

The joint research project “Bauen 4.0” – Towards more sustainability and productivity on construction sites

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The construction site of the future is the focus of the joint research project “Bauen 4.0”. It is characterized by universal and cross-interface digitalization, from construction planning and construction site logistics through to networking technologies and the implementation of various automation levels on the machines.

Compared to today, significant increases in productivity and efficiency can be achieved. Funded by the Federal Ministry of Education and Research (BMBF), thirty project partners work for three years to develop innovative, powerful and flexible machine and communication technologies. To achieve this goal, various demonstrators will be created in three main topics until end of July 2022, which will interact on central construction task at the end. As part of the joint project, a demonstration and development platform for Industry 4.0 solutions is being developed in construction site operations.

This contribution will provide an overview of the main topics covered by the joint research project. Using developed solutions, it will be shown how this can further improve sustainability and productivity on construction sites. In addition, the focus on the main topic machines will be deepened with the topics of connectivity and services, such as machine monitoring, condition diagnosis and job management.