

Open**Blue** Pioneers

BEEAH Group Creating one of the world's most innovative buildings and smartest workplaces



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Founded in 2007 and now with 10,000 employees, the BEEAH Group is committed to reimagining a sustainable future. By using the latest digital technologies, the organization is pioneering smarter solutions towards sustainability and redefining the benchmark for quality of life in the MENA region.

Designed by the world-renowned Zaha Hadid Architects, the new BEEAH Headquarters is powered by renewable energy. Featuring intelligent edge systems and software designed to optimize energy efficiency, the net zero energy building is the first fully AI-integrated building in the UAE and one of few to achieve the US Green Building Council's Leadership in Energy and Environmental Design (LEED) Platinum certification. BEEAH chose Johnson Controls and Microsoft to provide AI-based solutions that would:

- Personalize recommendations for efficiency to enable friction-free access and security.
- Deploy a natural language user interface to unify systems such as building management, security, and employee services.

The project challenges

- Create an attractive workspace for new generations of talent, using current and future technologies.
- Generate experiences to improve productivity to leverage new capabilities enabled by IoT, Big Data, Cloud, AI, and neuro-linguistic programming (NLP).

Creating the solution

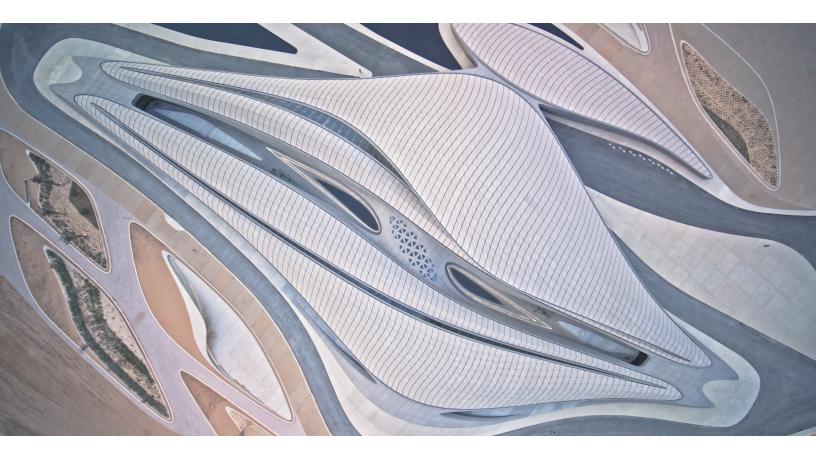
 An integrated and unified solution – based on Al and digital representation – that pairs Johnson Controls OpenBlue Solutions with Microsoft's technology stack to optimize space utilization, enhance security, provide a better visitor experience and personalize employee experience.

Meaningful outcomes

BEEAH's Al-driven headquarters enables seamless interaction within the building and powers personalized experiences for visitors, employees and management. By integrating OT and IT systems, Microsoft and Johnson Controls have enabled a frictionless building with Al-based capabilities and automated controls that improve building efficiency, employee happiness and space utilization while reducing overall operating expenses.

- Visitors receive a custom email with an individual QR code

 and a backup personalized number to interact with a
 virtual concierge to adjust meetings, order beverages, report
 issues and interact with the building. Using a virtual assistant,
 employees can book meeting reservations, adjust the
 building temperature controls and replace equipment.
- Al-based capabilities increase productivity and provide better experiences while lowering expenses such as energy utilization over time. The headquarters is fully powered by renewable energy and optimized for the sustainable use of resources.
- Johnson Controls plans to deploy technical infrastructure for the building to monitor the entire environment virtually with OpenBlue Digital Twin and IOT technologies. The solution will help BEEAH to appreciate and analyze large volumes of data to optimize building operations and drive efficiency.
- Employees and visitors at BEEAH's Headquarters will experience a diverse range of cutting-edge AI features through multiple touchpoints across various functions including HR, procurement, administration, mechanical, electrical and plumbing systems.



Results



Sustainability

- Improve quality of life of employees by 20% (from baseline)
- Create a paper-free
 environment
- WELLs certification for buildings



Productivity and comfort

- Improve productivity
 of the workforce
- Improve employee health and comfort
- Improve space utilization
- Improve efficiency of visitor experience



Efficiency

- Net zero carbon emissions within two years of operation
- Reduce energy consumption by 5%
- Reduce water consumption by 20%
- Annual recertification of LEED Platinum



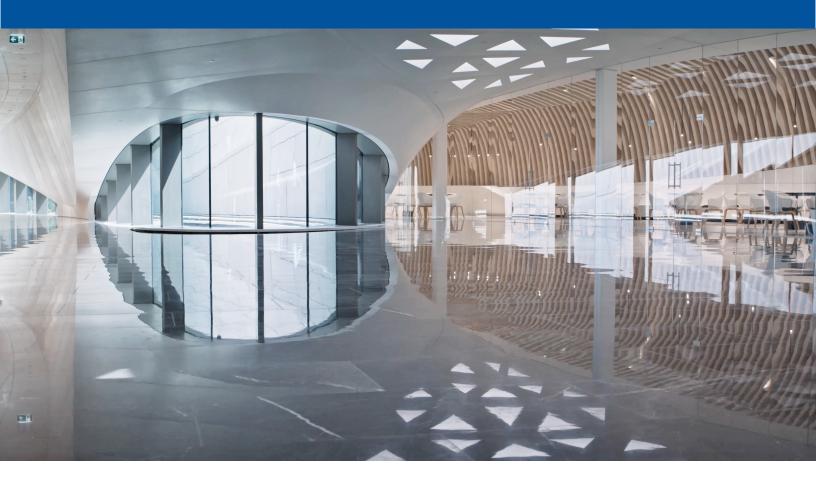
Scalability

- Integration based on open standards to sub-systems
- Drive better engagement by creating the first intelligent building that is Al-enabled



Security

- Real-time visibility across all assets in the building
- Facial recognition to provide frictionless access



Project input

Johnson Controls

"OpenBlue solutions and our building apps give BEEAH the power to make faster, intelligent data-driven decisions to run its headquarters more safely, efficiently and sustainably, and to increase productivity for the people working and visiting BEEAH's Headquarters," said Bill Jackson, vice president and president, Global Products, Building Technologies & Solutions, Johnson Controls. "In partnership with Microsoft, Johnson Controls is transforming traditional building systems with services that merge the physical and digital worlds. With this project, we showcased how cloud and Al can tap into data from physical spaces to drive better engagement with occupants to achieve new levels of efficiency and sustainability."

BEEAH

"Johnson Controls has an impressive depth and breadth of expertise in the building industry. Their strong product portfolio, innovative mindset, AI expertise and relationships with partners mean that they can deliver state-of-the-art, entirely new, Al powered smart buildings. We've witnessed how their building expertise can be applied, demonstrated in their ability to apply data science to the assets, people, and spaces within the building, creating a self-conscious environment," said HE Khaled Al Huraimel, BEEAH's Group CEO. "Bringing forward an impressive collection of use cases, Johnson Controls understands the experiences required to deliver a truly smart building. With a strong product portfolio and OpenBlue solutions, development timelines can be accelerated, and data can be seamlessly consolidated and represented to enable an advanced solution ecosystem to create an unparalleled experience and define the future of smart buildings."

Microsoft

"Together with Johnson Controls and BEEAH, we are driving the digitization of smarter, more sustainable buildings and spaces," said Scott Guthrie, executive vice president, Cloud + Al Group, Microsoft. "BEEAH's iconic new headquarters will be among the first buildings globally to have end-to-end experiences designed and built on the Azure platform. Azure is the platform that can truly integrate across all the devices, systems and services required for such a large and diverse implementation. Microsoft has been able to reduce energy consumption by 20 percent on our own campus in Redmond by using machine learning on edge devices and in the cloud, and we can't wait to see what BEEAH is able to do by applying this approach to its ultramodern new headquarters in Sharjah."



The pioneering team

Johnson Controls

Johnson Controls is a global leader creating a safe, comfortable and sustainable world. Our 105,000 employees create intelligent buildings, efficient energy solutions and integrated infrastructure that work seamlessly together to deliver on the promise of smart cities and communities in 150 countries. Our commitment to sustainability dates to our roots in 1885, with the invention of the first electric room thermostat. We are committed to helping our customers win everywhere, every day and creating greater value for all our stakeholders through our strategic focus on buildings.

Johnson Controls building technologies and OpenBlue solutions

Johnson Controls building technologies and OpenBlue solutions is making the world safer, smarter and more sustainable – one building at a time. Our technology portfolio integrates every aspect of a building – whether security systems, energy management, fire protection or HVACR – to ensure that we always exceed customer expectations. We operate in more than 150 countries through our unmatched network of branches and distribution channels, helping building owners, operators, engineers and contractors enhance the full life cycle of any facility. Our arsenal of brands includes some of the most trusted names in the industry, such as Tyco[®], YORK[®], Metasys[®], Ruskin[®], Titus[®], Frick[®], PENN[®], Sabroe[®], Simplex[®] and Grinnell[®].

For more information, Visit www.johnsoncontrols.com or follow @johnsoncontrols on Twitter to learn more

BEEAH

About BEEAH Group:

BEEAH Group is the region's leading sustainability and digital expert, renowned for groundbreaking environmental innovations and smart solutions for future-ready cities. Recognizing sustainability and technology as the pillars for a modern economy, BEEAH Group has invested in a comprehensive, full-circle strategy for the future, and expanded into the fields of renewable energy, sustainable transport, consultancy, education and technology. Raising the bar for quality of life in the region, BEEAH Group businesses continue to set industry benchmarks in sustainable, smart solutions; and has helped countries across the region in creating and executing their own roadmap for a socially responsible future. The Group is currently operational in the UAE, Egypt and KSA. For more information, please visit beeahgroup.com and connect with us on LinkedIn, Instagram, Facebook and Twitter @BeeahGroup

Microsoft

Microsoft (Nasdaq "MSFT" @microsoft) enables digital transformation for the era of an intelligent cloud and an intelligent edge. Its mission is to empower every person and every organization on the planet to achieve more.

Find the next generation of smart building technology at https://www.johnsoncontrols.com/digital-solutions

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About OpenBlue

OpenBlue is a complete suite of connected solutions that serves industries from workplaces to schools, hospitals to campuses, and beyond. This platform includes tailored, Al-infused service solutions such as remote diagnostics, predictive maintenance, compliance monitoring, advanced risk assessments, and more. A dynamic new space from Johnson Controls, OpenBlue is how buildings come alive.

