Case Study

Trane Technologies improves supply chain visibility, collaboration, and execution.

TRANE
TECHNOLOGIES™
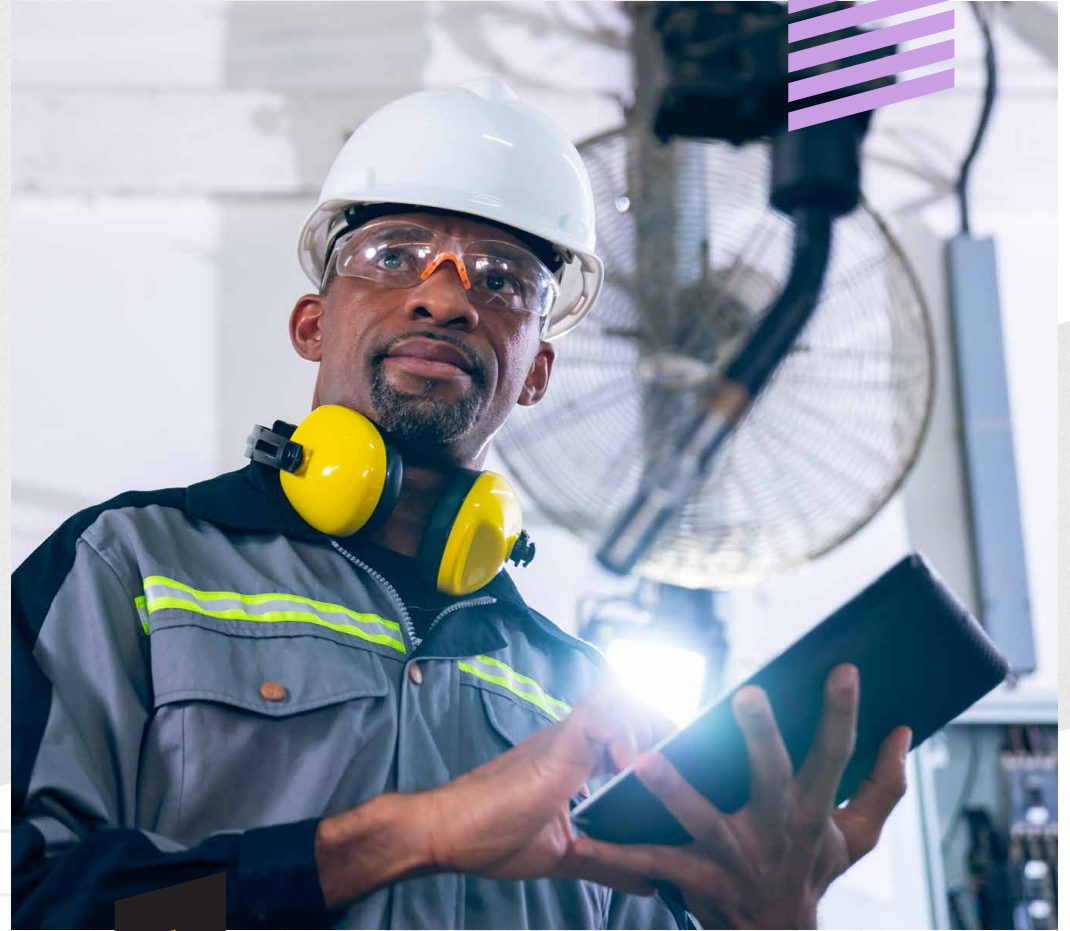
INDUSTRY

Heating, Ventilation, and Air Conditioning (HVAC)

COMPANY

Trane Technologies

Company Locations:
Tyler, Texas
Vidalia, Georgia
Columbia, South Caroline
Trenton, New Jersey

Size: 50,000+ employees

tranetechnologies.com

Trane Technologies creates comfortable, energy efficient indoor environments for commercial and residential applications.

Trane Technologies wanted better visibility and control over supply chain processes, and wanted to improve collaboration and communication with its supply chain partners. With Upland Ultriva, Trane Technologies improved visibility, collaboration, and execution between material planners, buyers, and suppliers. Over the course of a phased roll-out, Trane streamlined its raw material supply chain, transitioned from build to forecast to lean production, and aligned production planning and scheduling based on actual customer demand.

Keep cool with more control over your supply chain.

The challenge.

As one of the world's leading manufacturers of indoor comfort systems, Trane Technologies has plants across the United States working to keep up with customer demand. These plants rely on hundreds of suppliers in the U.S. and other countries to furnish parts and materials when needed. With multiple ways of exchanging information with these suppliers, Trane wanted to find a way to streamline communication to cut down on time and eliminate inaccuracies. Trane was also using a Build to Forecast model as their primary means of production. But forecasts were not always accurate when compared to actual production needs, which caused an increase in inventory and storage costs. Ultimately, Trane was looking for a way to establish leaner supply, distribution, and factory processes to cut down on wasted expenses and better serve their customers with the right products at the right time.

Gaining greater visibility over the supply chain with Upland Ultriva.

Recognizing the importance of establishing lean supply, lean distribution, and lean factory processes, Trane needed to find the right technology to improve its systems while helping them cut down on waste to improve the bottom line. After learning about Upland Ultriva's supply chain management and execution solutions, Trane wanted to implement the right technologies to provide end-to-end supply chain visibility and achieve demand-driven manufacturing.

Trane worked with Upland Ultriva to develop a plan for implementing these technologies across its supply chain. This strategic initiative to establish lean supply, distribution, and factory processes across Trane's five manufacturing plants was carried out over three phases.

"Upland's Ultriva Lean Execution Suite applications have played a large role in helping Trane Technologies achieve world-class lean supply, lean distribution, and lean factory capabilities across our division."

– Robert Rivers
Director Supply & S&IOP,
Residential HVAC & Supply
Trane Technologies

With a phased roll-out of Ultriva, Trane Technologies reduced more than 25 percent in inventory.

Phase 1: Streamlining the raw material supply chain with Ultriva's Collaborative Supply Portal.

The first phase of the project focused on improving Trane's raw material supply chain, which started with the deployment of Upland's Ultriva Collaborative Supply Portal (CSP) with external eKanban. This phase included onboarding suppliers and items to CSP, optimally sizing eKanban loops, implementing supplier order acknowledgment, coordinating and managing changes in demand, and measuring supplier performance. Using CSP as its single source for material status, Trane was able to improve visibility, collaboration, and execution between material planners, buyers, and suppliers. Trane also gained valuable, actionable business intelligence to help improve decision-making when it came to material replenishment. Overall, Trane managed over $750 million in annual material spend through CSP.

Phase 2: Transitioning from build to forecast to lean pull production model.

The second phase of the strategic initiative was focused on lean distribution by transitioning from Trane's Build to Forecast primary production model to Lean Pull. This was achieved using Upland's Ultriva internal eKanban module, which releases demand signals to upstream work cells based on finished goods shipments. By transitioning to a Lean Pull production model, Trane was able to reduce inventory by producing goods based on real-time demand instead of forecasts, which often don't coincide with actual demand. This leaner production model gave Trane the opportunity to reduce unnecessary inventory, which helps reduce overhead while optimizing storage costs.

Phase 3: Optimizing factory management by analyzing and adjusting processes.

The third phase of the initiative focused on creating leaner factory processes by expanding the deployment of Ultriva's Lean Factory Management (LFM) module with its internal eKanban. LFM is currently being used to optimize the sequencing of production orders, analyze production cycle time, adjust production operations based on capacity constraints, and expand internal pull.

With LFM, Trane can align production resources with customer demand while continuously monitoring production operations with real-time feedback. In addition to gaining greater visibility over the entire production process, Trane can now dynamically manage production planning and scheduling, optimizing the flow of information and materials.

Results for Trane Technologies

25%
reduction
in inventory resulting in better product turns

10,000+
completed
inventory transfers between Ultriva and Oracle

98%
achieved
accuracy rate with RFID scans and automated poke yoke process

$750 Million
managed
in annual material spend using Ultriva's Collaborative Supply Portal

Upland Ultriva is a supply chain management software that provides real time visibility and collaboration tools that allow manufacturing companies to maximize investment and drive customer satisfaction. Connecting with over 20 ERP systems, Ultriva enables users to manage inventory at all levels from raw materials to finished goods and balance the workload and machine usage for production planners, schedulers, materials managers, and plant technicians.

upland
Ultriva