Ministry of Industry and Advanced Technology and EDGE Sign MoU to Establish Industry 4.0 Enablement Centre



The Ministry of Industry and Advanced Technology (MoIAT) and EDGE have signed a memorandum of understanding (MoU) to establish the UAE's first Industry 4.0 Enablement Centre aimed at promoting, enabling, and supporting the digital transformation and the adoption of Industry 4.0 technologies across the country's manufacturing sector.

The Ministry and EDGE will explore how the Enablement Centre can leverage what has been achieved by the EDGE Learning & Innovation Factory (LIF), a state-of-the-art learning, innovation, and demonstration centre for Industry 4.0, operational excellence, and advanced technology. Its offerings include learning, innovation, and demonstration to the wider industrial ecosystem.

The agreement was signed in the presence of His Excellency Dr. Sultan Al Jaber, UAE Minister of Industry and Advanced Technology, Her Excellency Sarah Al Amiri, Minister of State for Public Education and Advanced Technology, His Excellency Faisal Al Bannai, Chairman of the Board of Directors, EDGE, and Mansour AlMulla, Managing Director & CEO, EDGE. It was signed by Mohammed Al Qassim, Director of Technology Development and Adoption at Ministry of Industry and Advanced Technology, Reda Nidhakou, Senior Vice President of Strategy & Portfolio Management, EDGE, at the EDGE Learning & Innovation Factory, located in Abu Dhabi.

His Excellency Dr. Sultan Al Jaber, Her Excellency Sarah Al Amiri, and Mohammed Al Qasim were received by His Excellency Faisal Al Bannai and Mansour AlMulla, at the EDGE Learning & Innovation Factory for a comprehensive tour of the facility, where key insights were highlighted on how organisations can enhance their operations by adopting the right processes and methodologies, how they can further enhance operations by adopting the right technologies, and how they can leverage automation to ignite a data-driven organisation.

During the visit, delegates toured the EDGE LIF, an end-to-end automated and integrated factory that demonstrates digital manufacturing use cases to trainees. Each trainee will be able to participate in a simulation to explore how technology can empower production. In the simulation, trainees use an app to configure a small car, add a tagline, and track its production across the factory's 4 islands in less than 7 minutes. The Smart and Lean Production training at EDGE LIF and is key to the Lean Digital curriculum. Lean Digital teaches how lead-times, quality and cost can be enhanced by the introduction of Industry 4.0 technologies.

The EDGE Learning & Innovation Factory SLF simulation is conducted over three rounds. It covers traditional production processes, mechanisms for discovering manufacturing and productivity challenges, and implementation of technological solutions that support operations. This includes digital work instructions and a dashboard of key performance indicators, which can lead to more advanced technical solutions, integrate automated work tasks, and mechanisms. These solutions include logistics smartwatches and barcode scanning smart gloves.

As part of this partnership, EDGE will host a series of initiatives, training courses, and programs at the facility from September this year with the aim of accelerating technology adoption in the industrial sector, enhancing collaboration within the UAE's advanced technology ecosystem, and enabling the co-creation and development of innovative solutions among industry players.

The Industry 4.0 Enablement Centre will comprise various activities, including raising awareness around Industry 4.0 technologies and practices, upskilling manufacturers' capabilities with specialised training curricula, demonstrating 4IR technology benefits, supporting the development of Industry 4.0 strategies, and creating a testbed and an open-access environment to pilot and co-develop innovative technologies.

His Excellency Dr. Sultan Al Jaber, UAE Minister of Industry and Advanced Technology, commented: "Based on the vision of our leadership, the Ministry's strategy is committed to supporting local manufacturers to adopt advanced technologies and 4IR solutions. Advanced technologies help to enhance efficiency, productivity, safety, and quality while reducing costs, optimising supply chains, and creating jobs. The agreement signed today is of great importance as it encourages technology adoption in the sector and will empower our industrial resilience, increase competitiveness, accelerate economic diversification and nurture a knowledge-based economy supported by advanced technology. Our partnership with EDGE is a testament to MoIAT's objective to work with local industrial champions to encourage knowledge exchanges. We look forward to the continued upskilling of our national workforce and development of the national R&D ecosystem to achieve the objectives of our strategy."

He added: "The UAE enjoys a set of unique competitive advantages and incentives

including an advanced logistical infrastructure and transportation network, financial solutions, legislations and laws to support the growth of the industrial sector, and an environment that supports technological transformation through training and development. Our national competitive advantages are continually evolving in line with leading international standards."

Her Excellency Sarah Al Amiri, Minister of State for Public Education and Advanced Technology, said: "A key reason for the UAE's continued emergence as a global industrial hub is its rich R&D ecosystem, fuelled by a skilled workforce and a culture of innovation. It is important for us to continue investing in technological projects to develop existing industries and attract technological investments in targeted sectors."

HE added: "Our MoU with EDGE aims to boost our industrial competitiveness. The establishment of the country's first Industry 4.0 Enablement Centre is a significant milestone in the sector's transformation journey. The centre will help to empower industry by supporting companies to adopt advanced technology and upskilling the workforce, thereby boosting productivity and efficiency. Ultimately, the establishment of this centre is in line with the UAE's Industry 4.0 program and the objectives of our broader national strategy for industry and advanced technology."

His Excellency Faisal Al Bannai, Chairman of the Board of Directors, EDGE, said: "The EDGE Learning & Innovation Factory is investing heavily in advanced technologies, innovation, and capacity building to provide a real-life testbed that offers a future-focused approach to digital transformation, operational excellence, and Industry 4.0, in order to be able to ignite data-driven organisations. We are committed to modernising our ways of working and to deploying digital technologies and advanced manufacturing technologies at both corporate and factory levels respectively, in order to increase speed, efficiency, and resilience."

He added: "EDGE's partnership with the Ministry of Industry and Advanced Technology seeks to enable EDGE to become a beacon in the UAE, and regionally, for the adoption of Industry 4.0, and will position the EDGE Learning & Innovation Factory, and the UAE, as respected centres of excellence. We look forward to playing our role in contributing towards a knowledge-based economy and a more sustainable future, in support of the In-Country Value Program."

The EDGE Learning & Innovation Factory combines theory, technology, and practice under one roof to drive improvements and inspire an innovative approach to transform future processes and products. It provides trainees with experiential, gamified, and actionable learnings in line with the facility's forward-looking, future-focused, and integrated approach.

EDGE is part of the Champions Network, a group of leading national industrial companies that deploy 4IR technologies and solutions in their operations. It includes companies such as ADNOC, Honeywell, Unilever, Schneider Electric, Emirates Global Aluminium (EGA), Cisco, Siemens, Aveva, SAP, Etisalat, IBM, Huawei, Strata, Microsoft, PTC, and Ericsson. The Champions Network is a core pillar of UAE Industry 4.0 designed to accelerate the integration of 4IR solutions and applications across the UAE's industrial sector, enhancing the UAE's overall industrial competitiveness, driving down costs, increasing productivity and efficiency, enhancing quality, improving safety and creating new jobs.

MoIAT, EDGE, and Emirates Development Bank (EDB) signed a mutual agreement during the Make it in the Emirates Forum in June this year to support the development of

manufacturing at EDGE, one of the world’s top 25 advanced technology groups for defence. Under the agreement, EDB will provide financing of up to AED 1 billion to support EDGE Group’s effort to adopt advanced technology and manufacturing processes and will contribute to increasing its exports, supporting the growth of the national economy. MoIAT will provide EDGE with a robust roadmap which will reinforce the Group’s position as one of the world’s leading and most financially sound suppliers of military hardware and technology.

In 2021, as part of the country’s efforts to extend the National In-Country Value (ICV) Program at a federal level, EDGE signed an agreement with MoIAT to join the program. The agreements encourage collaboration between government entities and the private sector to galvanise the industrial sector. The program seeks to redirect public and privatesector procurement to the local economy and enhance the role and development of national industry.