

Media Release

August 9, 2018

***cube berlin*: Smart Commercial Building Shows How Office Buildings Can Learn To Think**

At the end of 2019, the most highly digitized office building – *cube berlin* – will be completed in the heart of the city. This smart commercial building will learn from its users by a central ‘brain’ and adapt to their individual needs. The client, real estate company CA Immo, is investing around EUR 100 million in the new building, which was designed by 3XN Architects. Experts from Drees & Sommer are providing support to CA Immo with the implementation of the integrated digitization plan for the building, in addition to providing general technical planning services for the project, such as façade engineering, energy design and green building certification.

What is special about *cube berlin* is not just its dramatic architectonic shape, but above all that it has artificial intelligence (AI), in other words, a ‘brain’. Following the highest IT security standards, it establishes an intelligent link between all technological equipment and sensors along with planning, operational and user data for optimal control of the processes that take place in the building. The ‘brain’ learns from the data connected with the operation, the users and the environment, and makes suggestions for improvements. For instance, unused spaces in the building will not need heating, ventilation or lighting. The system will recognize this and switch off the equipment in these areas. Tenants in *cube berlin* can also use the specially developed app to enable them to operate the air conditioning, access controls, parcel booths and much more themselves.

Extensive Tests in the Aachen Demonstration Factory

Two years before the building is due to be completed, CA Immo has already begun to put into operation the hardware and software for the smart commercial building and to conduct extensive tests with support from Drees & Sommer. The tests are being carried out at the Demonstration Factory in the Smart Logistics Cluster at the campus of RWTH Aachen University, now considered the Silicon Valley of Germany. Matthias Schmidt, Head of Development Germany at CA Immo, commented: ‘In Aachen, the interaction between the different hardware and software components used for digitization can be represented in the model before *cube berlin* is even commissioned, and tested using different criteria. For instance, digitization experts are investigating the compatibility of the products.’ Particular attention is given to the issue of cybersecurity, he added.

Media Release

August 9, 2018

Analysis of User Behavior Enables Efficient Operation

Matthias Schmidt explained: ‘The question constantly facing us as portfolio holders is how we can continue to meet tenants’ needs and offer attractive spaces in the future. With digitized buildings such as *cube berlin*, we are creating added value for tenants. We are providing a management cockpit that gives information on the key data and any changes in it. This includes extensive information on energy consumption, user behavior, and much more. Tenants thus experience not only the user interface of the app, but also the operational level in the background, and they can even intervene, for instance, to optimize the use of the space. The software-based digitization concept is modular in design, so it can be implemented by us at minimal cost in established buildings.’

3,750 Sensors Put Users’ Needs First

Design thinking processes can be used to define the requirements of users of a smart commercial building. Klaus Dederichs, Head of ICT and Associate Partner at Drees & Sommer SE, explained: ‘The smart commercial building is a new type of property. Users and their needs are at the forefront of the development process. The digital conceptual design process is modelled on people. While the sensors represent the sensory organs, the AI-enabled system platform of *cube berlin* is the ‘brain’. We have selected around 3,750 suitable sensors on this basis.’ Smart, digital technologies are put together in different combinations depending on the particular building or project, and they make it easier for users to operate the building. They offer possible new uses such as indoor navigation, tracking of people and objects, and access control using facial recognition.

Users of *cube berlin* will be helped by a special building app created by Thing Technologies, which only uses personal data to the extent permitted by the European Union General Data Protection Regulation (GDPR). Klaus Berberich, co-founder of the proptech company Thing Technologies, with headquarters in Frankfurt am Main, commented: ‘To maximize acceptance, the app is entirely aimed at creating added value for the user, and offers everyone a wide range of options and simplifications. The fact that the individual users decide for themselves how they are going to use the app provides additional motivation for us.’

Media Release

August 9, 2018

The Working Environment of the Future in a Smart Glass Cube

The eye-catching building was designed by 3XN Architects in Copenhagen. With a gross floor area of 19,000 square meters, the eleven-story commercial building offers users flexible interior design concepts for future-proof working environments in areas of between 300 and 1,400 square meters per floor.



From the Demonstration Factory to reality: Demonstration Factory at RWTH Aachen ©Drees & Sommer (left) and artist's impression of cube berlin on Washingtonplatz ©CA Immo

* * *

Drees & Sommer: Your Innovative Partner for Consulting, Planning, Construction and Operation

The leading European consulting, planning and project management enterprise, Drees & Sommer has supported private and public clients and investors for almost 50 years in all aspects of real estate and infrastructure – both analog and digital. The result is cost-effective and sustainable buildings, profitable real estate portfolios, people-oriented working environments, and visionary mobility concepts. The company's 2,800 employees in 40 locations around the world work in interdisciplinary teams to provide support for clients from a wide variety of sectors. All the services provided by the partner-run company take into consideration both economic and ecological concerns. Drees & Sommer calls this holistic and sustainable approach 'the blue way'.

Nadja Lemke
Head of Media Relations and International Communications
phone +49 (0)711 1317 177 • mobile +49 (0)172 7699566
nadja.lemke@dreso.com

Markus Diekow
Head of Corporate Communications Germany
phone +49 (0)69 60627 115 • mobile +49 (0)172 6795948
markus.diekow@caimmo.de

Media Release

August 9, 2018

CA Immo: Office Specialist in the Capital Cities of Central Europe

CA Immo Germany is a wholly-owned subsidiary of CA Immobilien Anlagen AG (CA Immo). The company is one of the leading central European real estate companies and is listed on the Vienna Stock Exchange's blue-chip index ATX. Its core business is the letting and development of commercial real estate, primarily in the office segment. Founded in 1987, the company has real estate assets of around EUR 4.3 billion in Germany, Austria and Eastern Europe.

In addition to managing established buildings, in Germany CA Immo concentrates on the development and realization of new building projects, including entire urban districts. To reflect regional requirements and peculiarities, CA Immo Germany has separate offices in Berlin, Munich and Frankfurt am Main. Its best-known completed buildings in Germany include the Skyline Plaza in Frankfurt am Main, the Tour Total skyscraper and John F. Kennedy House in Berlin, as well as Skygarden and Kontorhaus in Munich. CA Immo Germany is also currently developing the Europacity area in Berlin, the Europaviertel district in Frankfurt am Main, the Zollhafen district in Mainz, and the Marina Quartier in Regensburg, in addition to the Munich districts of Baumkirchen Mitte, Ratoldstrasse and Freimann.

Through its subsidiaries omniCon and Deutsche Realitäten (DRG), CA Immo also has recognized expertise in the fields of construction and real estate management. Both subsidiaries also offer their range of services to third parties.