

Munich, November 07, 2024

Press release

Smart Living at LOPEC 2025: Printed electronics for digitalization

- **Printed sensors revolutionize the healthcare industry**
- **Intelligent solutions for smart cities and building management**
- **Half-day application sessions at the LOPEC Conference**

LOPEC, the trade fair and conference for flexible, organic and printed electronics, will be opening its doors again in Munich from February 25 to 27, 2025. Under the focus topic of Smart Living, companies, research institutes and experts will show how printed electronics is paving our way to a digitized and sustainable society.

“The success of printed electronics can be seen in numerous applications at LOPEC,” emphasizes Armin Wittmann, Exhibition Director of LOPEC. “Some of them have become indispensable in our everyday lives, others are just starting their triumph.” Ultra-thin flexible circuits, sensors, and other printed electronics components are essential, especially as digitalization advances. Under the focus topic of Smart Living, LOPEC brings together innovations for a wide range of industries from the healthcare sector to building management.

In everyday nursing care, for example, printed electronics helps overcome demographic change and the shortage of skilled workers. LOPEC exhibitor Witte Technology and the startup AssistMe have jointly developed incontinence products with integrated sensor strips. The printed sensors detect the moisture in the diaper. A reusable clip transmits the data to an app. That saves staff from having to carry out checks and takes away the patients’ anxiety about wetting their clothes. Innovations for the healthcare sector can also be found at the stands of Covestro, Flexoo, Henkel, IEE and many other exhibitors. The range

Claudia Grzelke
PR Manager
Tel. +49 89 949-21498
claudia.grzelke@messe-muenchen.de

OE-A Press Contact
Isabella Treser
Press & Public Relations
Tel. +49 69 6603 1896
isabella.treser@oe-a.org

Messe München GmbH
Am Messesee 2
81829 München
Germany
messe-muenchen.de

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extends from pharmaceutical packaging with integrated electronics that remind patients to take their medication, monitoring of medication intake, and smart insoles for rehab patients, to digital occlusal measurement in dentistry, in which a sensor foil replaces the usual bite paper.

Intelligent buildings and smart cities

LOPEC 2025 is also focusing on smart solutions for buildings and cities. The Portuguese materials research institute Centi, for example, will be showcasing garbage cans that are equipped with printed electronics to automatically detect the fill level. The waste collection service is informed when the container is full and can therefore adapt routes based on actual demand. Meanwhile, in building technology, printed electronics enables reliable yet cost-effective touch control of devices as well as the large-scale integration of sensors in floors and walls. Room climate, lighting, and much more can thus be controlled automatically. Smart solutions like these require energy. LOPEC exhibitor Epishine has the ideal solution. The Swedish company offers solar cells that generate electricity from indoor light, even in poor lighting conditions, making the electronics self-powered and more sustainable, since cables and batteries are no longer required.

Bridge between materials research and application

All of these innovations are based on high-tech materials. “LOPEC covers the entire value chain from material development to the end product,” emphasizes Armin Wittmann. “Again, leading manufacturers will be presenting the latest trends in materials sciences.” Heraeus, for example, will be showcasing a new coating process with particle-free silver inks, referred to as MOD inks (MOD stands for metal organic decomposition). They can be applied precisely without any masking steps, thus reducing waste. The technology meets the standards of the semiconductor industry and is suitable for mass production. At LOPEC, plastics manufacturer Covestro will be presenting thermoplastic polyurethane films (TPU films) for the healthcare sector that can be printed with electronics and worn close to the skin. They are breathable and stretchable, can tolerate

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humid environments, and are also made from around 50 percent bio-based materials.

“With LOPEC 2025, we are building an even stronger bridge between research and application than before,” explains Wittmann. New to the LOPEC Conference program are special application sessions that pool user knowledge in half-day blocks. They will be followed by guided tours of the trade fair. LOPEC 2025 thus offers all interested parties the ideal opportunity to find out about the potential and latest applications from the world of printed electronics in a compact format.

You can find this press release including images for download [here](#).

LOPEC

LOPEC (Large-area, Organic & Printed Electronics Convention) is the world's leading event for printed electronics. The combination of exhibition and conference covers the complexity and dynamism of this young industry perfectly. LOPEC is organized jointly by the OE-A (Organic and Printed Electronics Association) and Messe München GmbH. The next event will take place from February 25-27, 2025, at the ICM – Internationales Congress Center München. www.lopec.com

Messe München

As one of the world's leading trade fair organizers, Messe München presents the world of tomorrow at its about 90 trade fairs worldwide. These include twelve of the world's leading trade fairs such as bauma, BAU, IFAT and electronica. Messe München's portfolio comprises trade fairs for capital and consumer goods, as well as for new technologies. Together with its subsidiaries, it organizes trade fairs in China, India, Brazil, South Africa, Turkey, Singapore, Vietnam, Hong Kong, Thailand, and the U.S. With a network of more than 15 affiliated companies and almost 70 representations worldwide, Messe München is active in more than 130 countries. The more than 150 events held annually attract around 50,000 exhibitors and around three million visitors in Germany and abroad.

OE-A

The OE-A (Organic and Printed Electronics Association) is the world's leading industrial association for flexible, organic and printed electronics. It represents the entire value chain of this industry. Its members are world-leading companies and institutions, from research and development institutes to, mechanical engineers and material manufacturers to producers and end users. More than 200 companies from Europe, Asia, North America, and Africa work together in the OE-A to further advance the development of a competitive infrastructure for the production of flexible and printed electronics. OE-A is an international working group within VDMA. www.oe-a.org