

TODAY'S SMART BUILDING

Optimizing the user experience through the innovation of intelligent services

Quite simply, the way buildings are being designed, built and managed is changing. In design, in construction and in building management, fundamental change is delivering unprecedented innovation and an optimal experience at every stage.

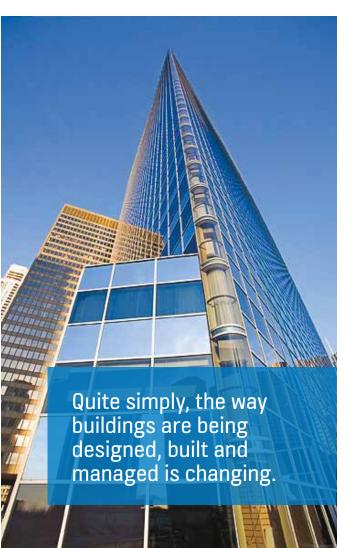
New design tools, Internet of Things (IoT) solutions and fast-emerging ecosystems have driven the transition to Smart Buildings. Unprecedented technological disruption injects technology to the forefront in planning, development and future investment.

And that's critically important in a period when customer behaviors are changing, industry structures are being disrupted and business cycles are changing. Once considered an independent division within a company, for the successful operation of today and tomorrow, technology has become the bedrock.

CAPITALIZING ON THE OPPORTUNITY

Technological disruption presents challenges, to be sure. But for those who are nimble, creative and proactive, technological disruption provides enormous opportunity for growth. Yesterday's rules no longer apply. Blockchain, artificial intelligence, robotics and IoT technology are today's trends as the science of Smart Buildings evolves.

Smart Design allows architects to use a new level of project modeling and design in their work, including the emergence of a Smart Lobby to drive a whole new customer experience. Smart Construction innovation is breaking up stagnation in construction productivity. Smart Building Management, through mobile technology, cloud computing, sensors and analyzation of vast data, is transforming the way buildings are managed.



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UNDERSTANDING A NEW MARKETPLACE

These trends are already impacting building construction in significant ways. Consider these observations:

SMART DESIGN

The way architects think, learn and work has evolved dramatically in the past decade. In **Smart Design**, sophisticated technology is injecting projects with heightened efficiencies. Based on our experience, Building Information Modeling (BIM) is being used in more than 60 percent of all building projects today. A combination of dynamic design tools, innovative output and real-time collaboration is driving new ways of working. Made possible by fully integrated technologies, the **Smart Lobby** helps express a building's unique purpose and brand, setting the stage for a differentiated customer experience. Imagine the possibilities. We're seeing a scope of innovation that has fundamentally changed the way architects design and plan new buildings.

SMART CONSTRUCTION

Considering today's maturing technology, construction productivity has not improved at the rate possible. But technology alone won't get the job done. Instead, a new approach that combines human expertise with intelligent processes and innovative technology – **Smart Construction** – is changing the way buildings are being constructed, saving time and money in the process. Advanced technology like BIM and the deep expertise of professional project managers is driving project efficiency and creating predictability.

SMART BUILDING MANAGEMENT

Advanced technology is also changing the way buildings are managed. **Smart Building Management** provides deep insight into performance of building assets, maximizing uptime and solving problems before they start. In its simplest terms, Smart Building Management protects an investment and creates an optimal first impression. It predicts potential issues, it drives an evolution in processes from proactive to predictive, and it delivers analytics to act on. For the building manager, it is the equivalent of a 360-degree view of a building assets' real-time performance.

To learn more about our KONE Smart Buildings strategy, please visit www.kone.us/smart where we feature each of our Smart Building tracks, alongside tools that help customers realize new value in our work together.



WHAT MAKES A BUILDING SMART?

- New levels of project modeling
- A powerful blend of technology and experience
- A fully integrated, harmonious environment
- Deep insight into asset performance



About the author: Larry Wash is Executive Vice President for KONE Americas and serves as a member of KONE's Executive Board. In this role, he leads a \$2 billion business that includes teams across the United States, Canada and Latin America. Larry also serves as Board President for the National Elevator Industry, Inc., a preeminent trade association for the building transportation industry. As a senior executive with

extensive experience running global organizations and a well-respected thought leader, Larry is skilled at developing strategic direction and at implementing operational improvements to profitably grow businesses.

ABOUT KONE

At KONE, our mission is to improve the flow of urban life. As a global leader in the elevator and escalator industry, KONE provides elevators, escalators and automatic building doors, as well as solutions for maintenance and modernization, which add value to the life cycle of any building. Through more effective People Flow[®], we make people's journeys safe, convenient and reliable, in taller, smarter buildings. Together with our partners and customers around the world, we help cities to become better places to live in. In 2017, KONE had annual net sales of EUR 8.9 billion, and at the end of the year close to 55,000 employees. KONE class B shares are listed on the Nasdaq Helsinki Ltd. in Finland. For more information, see www.kone.us.