

FOR IMMEDIATE RELEASE**LG SMART PARK NAMED ‘LIGHTHOUSE FACTORY’ FOR
FUTURISTIC MANUFACTURING TECHNOLOGY**

*World Economic Forum Recognizes LG for Innovative Digital Transformation of
Home Appliance Manufacturing Facility in South Korea*

ENGLEWOOD CLIFFS, N.J., March 31, 2022 — LG Smart Park, a production base of LG Electronics in Changwon, South Korea, has been selected as a *Lighthouse Factory* by the [World Economic Forum](#) (WEF).

Shaping the future of manufacturing, WEF “Lighthouse” facilities implement Fourth Industrial Revolution technologies, such as the Internet of Things, big data, artificial intelligence and robots, into manufacturing and supply chain operations to deliver a wide range of benefits. These benefits include everything from increased production efficiency to enhanced environmental sustainability.

“As the world grapples with many challenges, it is remarkable to see how Lighthouses are yielding sustainability benefits while achieving business goals, which we call eco-efficiency,” said Francisco Betti, Head of Shaping the Future of Advanced Manufacturing and Value Chains, World Economic Forum. We need them to continue illuminating the way forward for the global manufacturing community by shaping a responsible future of manufacturing that works for people, society and the environment”

Over the past five years, LG has transformed its factory complex in Changwon, South Korea into LG Smart Park, a futuristic hub of home appliance manufacturing. The key elements of the transformation are a digitally enabled end-to-end three-dimensional logistics system. This advanced analytics system is based on edge computing technology and machine learning that predicts defects and state-of-the-art facilities that can mass-produce multiple models to respond flexibly to customer requirements.

The newly implemented “digital twin” technology enables the operating system to analyze production processes in virtual reality. It can predict if any issues will occur within the next 10 minutes and provide exact parts and materials for the assembling of each appliance with an accurate, up-to-the-minute status of the facility’s logistics operations.

Sensors utilizing deep learning technology are installed throughout the factory to monitor each phase of production in real-time, helping factory workers preemptively identify and resolve any possible issues. As a result, the defective return cost decreased by 70 percent from 2020 to 2021, while overall quality competitiveness¹ and production efficiency² have been significantly strengthened.

The first three floors at LG Smart Park employ an overhead conveyor system that quickly transports boxes containing refrigerator parts to the required production lines. Attached to each line is an intelligent warehouse that monitors inventory in real-time, enabling automated materials management, including the request for additional parts and supplies.

On the ground, automated guided vehicles leveraging stable 5G network connectivity transport parts and materials to wherever needed on site. Through its three-dimensional logistics automation system, the company can minimize the amount of warehouse space required by 30 percent compared to conventional logistics systems, and shorten the time required for hourly materials transportation by 25 percent.¹

LG Smart Park has also adopted the use of robots featuring an AI engine and camera to make the home appliance production process faster and safer. The robots undertake dangerous and complicated tasks, such as welding and lifting heavy parts and equipment.

The company plans to apply the innovative, smart production technologies pioneered at LG Smart Park to a total of 26 LG production facilities in 13 countries, accelerating the digital transformation of its global manufacturing network by 2025.

“LG Smart Park illustrates our strong commitment to adopting the revolutionary technologies as a leader in the global premium home appliance market,” said Lyu Jae-cheol, president of the LG Electronics Home Appliance & Air Solution Company. “We are presenting a blueprint for the future of manufacturing, one that delivers better outcomes across environmental, economic and employment aspects.”

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¹ Comparing the figures from the year 2020 to 2021 according to the lighthouse site visit report by World Economic Forum.

² Units produced per hour has increased by 17 percent, comparing the year from 2020 to 2021 according to the lighthouse site visit report by World Economic Forum.

About the LG Electronics Home Appliance & Air Solution Company

The LG Home Appliance & Air Solution Company is a global leader in home appliances, smart home solutions and air solutions as well as visionary products featuring LG ThinQ AI. The company is creating various solutions with its industry leading core technologies and is committed to making life better and healthier for consumers by developing thoughtfully designed kitchen appliances, living appliances, HVAC and air purification solutions. Together, these products deliver enhanced convenience, superb performance, efficient operation and compelling health benefits. For more news on LG, visit www.LGnewsroom.com.

About LG Electronics USA.

LG Electronics USA, Inc., based in Englewood Cliffs, N.J., is the North American subsidiary of LG Electronics, Inc., a \$63 billion global innovator in technology and manufacturing. In the United States, LG sells a wide range of innovative home appliances, home entertainment products, commercial displays, air conditioning systems, energy solutions and vehicle components. LG is a seven-time ENERGY STAR® Partner of the Year. The company’s commitment to environmental sustainability and its “Life’s Good” marketing theme encompass how LG is dedicated to people’s happiness by exceeding expectations today and tomorrow. www.LG.com.

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