

PRESS RELEASE

PRESS RELEASEMay 21, 2024 || Page 1 | 3

Intelligent energy management for the future Fraunhofer IPMS supports the 300 mm process development of smart power technologies for the semiconductor manufacturer Infineon at the Dresden site

In a joint development project spanning around one year, important progress was made in the production of “Smart power technologies”. Fraunhofer IPMS provided significant support to the semiconductor manufacturer Infineon by supplying selected process modules within the entire CMOS process value chain on 300 mm wafers.

The collaboration played a key role in the process development for the factory expansion at Infineon Dresden. Over 2000 wafers were successfully processed as part of this collaboration. The wafers were exchanged several times between Fraunhofer IPMS and Infineon Dresden to ensure optimal use of resources and optimum integration into the production lines.

"The results of this joint project are extremely promising and mark a significant step forward for the production of smart power technologies at Infineon Dresden," commented project manager Andreas Thamm from Infineon. "The close collaboration and the provision of process modules by Fraunhofer IPMS have enabled us to move ahead faster than planned with the process transfer to 300mm equipment needed to expand our manufacturing capabilities."

The successful implementation of this project underlines the technological expertise and effective collaboration between Fraunhofer IPMS and its cooperation partners. The fact that several joint projects have already been completed with semiconductor expert Infineon proved to be valuable: "We have been working together for years," confirms IPMS project manager Dr. Malte Czernohorsky "In this project, Fraunhofer experts worked closely with colleagues from Infineon. The teams are now well attuned to each other. Our cooperation was always focused on achieving results, and our colleagues at Infineon were very accommodating towards our ideas, which commends Czernohorsky. "Based on the positive experiences from previous years, we are already thinking about follow-up projects."

This milestone and the expansion of capacities in the Smart Power Fab area illustrate Infineon's ongoing efforts to further strengthen its position as a leading supplier of high-performance circuits, particularly at the Dresden site. With the construction of the new Smart Power Fab, Infineon is making one of the largest single investments in its history. The aim of the semiconductor manufacturer is to increase the speed at which it expands its semiconductor production capacities and to further strengthen Europe as a chip manufacturing location. This is an important

Redaktion

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contribution to meeting the growing global demand for semiconductors - for example for applications to generate renewable energy, for use in data centers and for electromobility.

PRESS RELEASEMay 21, 2024 || Page 2 | 3

Infineon's work is being funded by the European Union, the German Federal Ministry for Economic Affairs and Climate Protection and the Free State of Saxony as part of an Important Projects of Common European Interest (IPCEI) in the fields of microelectronics and communication technologies. The funding supports the development of future-oriented, innovative microelectronics and communication technologies up to market maturity. The aim is to complete the European value chain, contribute to European technological sovereignty and promote climate protection through energy-efficient technologies and processes.

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. Its services range from design and product development to pilot production in its own laboratories and clean rooms. With the Center Nanoelectronic Technologies (CNT), Fraunhofer IPMS offers applied research on 300 mm wafers for microchip producers, suppliers, device manufacturers and R&D partners.

About Infineon Technologies AG

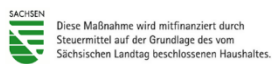
Infineon Technologies AG is a leading global provider of semiconductor solutions for power systems and the Internet of Things (IoT). With its products and solutions, Infineon is driving decarbonization and digitalization. The company has around 58,600 employees worldwide and generated sales of around 16.3 billion euros in the 2023 financial year (end of September). Infineon is listed in Frankfurt under the symbol "IFX" and in the USA on the OTCQX International market under the symbol "IFNNY".

Pictures

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 <p><i>Aerial view of Infineon Dresden © Infineon Technologies AG</i></p>	 <p>300 mm clean room at the Fraunhofer IPMS. © Fraunhofer IPMS</p>
 <p><i>"Smart power technologies" in applications for end consumers</i> © Infineon Technologies AG</p>	

PRESS RELEASE
May 21, 2024 || Page 3 | 3



aufgrund eines Beschlusses
des Deutschen Bundestages

Die **Fraunhofer-Gesellschaft** mit Sitz in Deutschland ist die weltweit führende Organisation für anwendungsorientierte Forschung. Mit ihrer Fokussierung auf zukunftsrelevante Schlüsseltechnologien sowie auf die Verwertung der Ergebnisse in Wirtschaft und Industrie spielt sie eine zentrale Rolle im Innovationsprozess. Als Wegweiser und Impulsgeber für innovative Entwicklungen und wissenschaftliche Exzellenz wirkt sie mit an der Gestaltung unserer Gesellschaft und unserer Zukunft. Die 1949 gegründete Organisation betreibt in Deutschland derzeit 76 Institute und Forschungseinrichtungen. Etwa 30 800 Mitarbeitende, überwiegend mit natur- oder ingenieurwissenschaftlicher Ausbildung, erarbeiten das jährliche Forschungsvolumen von 3 Milliarden Euro. Davon fallen 2,6 Milliarden Euro auf den Bereich Vertragsforschung.