://www.ipms.fraunhofer.de/de/Components-and-Systems/Components-and-Systems-Computing.html>.

Images



Applied Materials' eBeam metrology equipment at cleanroom of Fraunhofer IPMS
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The **Fraunhofer-Gesellschaft**, based in Germany, is the world's leading applied research organization. By prioritizing key technologies for the future and commercializing its findings in business and industry, it plays a major role in the innovation process. A trailblazer and trendsetter in innovative developments and research excellence, it is helping shape our society and our future. Founded in 1949, the Fraunhofer-Gesellschaft currently operates 76 institutes and research units throughout Germany. Around 30,800 employees, predominantly scientists and engineers, work with an annual research budget of roughly €3.0 billion, €2.6 billion of which is designated as contract research.