

150 years

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We create chemistry

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IPMS

CNT - CENTER NANOELECTRONIC TECHNOLOGIES

Joint Press Release

## **BASF and Fraunhofer IPMS-CNT jointly develop electronic materials**

- **Partnership between BASF and Fraunhofer IPMS-CNT to develop advanced materials for the semiconductor industry**
- **Advanced application tests for customers**

Ludwigshafen, Dresden (Germany) – June 30, 2015 – BASF and Fraunhofer IPMS-CNT announced today that they have joined forces to develop innovative solutions for the semiconductor industry. BASF has installed a modern tool for electrochemical metal deposition at the Fraunhofer IPMS Center for Nanoelectronic Technologies (CNT) in Dresden.

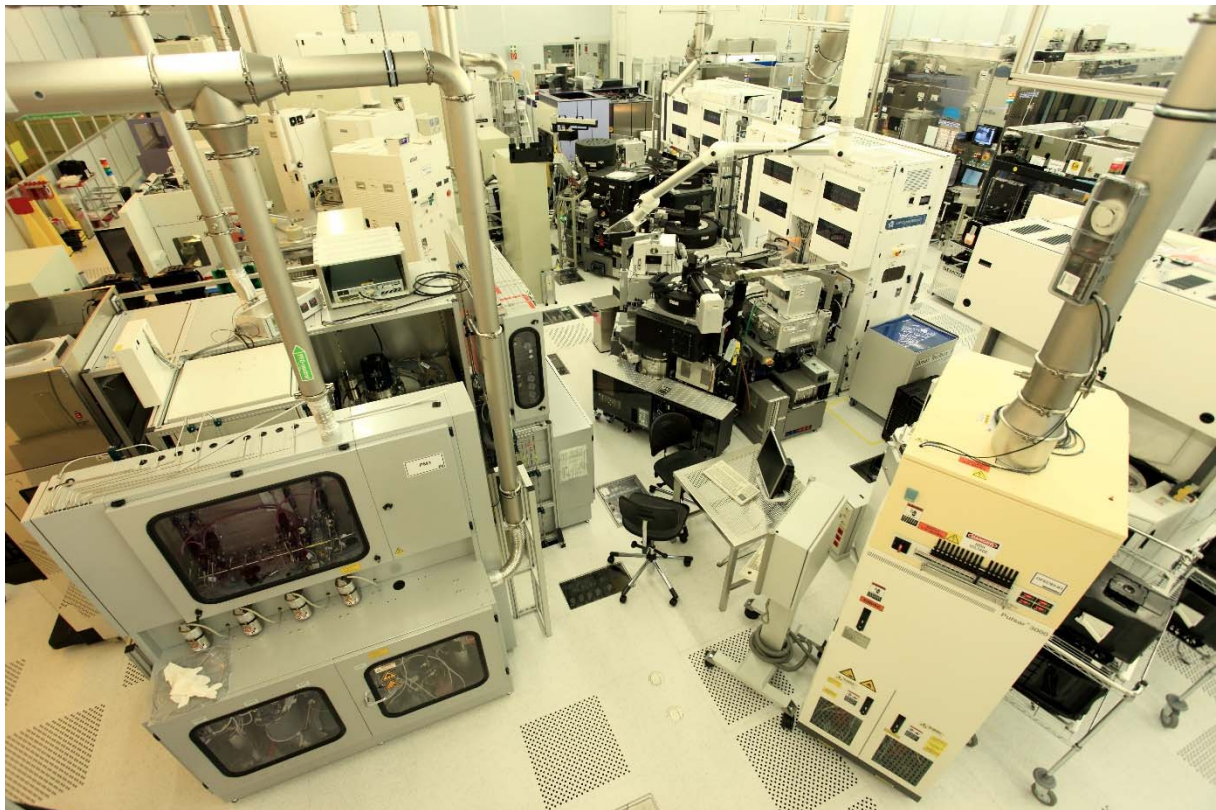
In pilot tests at the CNT, the latest technologies and innovative chemicals are further developed and tailored for BASF customers. BASF and Fraunhofer are using the same tool and technology used by customers, enabling customers to significantly reduce qualification effort. This saves customers development time, reduces their costs, and allows them to work more efficiently. When the pilot tests at the CNT are completed, customers will have direct access to ready-to-use processes for the production of advanced electronic materials.

"The collaboration with Fraunhofer IPMS-CNT in Dresden is further proof of BASF's commitment to meet the growing demands of the semiconductor industry. It allows our global customers to evaluate our innovative solutions for advanced microchip technologies under production conditions", says Dr. Lothar Laupichler, Senior Vice President, Electronic Materials at BASF. "In our global R&D network, which now includes IPMS-CNT, we will be collaborating with customers to develop products for the semiconductor industry that surpass current standards."

Dr. Romy Liske, business unit manager at the Fraunhofer Center for Nanoelectronic Technologies, adds, "The further development of materials and processes together

with BASF is an important step toward achieving the ever-growing requirements that microchips have to fulfill in terms of functionality, speed, and energy efficiency."

Microchips are widely used in the electronics industry, for example in computers, mobile phones, and electronic components for automobiles. They are manufactured on monocrystalline silicon wafers typically 300 mm in diameter in extremely clean environments known as clean rooms. The network of conductor paths in a microchip is created by means of electrochemical deposition.



*Clean room at Fraunhofer IPMS-CNT Dresden.*

### **About Fraunhofer IPMS – Center Nanoelectronic Technologies (IPMS-CNT)**

The Fraunhofer Gesellschaft is the largest organization for applied research in Europe with 23,000 employees. Fraunhofer IPMS is one of 67 institutes in Germany and exemplifies the close partnership between applied research and semiconductor production facilities in the industrial location "Silicon Saxony". At the Center Nanoelectronic Technologies (CNT), Fraunhofer IPMS carries out applied research on 300 mm silicon wafers for microchip manufacturers, component suppliers, and R&D partners. The services available at IPMS-CNT include the process modules of nanopatterning, high-k devices, interconnects / Cu metallization and sub-nm characterization. The wide-ranging expertise and industry standard mean that developments and new processes can be integrated quickly and without risk in the customers' processes, minimizing production costs and saving time.

[www.ipms.fraunhofer.de](http://www.ipms.fraunhofer.de)

## About BASF

At BASF, we create chemistry – and have been doing so for 150 years. Our portfolio ranges from chemicals, plastics, performance products and crop protection products to oil and gas. As the world's leading chemical company, we combine economic success with environmental protection and social responsibility. Through science and innovation, we enable our customers in nearly every industry to meet the current and future needs of society. Our products and solutions contribute to conserving resources, ensuring nutrition and improving quality of life. We have summed up this contribution in our corporate purpose: "We create chemistry for a sustainable future." BASF posted sales of around €74 billion in 2014 and at the year end employed a workforce of more than 113,000 people. BASF is listed on the stock markets in Frankfurt (BAS), London (BFA), and Zurich (AN). Further information on BASF is available on the Internet at [www.basf.com](http://www.basf.com).

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