

ANALYZE BEFORE YOU DIGITIZE! RIGHT MIX, REAL VALUE.

“THE FUTURE BELONGS TO
INTELLIGENT BUILDINGS”

“Right Mix, Real Value” is the motto chosen by the consulting, planning and project management company Drees & Sommer for the Expo Real, an international trade fair for property and investment. What exactly does this mean, and how far has digitization progressed in the real estate industry? The interviewer Cornelia Frey asked the Executive Board members Dierk Mutschler and Steffen Szeidl.

CORNELIA FREY: MR. MUTSCHLER, MR. SZEIDL,
YOUR STAND AT THIS YEAR'S EXPO REAL TRADE FAIR IS
BLACK AND WHITE. WHY?

DIERK MUTSCHLER: This draws attention to the fact that in the digitization of the real estate industry there is no ‘either-or’ alternative, no simple black or white. It is no good to simply opt out of digitization, and the motto ‘High-tech or bust’ is not very sensible either. After all, digitization is not an end in itself. Owners, operators and users must be able to derive practical benefits from digital developments. To ensure this, a digitization strategy is essential, and it should be included in the very first concept design and planning phase for all building projects.

HOW EXACTLY DO BUILDINGS BENEFIT FROM SUCH A
DIGITIZATION STRATEGY?

DIERK MUTSCHLER: We already have energy and sustainability concepts for every single construction project. A digitization concept should be just as natural. The future belongs to intelligent buildings. From the outset, clients should therefore consider who the later users will be, what they expect and what the building should later achieve by digital means. How digitized, networked and smart should the building be? If we do not consider these questions long before we begin construction, and if we do not plan and install digital structures and processes, we will have to invest in expensive and time-consuming extra work.



Dierk Mutschler and Steffen Szeidl,
Board members at the Drees & Sommer SE

**DREES &
SOMMER**

HOW MUCH ARE THE EXTRA COSTS IF CLIENTS WANT TO CREATE A SMART BUILDING?

STEFFEN SZEIDL: At present, the extra costs for digitization are about 2 to 3 percent of the total investment. The more a client banks on digitization in its future buildings, the lower the proportional cost of development and consulting will be, as a matter of course. If we miss the trend now, we will lose considerably more in our later return on investment.

WHAT DO IDEAL DIGITAL CONSTRUCTION PROJECTS LOOK LIKE?

STEFFEN SZEIDL: Ideally there is a digital twin which accompanies the building through its whole life cycle. Starting with the use of BIM (Building Information Modeling) at the planning stage, then 3-D laser scanning in the execution phase and smart building and cyber-security concepts in the later use of the building, which can sensibly draw on the BIM data from the planning stage. Finally, in the deconstruction or demolition process, we then have exact data about the building materials and substances which can be recycled. This means that there is an intelligent interaction between all planning, building and user data. Here, we are already supporting exciting projects such as The Ship in the city of Cologne, the Digital Campus Hammerbrooklyn in Hamburg and the cube berlin in the middle of the German capital.

WHAT IS SO SPECIAL ABOUT PROJECTS LIKE THE SHIP, HAMMERBROOKLYN OR CUBE BERLIN?

STEFFEN SZEIDL: Above all that the user and his needs are the primary concern in the development of these buildings and that people are the model on which the digital concept is based. The sensors correspond to our sensory organs, such as the Brain which consists of artificial intelligence, abbreviated as AI. The Brain learns from the operational data, the users and the environment, and on this basis it makes suggestions for improvements. For instance, unused spaces in the building will not need heating, ventilation or lighting – nor do they need unnecessary cleaning. In keeping with the sharing economy approach, it is also possible to arrange multiple letting of workplaces or parking spaces. Furthermore with the use of an app, tenants are able to control parameters such as indoor climate, access control, automated booths for self-service collection of parcels and much more. However the focal point is the ability to recognize and generate new business models on the basis of data, analysis or new applications. This approach therefore goes far beyond the conventional steps of planning, building and operation.

TO WHAT EXTENT HAS DIGITIZATION IN THE REAL ESTATE INDUSTRY BEEN RESTRICTED BY LIMITATIONS?

DIERK MUTSCHLER: In general, the widespread use of digitization in practical construction projects is mainly frustrated by

stagnation at the building execution stage. In spite of the digital applications which are normally used at the planning stage, most building sites are still characterized by outdated and inefficient processes. Then it only takes a few exterior factors to spoil the positive effects of digitized planning. For example, if the whole construction process is halted by bad weather, even the best digital technology cannot achieve much. The areas that fail in an analog process will also fail digitally. However if the organization, processes and procedures are well designed, digitization offers a number of possibilities. This brings exciting potential for future business models because completely new approaches are conceivable with digitization.

ON THE SUBJECT OF NEW BUSINESS MODELS: PERHAPS WE COULD LOOK AT THE DIGITAL ASSET CHECK WHICH DREES & SOMMER HAS DEVELOPED JOINTLY WITH BULWIENGESA – HERE YOU ARE ALSO CALLING ON EXTERNAL EXPERTISE...

STEFFEN SZEIDL: That is true. Under www.asset-check.de investors, owners, project developers and banks can obtain a fast, inexpensive, sound and independent valuation of properties at the push of a button. Our cooperation partner bulwiengesa is an expert in market data – and we are experts in building costs. This is an example of cooperation with a successful and established company with a long-standing track record. Nevertheless similarly, we also link up with promising young companies such as InterfaceMA or Thing Technologies. We invite startups, creative minds and entrepreneurs to pitch their ideas on our website via the Start-It-Up tool. If both parties are enthusiastic about the ideas we offer space, mentoring, the right atmosphere, capital and practical projects to test new business models together and develop them further.

DIERK MUTSCHLER: In the area of research cooperation, we are also very active in the Smart Logistics cluster on the RWTH Aachen University campus, which is regarded as Germany's answer to Silicon Valley. We create models to simulate the interaction of various hardware and software elements even before the later building is taken into service. We also conduct extensive security tests, including the question of vulnerability to hacker attacks.

IN THE LIGHT OF THE ENORMOUS SPEED OF DIGITIZATION – DOES THIS MEAN THAT MOST OF US WILL BE REPLACED BY TECHNICAL SYSTEMS IN THE NEXT 10 YEARS?

DIERK MUTSCHLER: No, of course not. Although it is true that boring, monotonous and repetitive tasks even in our industry will increasingly be standardized, digitized and automated. This will, of course, change job requirements. There will be an increasing need for digitization consultants in the Real Estate industry, people with expertise in both analog construction disciplines and digital methods who will be able to focus on the whole life cycle of the building.