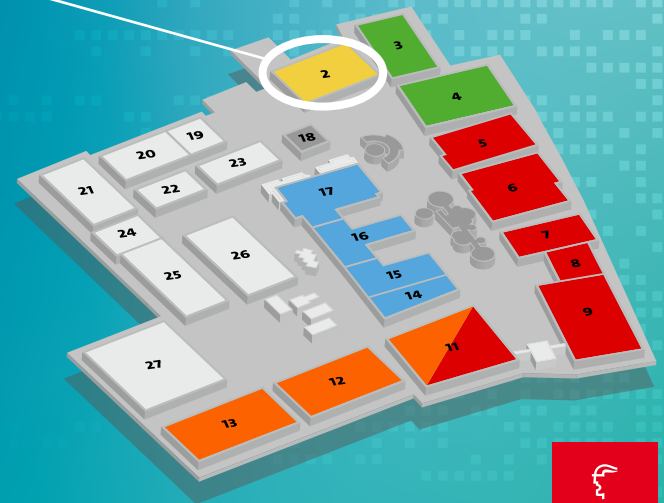




Meet us **April 22–26, 2024**
at the Fraunhofer booth:
Hall 2, booth B24



Contact

Dr.-Ing. Kai Lindow
Virtual Product
Creation division
Tel. +49 30 39006-214
kai.lindow@ipk.fraunhofer.de

Fraunhofer IPK
Pascalstr. 8–9
10587 Berlin
www.ipk.fraunhofer.de

Rethinking Product Development

Virtual Product Creation
at Hannover Messe 2024

Your Partner for Digital Value Creation

Digital methods, processes, models, and tools determine the value creation along the product life cycle today. On this basis, development times, quality, costs, and energy as well as resource efficiency of product systems can be planned and designed in a targeted manner.

At Fraunhofer IPK, we are realizing our vision of completely digitalizing product development and planning processes. We help developing and manufacturing companies to take later life cycle phases of product systems into account at an early stage.

At Hannover Messe 2024, which takes place April 22–26 at the Hannover fairgrounds, we present two of our current major research activities:

More information
about about our exhibits
can be found here



www.ipk.fraunhofer.de/biofusion40-en

www.ipk.fraunhofer.de/gaia-x-en

BioFusion 4.0

We Add Biology to Industry 4.0

»BioFusion 4.0« transfers principles from nature to industrial manufacturing to achieve sustainable and circular value creation. At Hannover Messe 2024, Fraunhofer IPK demonstrates how biogenic materials and digital solutions can be used to design resilient production processes and sustainable products. At the trade fair, we will use the example of the life cycle of a hand orthosis for assembly processes to show

- how sustainability information is taken into account from the product development stage,
- how production is ecologically and socially optimized using bio-based materials such as used grease, self-organizing multi-agent systems, and ergonomics recognition,
- what a circular product end-of-life looks like and how it is supported with automatic detection of product anomalies.

Gaia-X

We Explore Gaia-X's Potential

The Gaia-X initiative is developing an open-source framework for a federated and secure data infrastructure that enables the trusted exchange of data and ensures the digital sovereignty of data owners while promoting interoperability across different platforms.

At this year's Hannover Messe, Fraunhofer IPK will showcase how new data-driven business models can be enabled through Gaia-X-based data ecosystems and collaborative digital twins. During the event, we will focus on a specific use case: a drone selection service for firefighting missions. In our demonstration, we illustrate how participants interconnect and how their data and the services they provide are made available in a Gaia-X ecosystem based on Gaia-X 4 AMS, a project from Gaia-X 4 Future Mobility.