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Track and Trace

Connecting your Manufacturing Environment

Industrial manufacturers are under increasing pressure to continually improve efficiency through automation and digitization. According to ISM Manufacturing survey data, supply chain challenges and inflation are limiting growth in the industrial manufacturing segment. In addition, labor shortages are expected to continue to challenge growth over the long term, with Deloitte estimating that the industry will face a shortfall of 2.1 million skilled jobs by 2030.

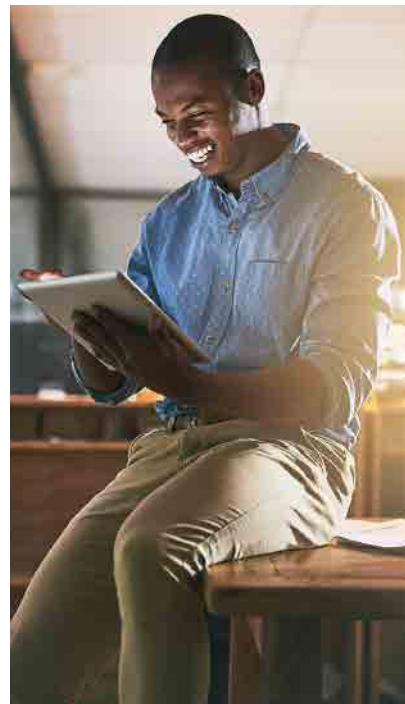
Given this environment, it's not surprising that an online survey of 200 U.S. and Canadian industrial leaders responsible for equipment and asset tracking for companies across the automotive, energy, utilities, transportation, and agriculture industries revealed time management issues such as difficulties tracking assets and the amount of time required to manage inventory of high value assets.

By gaining line of sight to assets, manufacturing organizations can increase efficiency and optimize headcount needed to manage equipment inventory. Intelligent inventory management systems automate tracking and integrate seamlessly into existing ERP systems, ensuring better data-driven decision making. A complete view of inventory as it moves through each phase of an operation ensures true end-to-end visibility and creates a connected manufacturing environment that is better positioned for growth in a challenging market.

Operational Efficiency

Almost a third of the industrial leaders surveyed reported challenges with material or product flow throughout the shop floor. Geo-zone reporting common in track and trace systems provides detailed data on time spent in each stage and pinpoints bottlenecks in operations. Integrating real-time equipment health status and performance data into an ERP or inventory management system further improves efficiency by avoiding potential delays due to last-minute maintenance and configuration needs.

Time required to track and manage high-value assets remains a key challenge for many industrial equipment manufacturers.



Labor Shortfalls

Competition for workers is driving up hourly wages, but higher wages alone often are not enough to attract workers to industrial manufacturing roles. With the rising cost of labor, it's difficult to justify headcount to walk locations locating assets or manually reconcile inventory. In a recent [COO Pulse Survey](#), PWC found that the majority of U.S. manufacturers plan to reduce workforce demand through increased automation over the next year. Automating inventory management means industrial leaders can optimize use of scarce labor resources and eliminate manual tasks that don't add value to the bottom line.

Inventory Reconciliation



Even with an existing inventory management system in place, manufacturing leaders report a need to reduce time spent on audits and reconciliation. Over half of survey respondents cited this as one of the most important factors when evaluating systems. Companies can typically expect to find an inventory variance of 1-2% of sales, but when assets can't be located, this can quickly rise and extend the time dedicated to quarter- and year-end audits. Inventory control managers reported walking the property multiple times a day to scan assets and manually track location using an Excel spreadsheet. However, track and trace systems offer serial number matching and integration of equipment-specific data into work planning software, ERP platforms, and inventory management systems to eliminate the need for manual data entry. Improved accuracy in real time inventory also means that product forecasts won't drive additional production and unnecessary inventory.



Inventory Costs

Unaddressed gaps in inventory management can lead to increased risk and holding costs while tying up critical cashflow. Some estimates put these added costs at 10% to 20% of equipment value. Almost one in four survey respondents cited rework expenses due to aged inventory as a key pain point. Track and trace systems can quickly identify aging inventory so it can be picked more effectively and offer serial number and attribute matching to confirm the correct equipment. Manufacturers can reduce expenses associated with aged inventory because they are able to locate specific assets on-demand. Improved visibility also positions operations to better execute a FIFO inventory strategy, and better align inventory on hand with current market demand.



Flexible Configuration

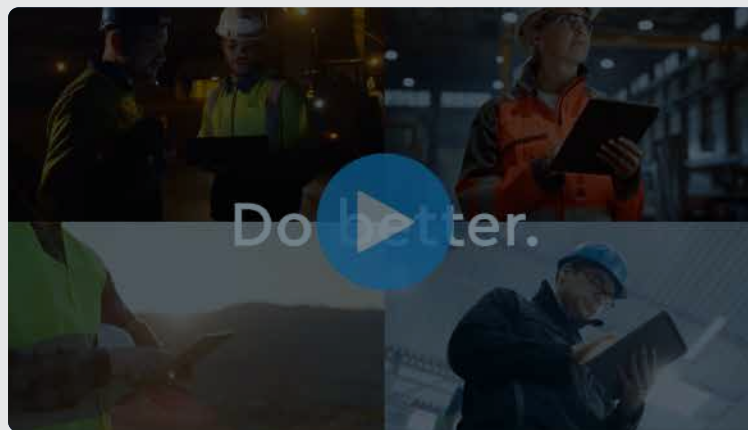
Large inventories make it harder to manage as equipment moves through the factory, outdoor holding areas, or maintenance facilities. Surveyed industrial leaders cited ease of use and configurability as one of the most important aspects of an inventory management and asset tracking solution. One configuration challenge raised by respondents was difficulty tracking equipment across indoor facilities. Inventory systems that rely on RFID tags often face interference with metals and other radio waves and require specialized scanners. Location is generally updated only as the RFID tags interact with readers located around the facility or are scanned by hand. Real-time track and trace systems reduce the risk of losing assets in "dead zones" with multiple modes including Bluetooth and GPS.

Creating a Competitive Advantage Through Smart Tracking

Many industrial leaders are struggling with their current inventory management systems, raising key challenges like the required time investment, keeping the system updated, and the accuracy and reliability of tracking assets in the system. Overall, these leaders are looking for a solution to help them wrap their arms around the sheer number of assets they must manage. Faced with supply chain challenges, labor shortages, and inflation, they need a system that is easy, efficient, and reliable.



Cox 2M's track and trace solution addresses these issues with capabilities that can help industrial equipment manufacturers improve operational efficiency and maintain a competitive edge. Its intelligent inventory management platform can be configured to track and report performance against business targets, and data is easily integrated into ERPs and inventory management systems making insights available immediately across business systems. Through customizable zones that align with unique operations, it creates a valuable source of operational data that pinpoints opportunities to streamline and improves productivity with actionable insights. Real-time data reduces the need for manual inventory reconciliation so staff can focus on more productive and rewarding work.



As industrial equipment manufacturers seek to improve operational efficiency and remain competitive in an increasingly uncertain environment, **investing in smart inventory management now can counter many of the headwinds impacting the industry.**

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REFERENCES

[Organisation for Economic Co-operation and Development \(OECD\), November 2022 Report, Main Economic Indicators](#)

[Deloitte, 2023 Manufacturing Industry Outlook](#)

[PWC, US insights on the future of the manufacturing industry](#) (highlights from 2021 COO Pulse Survey; full download available at link also)

[Oracle NetSuite, The Comprehensive Guide to Inventory Audits](#), September 2022

