

PRESS RELEASE

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Patent knowledge for research: start of DFG project “Patents4Science“

Together with its partners in research, FIZ Karlsruhe develops an innovative information infrastructure for patent information to be used by scientists. Entirely new: a patent-centered knowledge graph.

Karlsruhe, June 28, 2022 — A large part of the entire technical knowledge of mankind such as the description of technical processes and apparatus, the properties of active pharmaceutical ingredients or details of special bio-medical processes, etc. is described in patents. So far, this knowledge has been used primarily in an industrial context, but hardly at all in science and society. Thus, a large part of the opportunities arising from the exploitation of patent information to create new knowledge remain unused. This results in a loss of innovation, a loss of quality, a loss of impulse for technology transfer. And this means a loss of international scientific and economic competitiveness. Future opportunities are jeopardized.

In cooperation with the Leibniz Institute for Plasma Science and Technology e.V. (INP) in Greifswald and by means of a needs analysis consisting of several online surveys carried out at other selected Leibniz institutes, FIZ Karlsruhe has substantiated the need to use patent knowledge in research. Major obstacles in accessing and "reading" patent information were identified. Now, the project "Patents4Science", funded by the German Research Foundation (DFG), is to create something new over the next three years: A patent-centric knowledge graph based on Linked Open Data as well as a modern information infrastructure for linking patent knowledge with scientific literature and other subject-specific information - this is also entirely new. In the course of their work, researchers will gain access via dedicated semantic information services to new approaches to solutions, experiments or technical specifications that are not or were hardly ever published elsewhere.

Sabine Brünger-Weilandt, President and CEO of FIZ Karlsruhe, stresses the strategic importance of the project: "We are very much looking forward to this project and the cooperation with our partners. Our goal is to raise awareness of the fundamental importance of patent information in science. And we want to contribute to better exploiting the potential for addressing the major societal challenges of our time, such as climate change."

Cooperation partners of FIZ Karlsruhe are the INP, the Leibniz Institute for Materials Oriented Technologies - IWT in Bremen and the INM - Leibniz Institute for New Materials in Saarbrücken. The infrastructure developed in the project will be



evaluated on the basis of selected use cases of the project partners. This involves the use of patent knowledge for efficient technology transfer to research on plasmas, 3D printing or on new battery materials for next-generation energy storage.

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FIZ Karlsruhe – Leibniz Institute for Information Infrastructure is one of the leading providers of scientific information and services and a member of the Leibniz Association. Our core tasks are the professional provision of research and patent information to science and industry, and the development of innovative information infrastructures, with a focus on research data management, knowledge graphs and digital platforms. To this end, we conduct our own research, cooperate with renowned universities and research societies, and are internationally and interdisciplinarily networked. FIZ Karlsruhe is a non-profit limited liability company and one of the largest non-academic institutions of its kind.

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