

How Cummins and Surgere Are Redefining Sustainable Logistics

With the goal of eliminating 84 million pounds of packaging waste by 2050, Cummins has revolutionized its warehousing and supply chain operations with the help of cutting-edge IoT technology.

THE CHALLENGE

Cummins wanted to decouple its revenue growth from packaging waste and realign its supply chain with the ambitious sustainability goals for which the company is known.

THE SOLUTION

Surgere deployed multiple layers of tracking technology to improve Cummins' supply chain visibility.

THE RESULT

The real-time asset tracking using RFID has significantly transformed Cummins' warehouse and manufacturing operations by providing actionable insights and streamlined process. The program is now scaling globally.

Supporting
Planet 2050
Initiative

500+ pieces of
RFID hardware
30 company and
supplier locations

Eliminate
84 MILLION
pounds of packaging

3 THINGS TO KNOW

- 1 99.9% Data Accuracy:** Cummins has real-time insights on their entire returnable fleet
- 2 Engineering and Scale:** Solution works in 30 different facilities in North America and is growing to Europe
- 3 Sustainability Focus:** 84 million pounds of corrugate will be removed by 2050

Cummins, a global power technology leader specializing in diesel and alternative fuel engines, generators, and related components, is well known for being committed to the decarbonization of energy the world uses to power its machines.

With this commitment to lead on climate action, one of the company's primary goals is to reduce its own effects on the environment—something that presented specific challenges because of their global footprint of warehouses and supply chain partners.

Cummins executives wanted to decouple the company's revenue growth from packaging waste in line with the goals it set out in its Planet 2050 initiative, which specifically sets two important sustainability goals:

- **Generate 25% less waste in its facilities and operations as a percent of revenues**
- **Reuse or responsibly recycle 100% of its packaging plastics**

Additionally, the company wanted to improve the operational efficiencies within its North American supply chain and warehouses, while simultaneously enhancing its ability to track its returnable packaging accurately and reliably. Cummins undertook a thorough search for a partner who could deliver on these objectives, and eventually chose Surgere to help them.

How Surgere Is Supporting Cummins' Sustainability Goals

Surgere deploys multiple layers of tracking technology like radio frequency identification (RFID), ultra-wideband (UWB), and global positioning systems (GPS) to reduce operational friction and improve companies' visibility into their supply chains. Working closely with Cummins and its suppliers, Surgere's engineers performed a detailed assessment at each facility involved in supply chain operations.

As part of the process, Surgere worked with global operational directors and local warehouse managers to determine the specific needs of each facility. After an extensive engineering process, the Surgere team determined the most effective technology would be the addition of RFID tags to the different returnable containers in the Cummins supply chain. Choosing which tags to deploy took significant investigation because the returnable containers were constructed from different materials, ranging from plastic to metal to wood. Finally, Surgere was committed to achieving data accuracy that exceeded Cummins' minimum read and data capture requirement of 95%.

Once Cummins and Surgere decided on the proper tags, the next step was installing the necessary technology to read them. Since the relationship began in 2022, Surgere has installed more than 500 portals, overheads, and handheld readers across 30 Cummins-owned and supplier facilities in North America. The goal was to leverage passive RFID technology to ensure accurate bulk data be transmitted to a central operating system with Surgere's proprietary supply chain software, Interius, which allowed the precise tracking of containers and assets to within inches and at each critical transaction point.

Interius, Surgere's flagship product, is a Software-as-a-Service (SaaS) tool that provides its clients with the necessary visibility, AI-based data processing and directional insights, and operational intelligence to manage and improve their supply chain operations. Interius offers source-of-truth data based on 99.9% data fidelity, which allows companies to improve their profitability while meeting their sustainability goals.

By maximizing workflows and significantly reducing the time required to locate containers, the solution directly supports Cummins' 2030 and 2050 sustainability goals.

Real-World Effects

The RFID asset-tracking solution deployed by Surgere has transformed Cummins' approach to warehouse and manufacturing operations by providing real-time, actionable data related to the location and status of their returnable fleet, streamlining operations, and significantly reducing the environmental effects of their packaging.

Thanks to this improved data collection and analysis, the company has fostered a culture of continuous improvement and innovation that has led to operational time savings throughout their supply chain. The 99.9% differentiated data accuracy achieved by Surgere's tracking systems has, to date, directly affected Cummins' sustainability initiative by reducing waste and enhancing its overall supply chain operational efficiency.

The data the system is capturing and analyzing has allowed Cummins to right-size their returnable fleet, improving the efficiency of their packaging management, which keeps the company moving forward toward its aggressive sustainability goals.

For example, one of Cummins' container management centers can now easily handle and process between 480,000 and 500,000 packages per week – an increase of 25% - all of which are returnable metal and plastic containers that have replaced corrugate and single-use packaging. The move reduces the amount of corrugated packing used and improves labor ergonomics, container usability, and employee safety.

Additionally, stock-outs for Cummins and their suppliers have disappeared thanks to the high degree of tracking accuracy of the new systems, which means fewer potential delays in delivering products to their distributors. The company's commitment to streamlining its supply chain processes is so strong that they covered the costs of the necessary hardware and tags for their suppliers, ensuring buy-in and further greening their supply chain operations.

The Bottom Line

The collaboration between Surgere and Cummins underscores both companies' unwavering commitment to environmental stewardship and operational excellence. By deploying advanced RFID technology and employing Surgere's expertise in Internet of Things (IoT) asset tracking and program management, Cummins is able to move ever closer to its goal of removing 84 million pounds of waste packaging. The success of the program Surgere and Cummins have created together can serve as a road map for other companies looking to improve the environmental effects of their supply chains worldwide.

For more information on how Surgere's cutting-edge technology solutions can improve your supply chain operations, go to surgere.com.