Manufacturing is getting smarter and more sustainable in Dubai - Dubai - CNN



ALREADY HOME TO HUNDREDS OF ADVANCED FACTORIES, DUBAI IS DOUBLING DOWN ON NEXT-GEN MANUFACTURING

Dubai Industrial City (DIC) is the emirate's flagship industrial park, home to food companies, steel makers – and standard-bearers for manufacturing's smarter, more sustainable future.

DIC hosts a number of cutting-edge facilities, such as the colossal Enviroserve facility that <u>recycles e-waste from across the Middle East and Africa</u>; the emirate's first integrated battery recycling facility, <u>Dubatt</u>; <u>Sokovo's state-of-the-art vertical farm</u>; and Unilever's Dubai Personal Care (DPC) facility – recognized by the World Economic Forum (WEF) as one of the most digitally advanced factories in the world.

This cluster of pioneering facilities is testament to Dubai's success in fostering advanced manufacturing. But with a swathe of ambitious initiatives underway, the emirate is just getting started.



\$43BN ADDED BY 2030

The Dubai Industrial Strategy 2030 aims to add an additional \$43bn to the emirate's economy from manufacturing and exports by the end of the decade, with a focus on next-gen manufacturing.

Seventy-five interlocking initiatives promote advanced technology and clean energy in the sector. For example, as of January 1st 2024, the Dubai Energy and Water Authority (DEWA) permits manufacturers in Dubai to <u>install their own solar plants</u> to power their operations and help achieve global sustainability targets.

The industrial strategy complements the emirate's flagship economic policy, the Dubai Economic Agenda 'D33', which aims to double the emirate's GDP by 2033. Under the initiative's first phase, Dubai has launched its Green and Sustainable Industry Plan, which is establishing a framework for carbon credit trading in the Dubai Financial Market – and aims to boost the export of eco-friendly products.

This latter goal intertwines with another D33 objective: to make Dubai a top five global logistics hub. Already home to comprehensive logistics infrastructure, Dubai is adding 400 cities to its global trade map, in a bid to increase its goods and services trade to nearly \$7 trillion.



Relevant R&D, meanwhile, is supported by the Dubai Future Foundation (DFF) which funds research into related emerging tech with programs like Dubai Future Labs, which is developing <u>warehouse and delivery robots</u>.

DFF also hosts the first WEF-affiliated <u>Centre for the Fourth Industrial</u> <u>Revolution</u> (C4IR). 4IR refers to the confluence of emerging technology such as AI, the Internet of Things (IoT) and robotics.

This robust framework of support for advanced manufacturing builds on Dubai's firm industrial foundations – evidenced by the next-gen facilities already based in the emirate.

LANDMARK MANUFACTURERS

Unilever's DPC facility is MENA's first non-energy manufacturing site to be recognized by the WEF as a Global Lighthouse facility – a leading example of how to embed 4IR technologies and techniques.

"DPC IS CONSIDERED A ROLE MODEL FOR THE ADOPTION OF EMERGING TECH IN UNILEVER GLOBALLY"

 Ahmed Kadous, Head of Supply Chain at Unilever Personal Care, Middle East and Turkey

Thanks to extensive digitization, DPC has substantially reduced its manufacturing costs, while simultaneously minimizing its environmental impact. The site has reduced its energy consumption by 34% since opening in 2016, sends zero waste to landfill, and recycles 100% of its wastewater.

"[DPC] is considered a role model for the adoption of emerging tech in Unilever globally," says Ahmed Kadous, Head of Supply Chain at Unilever Personal Care, Middle East and Turkey.

Another landmark facility is the Emirates Global Aluminium (EGA) factory, which produces the world's first commercially available aluminium to be produced entirely with solar power – provided by DEWA.



Ahmed Kadous, Head of Supply Chain at Unilever Personal Care, Middle East and Turkey and Dr. Jagjit Singh Srai, Co-Chair of the WEF Future Council on Advanced Manufacturing and Production

The metal is even used to build the BMW iX5 Hydrogen, which eschews the battery found in most electric vehicles in favor of a hydrogen fuel cell, making the proof-of-concept car a key milestone on the path to net-zero. Hydrogen is seen as critical to decarbonizing transport.

These are all staggering achievements for the businesses and bodies involved. But they are also testament to the ecosystem that enabled them.

ENABLING ENVIRONMENT

Dr. Jagjit Singh Srai, Co-Chair of the WEF Future Council on Advanced Manufacturing and Production – which runs the Global Lighthouse Network – credits Dubai's "outstanding infrastructure, ambitious industrial strategy, and an ability to attract highly skilled personnel" for the rapid evolution of its manufacturing sector.



Meanwhile, Kadous says Dubai offers many advantages for a site like DPC, such as "connectivity with the entire globe." Two highways connect DIC to the wider GCC. Two major ports, and two major airports, are all under 45 minutes away. Two-thirds of the world's population can be reached within eight hours.

"DPC'S SUCCESS IS HIGHLY DEPENDENT ON THE PEOPLE THAT OPERATE IT, AND DUBAI OFFERS THE OPPORTUNITY TO HAVE THE BEST TALENT WORK FOR OUR COMPANY."

 Dr. Jagjit Singh Srai, Co-Chair of the WEF Future Council on Advanced Manufacturing and Production

These connections are supported by Dubai's advanced logistics infrastructure. Jebel Ali Port, for example, boasts a 3,900 square meter cold storage facility, <u>automated cranes</u>, and housed the successful pilot facility of <u>DP World's intelligent BOXBAY high-bay storage system</u>. Full container loads can be transferred between Dubai International Airport and Dubai's ports in <u>as little as six hours</u>. The UAE ranks <u>8th in the world for logistics performance</u>.

But the emirate's biggest competitive edge, according to Kadous, is its talent pool. "DPC's success is highly dependent on the people that operate it, and Dubai offers the opportunity to have the best talent work for our company."

The emirate has expanded its visa programme in recent years, and offers substantial incentives to highly skilled workers to relocate, leading the Boston Consulting Group to rank Dubai as one of the world's leading <u>talent hubs</u>.

ADVANCING MANUFACTURING

The presence of landmark facilities like DPC confirm that Dubai has "the skill sets required and supporting ecosystem to effectively deploy advanced technologies," says Dr. Srai.

And the emirate is capitalizing on its position. With the sheer scale of its support for next-gen industry, Dubai is leading the world into a smarter, more sustainable future for manufacturing.