Federal Government Funds Research into Digital Rail Technology with 17.75 Million Euros

With a total of 17.75 million euros in funding from the BMVI, Chemnitz University of Technology and Deutsche Bahn AG plan to test technologies for the digitization and automation of rail transport under real conditions in the future.

(Press release from the Federal Ministry of Transport and Digital Infrastructure (BMVI) on 21 January 2021)

With a total of 17.75 million euros in funding from the BMVI, Chemnitz University of Technology and Deutsche Bahn AG plan to test technologies for the digitization and automation of rail transport under real conditions in the future. Along the line operated by Erzgebirgsbahn, 5G radio masts will be erected for the Digital Railway Test Field, existing buildings will be upgraded with state-of-the-art technology, and traction units will be converted into test trains.

Federal Minister Andreas Scheuer: "The winding, partly wooded, and mountainous route covers all eventualities that occur on most rail lines in Germany. This makes it the perfect test route for testing state-of-the-art rail and mobile communications technology. From digital control and safety technology to measures for better reception on trains, technologies are being researched and tested along the scenic but, from a radio perspective, challenging route that can then be used safely throughout Germany."

Minister President Michael Kretschmer: "The federal government is supporting and driving forward an ambitious and unique project for the future that is important for all of us. Thank you very much for this strong signal. It is wonderful how everyone is pulling together here to make this a success story. It's not just Germany as a country of science and ideas that will benefit from this as a whole. It also advances the economic and scientific region of Saxony and the Ore Mountains in particular. The project around mobility and rail travel of the future gets another powerful boost today."

In 2019, DB Netz AG received an approval for 1.5 million euros to set up the real lab in the Ore Mountains. Initial results are already being incorporated into DB AG’s major Digital Rail project.

DB Board Member for Infrastructure Ronald Pofalla: "More punctual and reliable trains, more capacity on the rails - with Digital Rail Germany, rail travel will become significantly more attractive. At the test site in the Ore Mountains, we can put digital rail operations through their paces under real conditions. What we test in the Ore Mountains will become the blueprint for all of Germany."

The current funding is primarily intended to support the transition from GSM-R radio, which has been used in the rail system since the 1990s, to the new FRMCS (Future Railway Mobile Communication System) standard based on 5G. This is characterized by real-time data transmission and high reliability. In particular, DB Netz AG’s real laboratory enables early laboratory and field testing of FRMCS technology.
Prof. Dr. Gerd Strohmeier, President of Chemnitz University of Technology: "At Chemnitz University of Technology, we are extremely pleased to be able to research and develop the rail travel of the future in Annaberg-Buchholz - our future branch office - with strong support from the Federal Government and the Free State of Saxony. With the funding of around ten million euros, for which we would like to express our sincere thanks, the 5G network can be built along the railroad line between Annaberg-Buchholz and Schwarzenberg as the core of a state-of-the-art research infrastructure. This will enable scientists at Chemnitz University of Technology, in close cooperation with the city of Annaberg-Buchholz, Deutsche Bahn AG and other network partners, to research and develop technologies and applications in the fields of communication technology, control and safety technology, artificial intelligence, drive technology, sensor technology and human-technology interaction, in order to make highly relevant social and economic contributions to the highly automated and sustainable rail operations of the 22nd century."

Background: Smart Rail Connectivity Campus (SRCC)

At the heart of the SRCC is the establishment of a research campus in Annaberg-Buchholz. In this model project, which is unique in Europe, highly automated driving on standard-gauge rail tracks and ecological driving, especially with hybrid drives, are to be further researched and innovative mobility technologies brought to approval and market launch. The SRCC is one of two collaborative projects with which Chemnitz University of Technology was successful in 2019 within the highly competitive Federal Ministry of Education and Research (BMBF) program WIR! - Change through Innovation in the Region. In addition to the SRCC, the university and its project partners received funding for the project Smart Composites ERZgebirge (SmartERZ).

wissenschaftliche Ansprechpartner:
Prof. Dr. Uwe Götz, Chemnitz University of Technology, Vice-President for Transfer and Continuing Education, e-mail ptw@tu-chemnitz.de, phone +49 0371/531-10030.

URL zur Pressemiseitellung: https://www.youtube.com/watch?v=pfbpEvoEOFY
Federal Transport Minister Andreas Scheuer virtually handed over the funding notifications.
BMVI