

Major research success for Magdeburg as a science location

02.02.2024 - **Otto von Guericke University Magdeburg reaches the next round in the nationwide competition for cluster of excellence.**

The **SmartProSys** (<https://www.smartprosys.ovgu.de/>) **research initiative**, which focuses on the sustainable production of chemicals, has been **selected** by an international panel of experts **to submit a full proposal for million-euro funding for 2026** as part of the Excellence Strategy of the German federal and state governments. **The final funding decision will be made in May 2025.** The Cluster funding would then start at the beginning of 2026 for seven years. The **SmartProSys** (<https://www.smartprosys.ovgu.de/>) research cluster was developed by **the Research Center Dynamic Systems (CDS)**. As part of the **Excellence Strategy** (<https://www.exzellenzstrategie.de/en/>), the federal and state governments are funding clusters of excellence in specific research fields and universities of excellence as strategic support for outstanding locations. **From 2026, a total of 687 million euros per year will be available for this purpose.**

SmartProSys (<https://www.smartprosys.ovgu.de/>) stands for Smart Process Systems for Green Carbon-based Chemical Production a Sustainable Society. The research initiative **is working on developing approaches and processes for sustainable carbon based chemical production in the future.** The aim is to replace fossil raw materials with renewable carbon sources and to transform energy-intensive process chains into completely closed cycles. The aim is to create a chemical industry that is **based on biogenic residual and waste materials as well as recycled plastics** and whose processes are powered **exclusively by renewable energies.**

The planned **SmartProSys** (<https://www.smartprosys.ovgu.de/>) **application volume for the seven-year funding period is expected to be around 45 million euros.** CDS member and spokesperson for the research initiative, Prof. Dr.-Ing. Kai Sundmacher, Head of the Chair of Systems Process Engineering at the University of Magdeburg, is delighted with this first important step on the way to becoming a Cluster of Excellence. He continues: "Our central research question is **how plastic waste and biogenic waste materials** can be systematically and efficiently converted into valuable molecules **for new products.**"

SmartProSys (<https://www.smartprosys.ovgu.de/>) is a joint research initiative of **Otto von Guericke University Magdeburg** (<https://www.ovgu.de/en/>) and the **Max Planck Institute for Dynamics of Complex Technical Systems Magdeburg** (<https://www.mpi-magdeburg.mpg.de/2316/en/>). **The Leibniz Institute for Catalysis (LIKAT)** (<https://www.catalysis.de/en/>) in Rostock and **Brandenburg University of Technology (BTU)** (<https://www.b-tu.de/en/>) in Cottbus are also involved. Scientists from the following fields are involved in the interdisciplinary research project

- ▶ process engineering,
- ▶ chemistry,
- ▶ mathematics,
- ▶ computer science,
- ▶ logistics,
- ▶ economics,
- ▶ political science and
- ▶ psychology.

In addition **to designing, simulating, and optimizing novel production processes** they will also investigate the **economic and social effects** of transforming a previously energy- and resource-intensive chemical industry into a sustainable circular economy.

The Rector of the University of Magdeburg, Prof. Dr.-Ing. Jens Strackeljan congratulates the scientists and sees the reason for the positive assessment not only in the **great social relevance** of this future topic but above all in the extraordinary scientific expertise and outstanding and long-standing interdisciplinary cooperation of the researchers involved within the Center for Dynamic Systems (CDS).

To date, the Ministry of Science, Energy, Climate Protection and the Environment of Saxony-Anhalt has already **supported the**

development of the research initiative with 3.25 million euros. "This is great news for Saxony-Anhalt as a science location. For the first time, federal excellence funding is within reach for us," said Science Minister Prof. Armin Willingmann. "The successful performance in the first round also proves that it was right to focus emphatically on excellence in this legislative period and to provide universities with consistent financial support for their applications right from the start. After the great success in the first phase of the selection process, I am optimistic that we will also be successful in the final round."

› To the official press release of the Otto von Guericke University Magdeburg
(https://www.ovgu.de/Presse+_Medien/Pressemitteilungen/PM+2024/Februar/PM+11_2024-p-138028.html)

› To the official press release of the Max Planck Institute for Dynamics of Complex Technical Systems Magdeburg
(<https://www.mpi-magdeburg.mpg.de/pm-erfolg-smartprosys-exzellenzinitiative?c=4479485>)

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