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Press Release

BAU 2017 presents

KEY TOPICS FOR THE FUTURE OF BUILDING

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BAU 2017 is getting ready to open its gates with four key topics that are critical to the future of building. Many exhibitors will orient their presentations to those topics and have corresponding solutions on display. In the fair's forums, architects, building engineers and project developers will explain and discuss various aspects of these key topics. And in BAU's special shows, they will be demonstrated using examples of various products and projects.

Intelligent facades

Over the centuries, facades, supporting structures, materials and their primary protective properties have been inseparable. The facade was a likeness of the building structure behind it. It was an indicator of the building's use, spoke volumes about its owners, their social status, their wealth and, of course, their sense of aesthetics. This monochrome picture of facades has evolved considerably.

Today facades are multifunctional, innovative shell systems that must and can meet complex requirements. Technological progress in the construction industry is one of the essential aspects as we move toward intelligent and increasingly complex building envelopes. It is something that architects, technical planners and building-material manufacturers must take into account. Protection against rain and weather are the basic functions that the building envelope must continue to perform.

Optimized for energy efficiency—the facade plays the primary role here—it is then augmented with automated control systems for added efficiency and greater comfort. Sustainability and recyclability are becoming mandatory, as are air-conditioning using thermoactive elements and the use of PV elements. The building envelope of the future will be used as a media facade—it interacts with the user and its urban surroundings and can even be used as a leasing model.

Digital design, construction and management

Construction and building technology in particular are currently changing at a dizzying pace. While construction followed the same set of rules for hundreds of

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years, the technical innovations of the last decade have given rise to an unimagined variety of intelligent building products on the one hand and a new type of architecture (re)production on the other.

Adapted from automotive and machine manufacturing, digital planning and manufacturing processes make it possible to produce in large series as well as minimum quantities of just one unit. Customized building elements are now possible—with the type of precision and manufacturing quality that is generally only found in lighthouse projects. But in architecture of the future, digital design technology, although still not entirely transparent, will set new standards. Computer-aided manufacturing—from design and construction-site logistics to building operation and recycling—has enormous economic potential for the construction industry and gives planners, building owners, users and re-users a great sense of security. Given these imminent far-reaching changes in the international construction industry and the inevitably resulting unfamiliar building culture, process control and the development of new processes are more important than ever. But who defines these building processes? Where will nontransparent technological options be bundled and structured to enhance overall quality and then integrated into the construction value chain? And what are the advantages as well as the risks of a digitalized planning, building and operator chain? Those are the latest critical issues.

Smart buildings

The digitalization and networking of all technology in buildings will also make quantum leaps possible in energy conservation. Without them, it would be impossible to reach the ambitious CO₂ targets that politicians have set.

In the future, building control systems will be able to predict the residents' behavior. Networking the residents' mobility profile with the buildings' energy requirements and general conditions such as weather, sunlight and temporary electrical consumption—e.g. for household appliances—makes it possible to achieve optimization potential that would be inconceivable with this level of complexity.

At the same time, a new generation of people is growing up, and they consider the extensive use of digital services completely normal. This new generation will discover its own focal points such as convenience and security. A smart building has so much more of them to offer than was even imaginable 25 years ago, when the digitalization of building engineering began. In the future, a comfortable room temperature will set itself without the residents having to remember it when they get home from vacation. Doors will automatically open as soon as a resident approaches and then lock themselves again when he leaves the

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apartment or building. Lights will switch on before a motion sensor can even react, mailboxes will send a text message when the mail arrives and washing machines will use the lowest electricity rate. If we even have to pay for electricity at all, because the smart building of the future will also be energy self-sufficient. The building itself will become an "Internet of things" that is constantly connected with the residents and the rest of the world.

Living and building 2020

The stage is already being set for what our cities and communities will look like in 25 years. What is built today creates space for living and working over the next few decades. That is why what we need today is room for tomorrow. In the future, working and living will be networked much more strongly and occur flexibly in various locations and configurations. Today, temporary teams in "co-working spaces" collaborate on projects of limited duration. In the future, working will no longer depend on where a company is physically located. As a result, where people live will no longer be selected based on their employer's location. That is also creating a different understanding of mobility. Instead of just faster and further, in the future people's movements will also be described by attributes such as closer and quieter. That is only possible if the place that we live can sometimes also be the place that we work.

Soon the construction industry will be in a position to build 400,000 and more apartments per year. In a few years, this enormous construction volume will become an integrative part of a productive city that makes it possible to live and work in the 21st century.

About BAU

BAU, the World's Leading Trade Fair for Architecture, Materials and Systems, is the biggest and most important event in the sector. The next BAU takes place from January 16 to 21, 2017 at the Messe München exhibition center. Around 2,000 exhibitors from more than 40 countries and approximately 250,000 visitors from all around the world are expected to take part.

On display at BAU on 180,000 square meters of exhibition space—for years all the available space has been fully booked—are architectural solutions, materials and systems for commercial and residential construction and for interior fit-out, for both new-build and renovation and modernization. Every two years this event brings together market leaders from the sector to participate in a unique international display of competence spanning all the construction trades.

BAU is also the world's largest trade fair for architects and construction engineers, attracting more than 60,000 design professionals. The exhibits at the fair are organized according to building material and also product and theme area.

The many attractive events in the supporting program, including high-caliber forums with experts from all over the world, round off this industry showcase.

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Messe München

Messe München is one of the world's leading trade-show companies. It organizes some 40 trade shows for capital and consumer goods and key high-tech industries in Munich and abroad. Each year more than 30,000 exhibitors and some two million visitors take part in events held at the Messe München trade-fair center, the ICM – Internationales Congress Center München and the MOC Veranstaltungszentrum München. In addition, Messe München organizes trade shows in China, India, Turkey, South Africa and Russia. Messe München has a global business presence with affiliates in Europe, Asia and Africa and more than 60 foreign representatives serving more than 100 countries.