

# German university launches electric mine trial

RWTH Aachen University has launched a new project called ELMAR that aims at the “Integration and Demonstration of Electric Mine Transport Systems in Resource Extraction”.



*Elisabeth Clausen, professor and director at Institute for Advanced Mining Technologies (AMT) (Front right)*

**Future Of Mining > Sustainability** Elisabeth Clausen, professor and director at Institute for Advanced Mining Technologies (AMT) at RWTH Aachen University, wrote that the project will take a comprehensive and integrative approach to electrification and automation of heavy mining machinery.

Comments

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For instance, it will consider the coupling of energy demand and supply and the adaptation of mine production processes, as well as cloud-based, AI-supported deployment of autonomous electric vehicles including drone-supported supervision for optimized safety of the operation, Clausen said in a LinkedIn post.

Demonstration of the solutions developed over the course of the project will take place in two brownfield projects as well as in a greenfield project until July 2025.

"We look forward to collaborating with a great team of experts from many different fields of expertise in order to make electric autonomous mine operation a reality!," she added.

The consortium is composed of two institutes of **RWTH Aachen University**, the **Institute for Advanced Mining Technologies (AMT)** and the Institute for Power Electronics and Electrical Drives (ISEA), and representatives from industry.

Participating from industry are **Volvo Trucks** Central Europe GmbH, **Volvo Construction Equipment** Germany GmbH, Volvo Autonomous Solutions AB (commissioned by **VCE** Germany GmbH), as construction equipment and transport vehicle manufacturers and automation providers, **Mineral Baustoff GmbH** (part of the **STRABAG** Group), **Knauf** Gips KG, Nivelsteiner Sandwerke & Sandsteinbrüche GmbH as mine operators, **PSI FLS Fuzzy Logik & Neuro Systeme GmbH**, **PSI Software AG** as providers of AI- and cloud-based software, and **TITUS Research GmbH** as developers of autonomous monitoring systems.

The project receives funding from the German Federal Ministry of Economic Affairs and Climate Action (BMWK) under the funding guideline "Research and development in the field of electromobility".



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