

### Press release

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RoX - Digital ecosystem for AI-based robotics

**Frankfurt, January 16, 2025** – **The joint project RoX is dedicated to building a digital ecosystem that enables the use of innovative AI-based robotic solutions in practice-relevant applications and industries. It is funded by the Federal Ministry for Economic Affairs and Climate Action (BMWK). All relevant information and opportunities for participation will soon be available on the website: [www.project-rox.ai](http://www.project-rox.ai)**

The use of AI-based robotic systems offers enormous potential for strengthening industries that rely on high efficiency and flexibility. In addition, the market for robotics will be characterized by significant growth in the coming years. In order to fully exploit this potential, the RoX project is taking robotic systems to a new level of performance using advanced robotic components, artificial intelligence (AI) and a digital ecosystem. This will shorten innovation cycles and significantly accelerate system integration and commissioning.

Hartmut Rauen, Deputy Managing Director of VDMA, says: “RoX joins a family of forward-looking projects that have set themselves the goal of creating the data economy in Germany and Europe. The potential is considerable, especially when advanced topics such as data rooms meet innovative AI and cloud-based robotic solutions.”

No single market participant can cover or master the high complexity of AI-based robotic systems alone. This is why a consortium from business and science is cooperating across company boundaries in RoX. The focus is on practical use cases that address the current needs of manufacturing companies as well as the logistics and service sectors and offer innovative, transferable solutions. The central areas of application include

- Loading and unloading processes along the entire logistics chain

- Picking processes in unstructured environments

- Multifunctional and location-flexible robot systems in production

- AI-based commissioning of robot systems

In these areas, the feasibility and practicability of the developed solutions are demonstrated and evaluated for their potential for continuous further development and scalability.

Dr. Horst Heinol-Heikkinen, member of the VDMA Robotics + Automation Association's Board, says: “This initiative, which was launched by the Chancellor's Council for the Future, is of outstanding importance. The focus here is on the users, who are empowered to efficiently realize innovation leaps with AI-based robotics. The open ecosystem of RoX lowers existing barriers to internal and external collaboration, while users always retain sovereignty over their data.”

In order to develop a scalable digital ecosystem for AI-based robotics, RoX focuses on the integration of practice-oriented solutions in development and application environments, the provision of quality-assured software modules and AI models, as well as the design of semantic models and meta-data structures. Data security of the robotics ecosystem and networking with international initiatives are also being worked on as an integral component.

The sustainable organizational structure ensures that the developed software modules, the semantic models and the digital ecosystem will be provided and further developed beyond the end of the project. In this way, RoX will make an important contribution to the future of AI-based robotics and sustainably strengthen the innovative power of the industries involved.

About the project

RoX is a BMWK-funded research project that started in September 2024 with a duration of 30 months. A consortium of leading industry and science partners has set itself the goal of developing a digital ecosystem for AI-based robotics with scalable and innovative solutions for implementation in practice.

Consortium members: ABB AG, Boehringer Ingelheim Pharma GmbH & Co. KG, German Aerospace Center (DLR), DFKI, Fiege Logistik Stiftung & Co. KG, Gluth Systemtechnik GmbH, RIF Institut für Forschung und Transfer e.V., Intrinsic Innovation GmbH, INVITE GmbH, Mercedes-Benz AG, Roboception GmbH, Robomotion GmbH, SCHUNK SE & Co. KG, SOTEC GmbH & Co. KG, T-Systems International GmbH, VDMA Robotics + Automation, Wacker Chemie AG, Adolf Würth GmbH & Co. KG, Yardstick Robotics GmbH, Fraunhofer Institute for Manufacturing Engineering and Automation IPA, Fraunhofer Institute for Material Flow and Logistics IML, Dürr Systems AG, Rheinmetall Waffe Munition GmbH, SAFELOG GmbH, Siemens AG

Consortium management: ABB (spokesperson), Siemens, DLR, Fraunhofer IPA

Funded by the Federal Ministry for Economic Affairs and Climate Action on the basis of a decision by the German Bundestag with DARP funds. Funded by the European Union - NextGenerationEU.

8ra is the central digital initiative for Europe. At the heart of the initiative is the IPCEI Cloud, which is driven by more than 100 companies and research institutions from 12 EU Member States to build the world's first multi-provider cloud edge continuum. The main goal is to create a completely new decentralized software infrastructure for the advanced use of computing resources from the cloud to the edge. This novel open ecosystem, operated by multiple providers, will reduce both technological dependencies and lock-in effects. In addition, it will enable novel and innovative data-driven business models, e.g. related to Artificial Intelligence and IIoT (Industrial-Internet-of-Things), for a wide range of applications in industries such as manufacturing, mobility, energy and tourism. Projects with a volume of several billion euros are being implemented through the initiative. Further information can be found at [www.8ra.com](http://www.8ra.com/).

Ein Bild, das Grafiken, Schrift, Screenshot, Grafikdesign enthält.

Automatisch generierte BeschreibungEin Bild, das Text, Screenshot, Schrift, Visitenkarte enthält.

Automatisch generierte Beschreibung

Do you have any questions? Lukas Sohlbach will be happy to answer them: phone +49 69 6603 1590, email info@project-rox.ai.

The VDMA represents 3,600 German and European mechanical and plant engineering companies. The industry stands for innovation, export orientation and SMEs. The companies employ around 3 million people in the EU-27, more than 1.2 million of them in Germany alone. This makes mechanical and plant engineering the largest employer among the capital goods industries, both in the EU-27 and in Germany. In the European Union, it represents a turnover volume of an estimated 910 billion euros. Around 80 percent of the machinery sold in the EU comes from a manufacturing plant in the single market.

The VDMA Robotics + Automation Association (VDMA R+A) is a trade association within the umbrella of the VDMA with more than 420 member companies: Suppliers of components and systems from the fields of robotics, integrated assembly solutions and machine vision. The aim of this industry-driven platform is to support robotics and automation through a wide range of activities and services. Key activities include statistical analysis and market surveys, marketing activities, standards development, public relations, trend studies, trade fair policy as well as networking events and conferences. For further information, please visit: <https://www.vdma.org/robotics-automation>