"The state-funded project BIMiD contributes to make use of a large improvement potential in the German construction and real estate industry. This is only possible thanks to intelligent, consistent and lossless establishment and sharing of building information. The many small and mediumsized enterprises in Germany are the ones in particular that can become more efficient and internationally competitive. Thanks to the BIMiD project it is possible to demonstrate this process-oriented, integrated and highly collaborative planning method based on practical implementations."

Siegfried Wernik, Architect, Executive Director of building SMART -German Speaking Chapter

"The state-funded project BIMiD will facilitate the entry into the field of integrated planning and will help the German construction and real estate trade and its characteristic medium-sized businesses to catch up internationally. With Building Information Modeling (BIM), substantial improvements in efficiency and quality along the entire value chain are possible."

Prof. Dr.-Ing. Klaus Sedlbauer, Director of the Fraunhofer Institute for Building Physics IBP and Professor of Building Physics in the Faculty of Civil, Geo and Environmental Engineering at the Technical University of Munich (TUM)

### **Project Partners**



◆ Fraunhofer Institute for Building Physics IBP. Holzkirchen and Stuttgart

Project management, preparation for and support to the reference building developments, sustainability certification considerations

- ◆ Fraunhofer Institute for Industrial Engineering IAO, Stuttgart Tools and methods for collaboration
- ◆ AEC3 Deutschland GmbH, Munich Standardization of business processes, data requests and interfaces
- University of Mannheim, Institute for Small and Medium Sized Companies (ifm) Accompanying research in the fields of social sciences and business
- ◆ Jade University, Campus Oldenburg, Department of **Construction and Geoinformation** Didactic rework of the findings from the reference projects
- buildingSMART German Speaking Chapter, Berlin Public relations, event organization and internal project communication

# MARKT KRÄFTE

Didactic rework to improve teaching and advanced training

Public relations and event organization

### Contact



Peter Noisten Fraunhofer Institute for **Building Physics IBP** Location: Holzkirchen

Fraunhoferstraße 10 D-83626 Valley Germany Phone: +49 8024 643-653 Fax: +49 8024 643-366 E-mail: peter.noisten@ ibp.fraunhofer.de

### **Press Contact**

Gunther Wölfle buildingSMART -German Speaking Chapter Location: Dresden

Marienstraße 20 D-01067 Dresden Germany Phone: +49 351 37 41 339 Fax: +49 351 47 969 832 E-mail: gunther.woelfle@ buildingsmart.de

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German building and real estate industry

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You will have the possibility there to register for the BIMID







# **BIM Reference Project** in Germany

A practical pilot project for the

www.BIMiD.de

### Background

The construction and real estate industry in Germany is characterized by many small and medium-sized enterprises (SMEs). Due to the unique nature of each and every construction project, new project-based consortia are continually formed. As a result, members of a consortium must coordinate their business processes with each other over and over again.

All this comes along with the international challenge of an everincreasing specialization and fragmentation of the planning processes which results in an increasing complexity of the projects and many different interdependencies and interactions. Not to mention persistently increasing time and cost pressures.

Growing technical and organizational requirements on the construction projects make the traditional planning methods always less and less adapted for management and control. For this reason research has been being conducted intensively for many years now to develop new IT-based planning methods. These new methods are summarized under the term "Building Information Modeling"(BIM).

Whereas the BIM method is already widely spread and successfully applied in the USA, in the UK or in Scandinavia, Germany has a lot of catching up to do. It is especially the many SMEs – typical of Germany's construction and real estate industry – that need to be convinced of the great potentials of BIM for designing, constructing and operating buildings.



Selection, preparation and support to the reference building projects

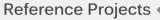
## Strategic Goals

The goal of the state-funded project BIMiD is to demonstrate exemplarily the BIM method based on several practical building developments. Lessons learned from these demonstrations are meant to make BIM a success especially among small and medium-sized enterprises in Germany.

The focus in the joint research project BIMiD is on two practical building developments (so called "reference projects"), where BIM processes and standards are being applied, developed and scientifically evaluated starting from the very beginning of the design and construction phase. Besides technical issues (such as standardization of interfaces) and methods of application, BIMiD also adresses the topics of work organization, contract design and user acceptance.

The following three aspects are in the focus of BIMiD:

- Promotion of a rather process-oriented mode of operation in the planning and building industry as a precondition for successful applications of the BIM method.
- Identification and appropriate consideration of human factors which are so far counterproductive for a successful application and diffusion of BIM.
- Didactic rework of the findings in order to improve advanced training as well as to develop BIM-specific study paths.



As a result of the selection process, two building developments have been selected to be monitored during their design and building phases:

- ◆ The central BIM reference project: New development of the "Office building, Haus H", for Volkswagen Financial Services AG in Brunswick A five-story office building for 400 state-of-the-art office workstations and large training areas. Architect: Gaudlitz Architekten GmbH, Wolfsburg Start of construction: April 2015
- Second BIM reference project: New development of the "Office and commercial building Pionierkaserne" for a private developer in Ingolstadt – A four-story office and commercial building for shops, restaurants, offices and clinical practices, with underground car park. Architect/Engineer: pbb Planung + Projektsteuerung GmbH, Ingolstadt Start of construction: July 2015







Standardization of business processes, data requests and interfaces



Accompanying research in the fields of social sciences and business