

Emirates Group unveils aviation innovation hub, Ebdaa



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[The Emirates Group](#) has unveiled Ebdaa, the high-tech aviation innovation hub, housed in what was originally the Emirates Pavilion at Expo 2020 Dubai. The name Ebdaa means creativity in Arabic, reflecting the creativity this hub is meant to foster.

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“The aviation ecosystem is changing at a phenomenal pace, driven by technology and human ingenuity. Ebdaa will continuously evolve and tap into these drivers – the latest tech, R&D and insights; customer feedback; our people’s expertise; and our thriving community of partnerships and

start-ups. It will help us design amazing experiences for our customers and employees, create tailored solutions for the Emirates Group and reaffirm Dubai's status as a hub for commercial aviation," said His Highness Sheikh Ahmed bin Saeed Al Maktoum.

"Ebdaa has been designed to help foster strategic collaboration with corporate leaders and VIPs, forge new partnerships and inspire our own people. Our intent is to excite hearts, engage minds, and explore the future of aviation together. Ebdaa has repurposed our Expo pavilion, leveraging the considerable investments we made at the time, making it a sustainable and an enduring legacy for aviation and Dubai."

The facility spans 35,520 square feet across three storeys. Ebdaa focuses on three key technologies: Robotics, AI and Web 3.0.

The region's first XR theatre

Inside Ebdaa there is a 55-seater XR theatre, the first of its kind within a corporate entity in the Middle East. A combination of an LED powered stage, XR capabilities, camera tracking and real-time 3D renders allows presenters to connect and immerse global audiences in simulated worlds.

An aviation robotics lab

In partnership with Dubai Future Labs and other global leaders in robotics, this space is both a showcase and a workspace for design, development and experimentation in social and industrial robots. The first AI-powered customer support robot was developed in-house by the robotics team here.

A VR chamber

In the VR chamber, all future immersive experiences built on MIRA, the Group's new extended reality (XR) platform, will be trialled and showcased using the latest wearables. This includes everything from headsets to haptic gloves. The first phase for MIRA included the virtualization of all Emirates cabins and galleys for crew learning.

An AI-powered Executive Boardroom

This is the conference room of the future; a purpose-built hybrid meeting space with AI technologies where executives can connect and collaborate with teams and audiences worldwide.

The IX studio

This is a circular, multifunctional room with hi-fi video, audio and presentation tech. Inside, teams can co-design new products or tap into the extensive content library to transport guests into curated worlds. This can include showcasing Emirates' aircraft by touring below-the-wing cargo and logistics elements or it can look like practicing mindfulness and meditation.

The Innovation Heritage Insights Wall

This is where travellers can explore and interact with the milestones of the Emirates Group's history that focus on innovation. They can discover little known facts, new insights, projects and achievements of the different facets within the Group, with every experience tailored for the audience.

Partnership showcase area

This space is dedicated to the Group's strategic partnerships across the aviation and technology ecosystems. It provides partners with an opportunity to showcase their latest projects and products that are shaping the future of aviation.

In addition to these futuristic spaces, Ebdaa also features:

- **A robotics café:** Visitors can relax, connect with others and enjoy a coffee or an ice cream
- **Airport of the future and innovation challenges:** This interactive zone enables travellers to understand how their choices in technology can impact aviation operations and passenger journeys. There are six challenges ranging from sustainability to improving the onboard experience.
- **A smart collaboration room:** This space is for brainstorming and co-creation using smart devices. In the smart room, lighting, privacy and climate can be easily controlled.

Ebdaa builds on the legacy of the Emirates Pavilion where the design is modelled after an aircraft's wings taking flight, with 24 aluminum-clad fins that curve around two sides of the building structure.

It was built using the latest fabrication and building techniques. It also features sustainable design elements, including integrated solar arrays, sustainable off-site construction, responsive solar shading and aesthetic landscaping indoors and outdoors. The pavilion embraces a number of sustainability principles, including using reusable and recyclable materials, and design solutions to reduce energy and water consumption. The interior's bright, modern design is flooded with natural light and creates an ideal backdrop for immersive experiences.