Press Release

Innomatik AG Impresses in Deutsche Bahn's Innovation Competition and Becomes Part of the DB mindbox Program "Future of Operations & Maintenance (FOM) 2025"

On January 29, 2025, Germany-based Innomatik AG was selected as one of the winning startups for the 100-day program "Future of Operations & Maintenance (FOM) 2025" by DB mindbox, Deutsche Bahn's startup hub, in Frankfurt (Main). As part of the program, Innomatik AG will digitize Deutsche Bahn's (DB) circuit diagrams from the DB training center in Wuppertal, Germany. Many of these diagrams exist only on paper, which complicates maintenance efforts. In addition, the team from the German startup will create a photorealistic digital twin of the facilities in the training center and integrate the digitized training diagrams into it. The goal is to identify faulty relays more quickly using AI and logic-based approaches. This will help optimize maintenance processes and resolve faults faster.

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Bensheim, Germany, February 3, 2025 – Innomatik AG has been selected as one of the winning startups for the DB mindbox program "Future of Operations & Maintenance (FOM) 2025".

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Successful pitch in Frankfurt

On January 29, 2025, Dr. Alexandra Merkel, CTO of Innomatik AG, presented her concept to DB InfraGo experts in Frankfurt. With her expertise in artificial intelligence, she impressed the jury and secured Innomatik AG a spot in the 100-day DB mindbox program. During this time, the proposed solution will be tested and further developed.

AI-based solution for digital circuit diagrams

The company is simplifying the maintenance of railway infrastructure by digitizing circuit diagrams and applying AI-supported OCR+ (Optical Character Recognition), intelligent logic, and photorealistic digital twins.

Many of Deutsche Bahn's circuit diagrams currently exist only as paper documents, making efficient maintenance difficult. The solution from the Germany-based company enables automatic recognition of circuit diagrams, even in unstructured and handwritten annotated documents. The plans digitized by Innomatik are integrated into a photorealistic digital twin of the real environment, allowing circuits to be identified directly within the digital replica of the infrastructure. To achieve this, the Innomatik team is creating a photorealistic digital twin of the DB training center in Wuppertal. In the case of fault messages, an intelligent analysis is carried out using a combination of AI, computer vision, and logic to quickly detect faults such as defective switches (relays).

Collaboration with Deutsche Bahn

"Our technology makes it possible to seamlessly integrate existing paper-based circuit diagrams into an intelligent digital maintenance workflow. This makes troubleshooting more efficient and allows maintenance teams to respond more quickly. We look forward to exploring this potential further together with Deutsche Bahn in the coming months," says Dr. Alexandra Merkel.

About Innomatik

Innomatik, headquartered in Bensheim, Germany, is a prominent tech enabler specializing in digital transformation. Leveraging its profound knowledge and diverse expertise in cutting-edge technologies like virtual reality (VR), augmented reality (AR), robotics, and artificial intelligence (AI), Innomatik provides precise solutions and customized training to assist businesses effectively throughout their digital transformation initiatives. www.innomatik.com

About DB mindbox

DB mindbox is the startup hub of Deutsche Bahn AG, connecting startups with DB experts and external partners to develop digital solutions for the mobility of tomorrow. In structured programs, innovative solutions are

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tested live and further developed under real-world conditions. The goal is to identify digital technologies and new business models at an early stage, test them in practice, and successfully integrate them into railway operations. In this way, DB mindbox actively drives the digitalization and future of mobility forward. More information at: www.dbmindbox.com

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