Automotive

Building a smarter factory and managing carbon footprints in a tangible way

Leading automotive manufacturer

This automotive manufacturer improves production output and profitability by building a state-of-the-art smart factory with Lenovo systems and takes tangible steps to manage its carbon footprint with Lenovo CO_2 Offset Services.

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Who is this leading automotive manufacturer?

This leading manufacturer specializes in the design and production of automotive components, including braking systems, powertrain units, chassis parts, interior electronics, and cabins. The manufacturer also has a network of research and development sites that focus on creating vehicle electrification solutions and finding innovative ways to enhance driver comfort and safety.

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The Challenge

Already a market-leader in Europe, the automotive manufacturer was looking to expand its presence in new locations, including China. However, rising energy costs and skilled labor shortages threatened to limit the manufacturer's output and inhibit business growth.

Furthermore, the manufacturer relied on largely manual processes to manage mission-critical factory equipment. For example, engineers had to collect data from mutliple source systems before they could assess the performance of machinery. Inevitably, this took a lot of time, and emerging faults often went undetected and caused significant periods of costly production downtime.

To support the drive into new markets, the manufacturer planned to build a new factory site, incorporating next-generation technologies, such as ultra-low-latency 5G connectivity. This ambitious move would enable real-time analysis of plant equipment and increased automation on the production line, and ultimately help to improve manufacturing output and efficiency.

“We needed a partner with leading-edge technologies and significant experience working on large-scale implementation projects. Sustainability is one of our core strategic values, so we also wanted a vendor that could plan and execute the project as sustainably as possible.”

Spokesperson
Leading automotive manufacturer

Optimizing manufacturing processes

The manufacturer partnered with Lenovo to build a 5G network and server infrastructure at the new factory. Today, internet of things (IoT) sensors and Lenovo Daystar Bots collect data on the production line and inside the factory, and automatically transfer it over the network to a central Lenovo ThinkSystem SE550 V2 server for processing. The manufacturer then uses digital twin simulation tools to analyze equipment in real time, identiying issues before they cause downtime.

The manufacturer also selected Lenovo CO_2 Offset Services to take tangible action and manage carbon footprints. Lenovo has estimated the emissions across the average lifecycle of the devices and the offset credits support verified climate action projects aimed to help avoid CO_2 emissions from being emitted in the atmosphere.

Services

Lenovo CO_2 Offset Services
Lenovo Deployment Services

Hardware

Lenovo Daystar Bots
Lenovo ThinkSystem SE550 V2 Server

“With Lenovo CO_2 Offset Services, we are better positioned to manage our IT carbon footprint. Moving forward, we can analyze our carbon emissions and take proactive steps to optimize our energy consumption.”

Spokesperson
Leading automotive manufacturer

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Results

Working with Lenovo, the automotive manufacturer has successfully created its first cutting-edge smart factory to support its expansion into new international markets. Streamlined, automated processes have replaced time-consuming manual steps for managing and maintaining the production line, helping to improve equipment performance and uptime, and overall productivity. And with Lenovo CO_2 Offset Services, the manufacturer is taking tangible steps to manage its carbon footprint.

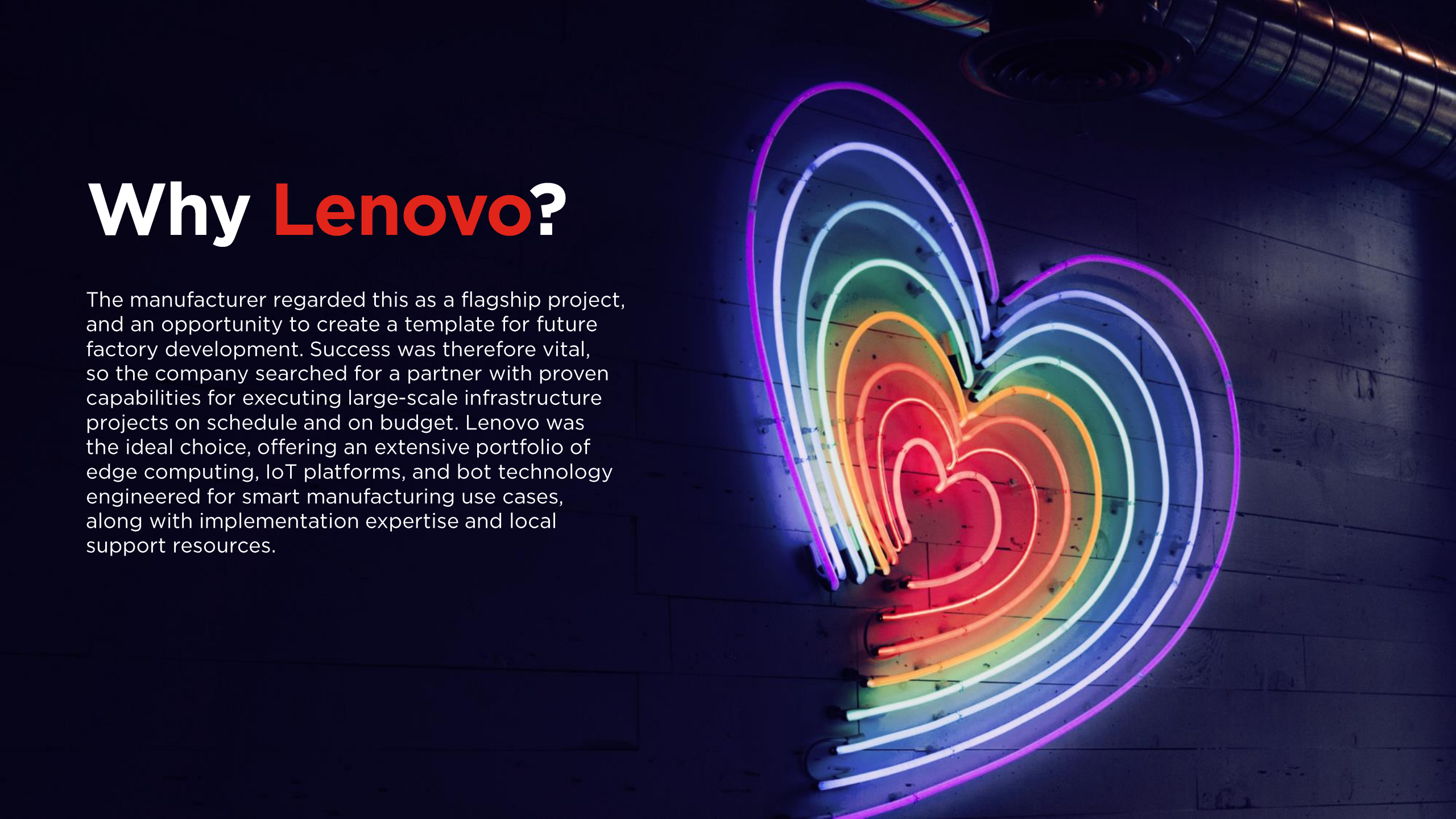
- Creates 5G-enabled smart manufacturing site
- Makes offsetting carbon emissions simple with meaningful impact
- Helps boost manufacturing output

“The opening of our 5G-enabled factory is a landmark moment in our push into new markets. With Lenovo, we have created a state-of-the-art smart manufacturing site that will help us operate more cost-efficiently, increase our output, and ultimately make us more competitive.”

Spokesperson
Leading automotive manufacturer

Why Lenovo?

The manufacturer regarded this as a flagship project, and an opportunity to create a template for future factory development. Success was therefore vital, so the company searched for a partner with proven capabilities for executing large-scale infrastructure projects on schedule and on budget. Lenovo was the ideal choice, offering an extensive portfolio of edge computing, IoT platforms, and bot technology engineered for smart manufacturing use cases, along with implementation expertise and local support resources.



How can manufacturers make their factories smarter while managing their carbon footprint?

Working with Lenovo, this automotive manufacturer built a smart factory to optimize production output and boost profitability.

Explore Lenovo Sustainability Solutions