

BIM for Higher Education – Intermediate report from the ERASMUS+ BIM4HEI project

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SUMMARY

Many teachers at university level have found that there are serious shortcomings in teaching on the digitization of the building industry. This concerns both, the challenges of new technologies and the internationalization in the management of construction projects. The domains architecture, engineering and construction (AEC) are currently in a paradigm shift from plan-based to model-based work (BIM). The higher education (HEI) at universities must respond to this. The ERASMUS+ BIM4HEI cooperation between European educational institutions, knowledge is being exchanged, joint action strategies are developed and the teaching materials created can be mutually assessed. The practical relevance is guaranteed through the involvement of professional organizations from the construction industry.

The construction industry has a very high level of interest in digitally competent engineers and in professional training. The Building Information Modeling (BIM) method offers the ideal core of interdisciplinary and internationalized teaching. BIM promotes the collaborative planning, building and operation of the built environment. At its core is the digital building model, i.e. the digital twin of planning, construction and operation.

Most of the activities and results from the EU funded project are intellectual outputs which will be maintained after the project end. The partners from Czech, Portugal and Germany wish to integrate the results into their AEC HEI curricula. The produced contents can also be used for the life-long learning by AEC professionals, promoted by associated partners and similar professionals' boards or associations of the AEC section in other countries.

This article first presents the objectives and set-up of the BIM4HEI educational project. Then individual concrete results, mainly material for educational institutions are presented. These are

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lecture guide and training activities and a planned MOOC platform. On the one hand, the specification of the technical topics is in the foreground of all lecture guides. On the other hand the topics are connected with activating teaching methods. The project partners think BIM in a very interdisciplinary way. This includes the integration of surveying and geoinformation into the BIM education.

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