

FRAUNHOFER INSTITUTE FOR INTEGRATED CIRCUITS IIS

PRESS RELEASE

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A federal Europe needs a federal data management system

A jointly operated system that allows European states to maintain regional sovereignty is needed to ensure the responsible and innovative management of data from business, organizations and public administration. This is the argument put forward in the position paper entitled "Federal structures in data management," published by the Fraunhofer Cluster of Excellence Cognitive Internet Technologies CCIT in early June 2021 (in German). Prof. Alexander Martin, Director of the Fraunhofer Institute for Integrated Circuits IIS, played a leading role in composing the document and formulating the recommendations for action it contains for policymakers and industry.

The position paper ties in with the German federal government's data strategy and the European GAIA-X project. These lay the foundations for the connected and open supply and use of data in Europe. But what they lack, Martin believes, is translation into a physical and regional infrastructure. "We need highly specific applications for developing and operating data management technologies and solutions," he says. "This isn't about handing sovereignty over to companies or government organizations; rather, the point is for stakeholders to find solutions together. These should be based on European values such as data protection, transparency and openness. We need a data management system tailored to Europe's federal structure."

Regional use, federal benefits

A federal approach to data management keeps data physically within a given region while allowing cross-regional collaboration. "To achieve that, we need to update the German federal government's strategy to provide for the following three points: infrastructure, data use and data competence.

This concept covers the complete data-processing chain, from data acquisition, transmission and storage all the way to analysis, processing and reuse. The aim is to gain trust and acceptance for this form of data management, to support applications, and to create a positive impact on business and society. "To clear the way for responsible and innovative data management in Europe, we must invest in applied research, working closely with companies and public institutions," Martin says.



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About Fraunhofer CCIT

In the Fraunhofer Cluster of Excellence Cognitive Internet Technologies CCIT, the Fraunhofer-Gesell-schaft works on cognitive Internet technologies for an agile, flexible and competitive economy and society. To this end, Fraunhofer CCIT combines the expertise of more than 20 Fraunhofer Institutes from the fields of microelectronics, information and communication technology, and production. The joint research and development work is focused on the technology fields of IoT communication, trusted data spaces and machine learning in three research centers.

Website: https://www.ccit.fraunhofer.de/

Explanatory film: https://s.fhg.de/cciterklaerfilm

The Fraunhofer-Gesellschaft, headquartered in Germany, is the world's leading applied research organization. Its research activities are conducted by 75 institutes and research units at locations throughout Germany. The Fraunhofer-Gesellschaft employs a staff of some 29,000, who work with an annual research budget totaling 2.8 billion euros.

The **Fraunhofer Institute for Integrated Circuits IIS**, headquartered in Erlangen, Germany, is a world leader in research on microelectronic and IT system solutions and services. Today, it is the largest institute of the Fraunhofer-Gesellschaft. Research at Fraunhofer IIS revolves around two guiding topics: In the area of "**Audio and Media Technologies**," the institute has been shaping the digitalization of media for more than 30 years now. Fraunhofer IIS was instrumental in the development of mp3 and AAC and played a significant role in the digitalization of the cinema. Current developments are opening up whole new sound worlds and are being used in virtual reality, automotive sound systems, mobile telephony, streaming and broadcasting.

In the context of "cognitive sensor technologies," the institute researches technologies for sensor technology, data transmission technology, data analysis methods and the exploitation of data as part of data-driven services and their accompanying business models. This adds a cognitive component to the function of the conventional "smart" sensor.

More than 1100 employees conduct contract research for industry, the service sector and public authorities. Founded in 1985, Fraunhofer IIS now has 16 locations in 12 cities: Erlangen (headquarters), Nuremberg, Fürth and Dresden, as well as Ilmenau, Munich, Bamberg, Waischenfeld, Coburg, Würzburg, Deggendorf and Passau. The budget of 167.9 million euros a year is mainly financed by contract research projects; 29 percent of the budget is made up of German federal and state funds.

For more information visit www.iis.fraunhofer.de