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Smart Buildings Challenge: ECE implementing innovative solutions for smart shopping centers

ECE is working with start-ups to help make properties smarter as part of the "<u>Smart Buildings</u> <u>Challenge</u>" which the company is carrying out together with its partners Bosch, Microsoft, TÜV Süd, and Deka Immobilien. ECE will implement a total of four innovative solutions for smart buildings and test them in real-world situations. The four tech-start-ups were selected from a total of 26 participants in the Smart Buildings Challenge and were presented as the winners of the competition today at Bosch Connected World in Berlin, one of the leading conferences on digital transformation and the Internet of Things.

The four start-ups selected as the winners of the Smart Buildings Challenge will now implement their concepts and put them to the test at the Ettlinger Tor shopping center in Karlsruhe which is operated by ECE.

- The Spanish start-up Cubelizer focuses on "smart space flow analytics" and will use a sensor network based on artificial intelligence (AI) to measure the paths taken by shoppers in the mall in compliance with privacy regulations, visualize them in real time, and prepare the data so that it can analyzed.
- The start-up Aedifion, founded in 2018, develops solutions for the cloud-based operation and optimization of building automation systems, and will install a smart metering system that will automatically track, analyze, and optimize energy consumption at Ettlinger Tor.
- Thing Technologies' "smart automated building" approach will be used to control and analyze the center's heating, cooling, and ventilation technology on the basis of the other two installed tools, and thus propose measures to increase efficiency.
- And finally, Holisticon will set up a "smart building cockpit" a central dashboard that presents the collected building data visually in a manner specifically tailored to the target and user group, making it possible to conduct comprehensive energy consumption analyses.

ECE is playing a key role in supporting the projects as a partner in the planning, design, and operational implementation at an ECE-managed shopping center. The company is using this project as an opportunity to test and further exploit the many ways that digitization can help increase the efficiency of properties as well as to gain new insights into their use in real-world operations.

Alexander Otto, CEO of ECE: "Many buildings, particularly existing properties, are largely still analog and not digitally connected in any meaningful way today. Yet innovative digital

solutions offer tremendous potential to optimize building operations, increase their efficiency, and as a result, reduce workloads, cut costs, and save energy for owners, users, and operators. Through the pilot projects we're carrying out at the Ettlinger Tor center in Karlsruhe, we want to test four start-ups and their promising new technologies and see exactly how digital solutions can be used to improve building performance."

The objective of the Smart Buildings Challenge, a joint initiative with Bosch and supported by the non-profit network <u>Industrial Internet Consortium</u>, is to identify, promote, and ultimately implement innovative digital technologies designed to improve building performance in dayto-day operations. The underlying idea is to use sensor and measurement technology and other digital applications to make buildings more energy-efficient, user-friendly, and sustainable.

About ECE

ECE develops and operates shopping centers and carries out large-scale real estate projects such as the construction of corporate headquarters, office buildings, industrial buildings, logistics centers, hotels, and urban districts. With approximately 195 shopping centers under management (including approximately 40 shopping centers in international markets and more than 55 specialty shopping centers managed by MEC METRO-ECE Centermanagement) and activities in twelve countries, ECE is the European leader in the shopping center segment. The shopping centers operated by ECE on behalf of their respective owners have a total market value of around 32.3 billion euros. About 4.1 million customers visit ECE's shopping centers every day, where approx. 20,000 retail partners generate total annual sales of around 22.3 billion euros on a total sales area measuring approximately 7 million square meters. In addition, ECE has already developed around 1.2 million m² of office space and more than 1.7 million m² of logistics space and has already developed or is planning to develop more than 3,100 hotel rooms and more than 2,900 apartments. Founded in 1965 by mail-order pioneer Professor Werner Otto (1909-2011), ECE is still owned by the Otto family and has been managed by Alexander Otto, the founder's son, since the year 2000. As a family business with a long-term focus, ECE is known for its long-term partnerships, sustainable business practices, an employee-driven approach, and a broad range of social initiatives. For more information, please visit: www.ece.com

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