Universität Stuttgart

Press Release
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Innovation Program "Straße"

Federal Minister of Transportation supports research project "Betonfahrbahn 4.0" (Concrete Roadway)

On 7th June 2017 the parliamentary state secretary of the federal minister for transport and digital infrastructure, Norbert Barthle, visited the Institut für Werkstoffe im Bauwesen (IWB, Institute of Construction Materials), Institut für Systemdynamik (ISYS, Institute for System Dynamics) and Materialprüfungsanstalt (MPA, Institute for Materials Research and Testing) of the University of Stuttgart and handed over funding notices from the innovation program "Straße" of the Bundesanstalt für Straßenwesen (BASt, Federal Highway Research Institute). The support comprises a grant amounting to 4.7 million Euros and goes to the research project "Betonfahrbahn 4.0" of the affiliated partners of the University of Stuttgart, CAVEX GmbH & Co.KG, Otto Alte-Teigeler GmbH, Wirtgen GmbH, Liebherr GmbH, Heinz Schnorpfeil Bau GmbH as well as Lehmann & Partner GmbH.

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Hand-over of the funding notices at the Institut für Werkstoffe im Bauwesen (IWB) from the University of Stuttgart. Photo: University of Stuttgart/Max Kovalenko

At the hand over of the funding notices at the Vaihingen Campus of the University of Stuttgart state secretary Barthle explained: "The infrastructure is the central nervous system of our state. Extreme weather conditions and a growing amount of traffic, however, create problems for concrete motorways. The targeted digital link in concrete road construction can contribute towards constructing our roads more efficiently and minimising the maintenance costs. This also contributes towards more road safety and fewer building sites. That is why we are supporting the research on innovative concepts like the project "Betonfahrbahn 4.0."

Professor Harald Garrecht, Head of IWB and Managing Director of MPA at the University of Stuttgart, was delighted about the support and said: "Research and Development in the field of concrete road construction are time and cost-intensive. Only through an interdisciplinary network and an intensive exchange between science, construction machine manufacturers, construction companies, engineering service providers and road construction authorities will we be able to successfully pursue the goal of organising today's system of concrete roadways through innovations in such a way that these comply with the future requirements of the utility and safety value of the federal trunk road network. The support for our joint project "Betonfahrbahn 4.0" represents an important milestone on the path to developing the future road infrastructure safely, reliably, in a low-noise way, intelligently and sustainably."

The joint partners will receive the support in order to advance the research in the field of "Innovations in road construction – process-reliable construction of roads in concrete construction". In the research project theoretical and technical foundations for a targeted, digital network in concrete road construction are to be created in accordance with the concept "Industrie 4.0". The task is to determine and provide contents relevant in terms of building materials and procedures for the digital communication and utilisation in the process chain. Further focal points are represented by the systematic process analysis and optimisation.

Ultimately a clear increase in process reliability and the manufacturing quality of concrete road paving is to be achieved. A decrease in the life cycle costs for the field of road infrastructure as well as an increase in the availability and safety for the road transport mode can be derived from this.

Further information:

www.bast.de/forschungfoerderung