

KOÇ GROUP'S INDUSTRY 4.0 PRACTICES
CONTINUE TO BE NAMED AMONG GLOBAL BEST PRACTICES
BY THE WORLD ECONOMIC FORUM

**ARÇELİK'S ESKİŞEHİR PLANT NAMED ONE OF THE WORLD'S
MOST-ADVANCED MANUFACTURING FACILITIES**

The World Economic Forum (WEF) has welcomed Arçelik's Eskişehir Refrigerator Plant into its "Global Lighthouse Network," which recognizes leaders in utilizing Fourth Industrial Revolution technologies.

Koç Group has reached yet another milestone in its transformation journey with another manufacturing plant included in the "Global Lighthouse Network" by the World Economic Forum (WEF), which recognizes leaders in applying Fourth Industrial Revolution technologies. Arçelik Eskişehir Refrigerator Plant has joined the ranks of the world's most advanced manufacturing plants, following in the footsteps of Arçelik's Washing Machine Plant in Ulmi, Romania, and Ford Otosan Kocaeli Plant, both of which were named "Global Lighthouses" in 2018.

Launched in 2018 by the WEF, the Global Lighthouse Network list has admitted just 90 manufacturing plants to date and these have been selected among more than a thousand candidates. Çakiroğlu will be participating as a featured speaker in the Annual Meeting of the Global Lighthouse Network, which is taking place on Wednesday, September 29, 2021, and share yet another success story by Arçelik.

Levent Çakiroğlu: "We see digital transformation as a key component of our cultural transformation program."

"At Koç Group, we are focused on increasing our competitiveness, improving our technology and innovation capabilities while managing our business through a global lens," said Koç Holding CEO Levent Çakiroğlu, adding "We see digital transformation as a key component of our cultural transformation program. Today, our Arçelik Eskişehir Refrigerator Plant - the biggest large-volume refrigerator production facility in Europe, which started production in 1975 - has been selected by the World Economic Forum as one of the world's leading Industry 4.0 plants. This prestigious global recognition is much deserved thanks to investments in digitalization, artificial intelligence, machine learning, robot and sensor technologies and other exemplary technological practices. I'd like to thank all of my colleagues for helping achieve such a significant success that made us proud."

Levent Çakiroğlu stated that a special digitalization roadmap was set for Arçelik as Koç Group began its digital transformation journey, saying: "The digital transformation of our Eskişehir

factory is an inspiring success story. To meet rising consumer demand for its expanding product range, while also meeting all quality expectations, Arçelik created more than 30 use cases. To accomplish this, our company, which develops new ideas and can test them quickly, used in-house innovation and advanced engineering platforms like Atölye 4.0 and The Garage. We also collaborated with SMEs, universities, and start-ups. As a result, digital applications could be implemented at a lower cost. Thanks to the digitalization of operations, our factory was able to quickly adapt to shifts in consumer demand caused by the pandemic. Furthermore, in response to increased demand, we plan to invest in increasing our capacity.”

The manufacturing plant employs artificial intelligence, machine learning and closed-loop feedback control systems.

Acknowledged as a global leader, the Arçelik Eskişehir Refrigerator Plant stands out with the following achievements:

- The manufacturing plant uses artificial intelligence, machine learning and closed-loop feedback control systems to enable artificial intelligence-based decision-making solutions, which has resulted in significant improvements in quality indicators and a 20 percent reduction in customer complaints.
- The closed-loop feedback control systems were adjusted to the machinery, resulting in a 43 percent capacity increase and a 17 percent reduction in transformation costs.
- Carbon emissions were reduced by 14% thanks to digital solutions. Additionally, Autonomous Mobile Robots (AMRs) were integrated to replace forklifts and automate the material distribution system, resulting in a 7 percent reduction in carbon emissions.
- The closed-loop feedback control systems improved energy efficiency by 19 percent by optimizing the core production processes.
- The manufacturing plant's 11 robots and 3,500 sensors collect 7.5 million pieces of data per day. The facility makes use of digital manufacturing equipment that it designed itself.
- Employee engagement increased by 82 percent, exceeding the Best Employer average score, thanks to effective transformation management, employee participation in the process, and improved employee competency.