Columbus Manufacturing

Discrete Manufacturing Industry Challenges

Challenges:

- The manufacturing industry faces many challenges; ever shortening timescales for product development, complex customer requirements, inefficient supply chains, and an increasing regulatory burden, to name a few.

"We were unable to get access to data to inform our business decisions."

"Our old system didn't have enough control over the supply chain, limiting our growth."

Ideal Solution:

- "The solution had to give a better insight into customers, sales pipeline and the overall business. Since implementation, we have tighter control over operations and have laid a foundations for continued growth."

The ideal solution will…

- Improve access to information
- Provide accurate planning of production and forecasting
- Support business growth

Desired Outcomes:

- Reduce costs
- Improve end to end traceability
- Maintain compliance
- Excel customer relationships
- Growth

"Not only is our Executive team thrilled, but our founding owners were extremely impressed. They consider this the most successful ERP implementation in the company's history."

"The Columbus team were able to deliver our solution two weeks ahead of schedule and more than 15 percent under budget."
- Carol Wills, Controller, CymSTAR, LLC

Columbus Manufacturing, built on Microsoft Dynamics 365 and Azure

Columbus Manufacturing, built on Dynamics 365 and Azure, streamlines the supply chain while cutting costs. It increases process efficiency, improves accuracy and visibility of data, enhances resource utilization and maximizes margins.

Enhanced visibility
Faster and more accurate insight into industry trends and consumer behavior.
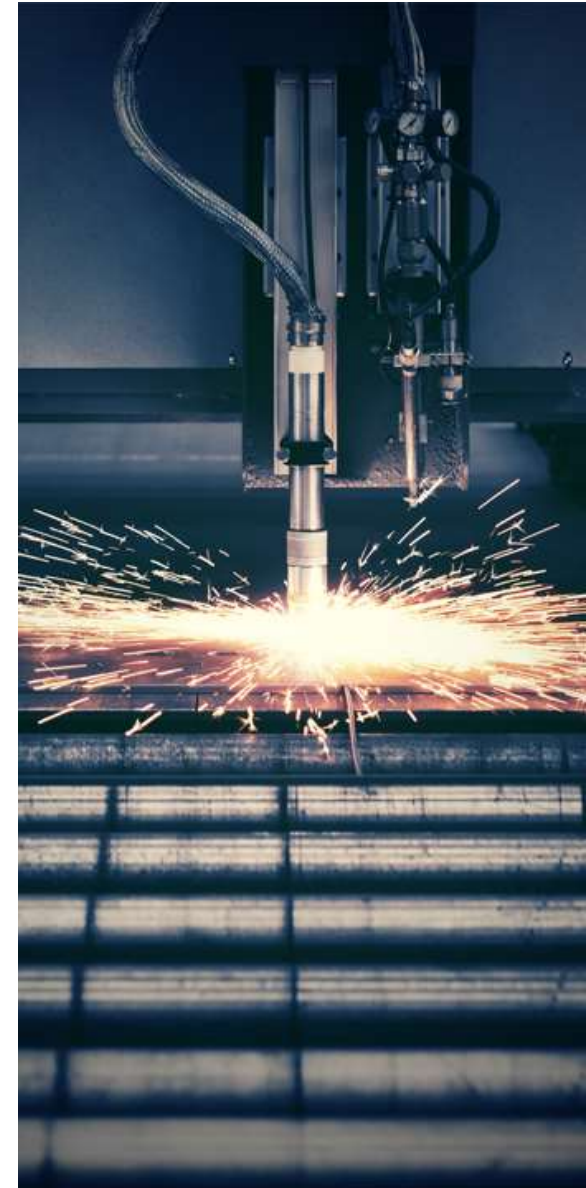
Simplified compliance
Improved disaster recovery infrastructure and audit trails.

Competitive advantage
Enhanced reporting analytics, sales forecasting and BI.
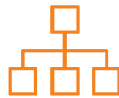
Columbus

Microsoft Dynamics 365 + Columbus Manufacturing

A single source of truth

We'll bring your core business processes onto a centralized location so you can benefit from real-time analytics in one place, not multiple disparate systems.

Industry-developed process mapping

Our implementation processes are backed with sector-specific best practices to help migrate risk and maximize your output and ROI.

Leaders in global manufacturing

Our leading status in global manufacturing (with clients including Mazak, Maersk and more) means not only do we know what we're doing but we're recognized for it.

Years and years of experience

We've successfully rolled out over 3,000 implementation projects in the manufacturing space and have been doing it for more than 30 years.

Access to the latest tech

Our close working relationships with leasing hardware and software vendors that give us access to the latest tech.

You gain access to 24/7 support

Access our global support services as and when you need them with Columbus Care.

Columbus

Advanced Discrete Manufacturing

Solutions

- Product Engineering

- Advanced Project Management

- Visual Project Planning

- Government Contracting

- RapidValue BPM Suite

- PTC Windchill PLM Integration

- Siemens Teamcenter PLM Integration

- Invoice Workflow

- Engineering Change management

- Quality Management

- Resource Management

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CymSTAR, a simulation engineering and manufacturing company, needed to upgrade from AX2012 to Microsoft Dynamics 365 to retain their ERP system supportability. They also wanted to integrate budget and forecasting modules to improve project management, forecasting and resourcing. Columbus helped the company migrate to the cloud and integrate Microsoft Dynamics 365, as well as remove an inventory customization that was affecting inventory visibility and control. The implementation was completed ahead of schedule and 15 percent under budget, and CymSTAR considers this ERP migration the most successful in their history. The company plans to engage with Columbus on a second phase of improvements.

Outcomes include:
- Capacity to track project actuals vs. project budgets for greater accuracy and efficiency
- Improved forecasting for resources and inventory with enhanced planning and procurement capabilities
- Greater inventory functionality, with visibility on actual inventory on hand and ability to streamline processes
- Analytics and intelligence capabilities that position company to reduce information gathering and reporting efforts, implement new forecasting and optimization models, and perform predictive analysis

PRODUCTS AND SERVICES	ORGANIZATION SIZE	INDUSTRY	COUNTRY
Migration from AX 2012 to Microsoft Dynamics 365	Medium (50-999 employees)	Simulation Engineering and Manufacturing	USA
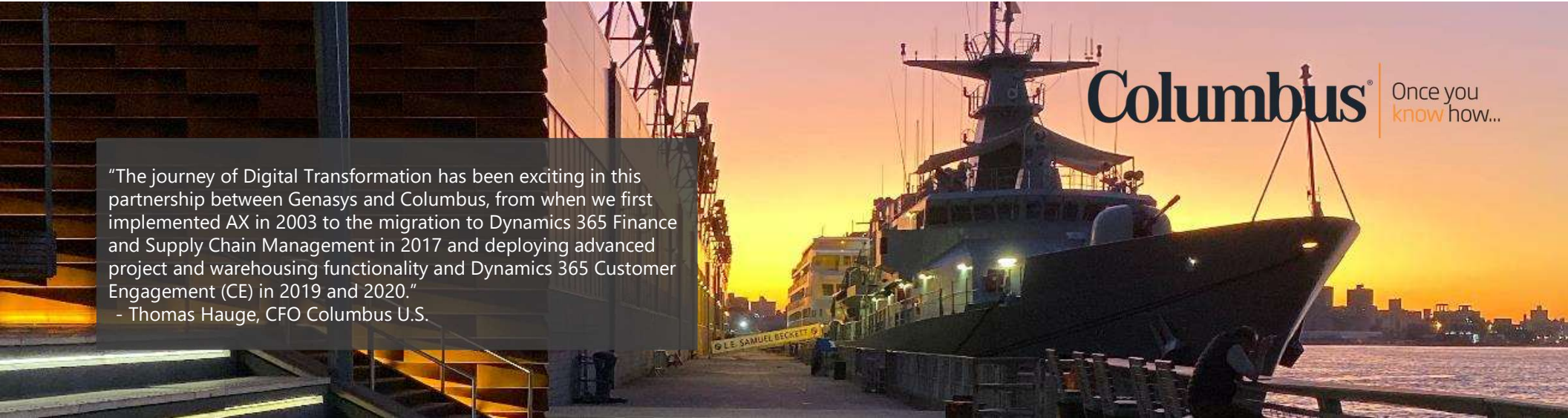
"The journey of Digital Transformation has been exciting in this partnership between Genasys and Columbus, from when we first implemented AX in 2003 to the migration to Dynamics 365 Finance and Supply Chain Management in 2017 and deploying advanced project and warehousing functionality and Dynamics 365 Customer Engagement (CE) in 2019 and 2020."
 - Thomas Hauge, CFO Columbus U.S.

High Tech manufacturing company implements Digital Transformation through Microsoft Dynamics 365 for Finance and Supply Chain Management

Genasys (NASDAQ: GNSS) is the global leader in Long Range Voice Broadcast Systems and Advanced Public Safety Mass Notification Solutions. Genasys systems are in service in 72 countries around the world in diverse applications including public safety, national emergency warning, mass notification, defense, law enforcement, critical infrastructure protection and others

Outcomes include:
- Tenured relationship with delivery and support teams; ongoing business process review to optimize existing systems
- Deep manufacturing industry knowledge and consulting expertise
- Align business objectives with digital and technology strategy

	PRODUCTS AND SERVICES	ORGANIZATION SIZE	INDUSTRY	COUNTRY
Genasys™	Microsoft Dynamics 365 Finance , Dynamics 365 Supply Chain Management, Dynamics Customer Engagement (CE), Project Accounting, Advanced Warehousing	Medium (50-999 employees)	Manufacturing	USA

"We are really excited about the opportunity we have at Mach Medical to make a significant impact on the cost, quality and performance of orthopedic implants in the U.S. and around the world. The partnership with Columbus U.S., leveraging Microsoft technologies and Industry 4.0 cutting-edge technologies, will support Mach Medical's plans to deploy a proprietary high velocity, single-piece flow manufacturing approach"

- Steve Rozow, General Manager, Mach Medical

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Life Sciences contract manufacturer revolutionizes the orthopedic supply chain with Microsoft Dynamics 365.

Mach Medical was established to revolutionize the orthopedic supply chain by creating a contract manufacturing operation capable of building the highest quality joint replacement implants from a patient's pre-operative surgical plan and supplying that product in time for their surgery. The company will employ cutting-edge Industry 4.0 methods as well as proprietary technologies in its high velocity, single-piece flow manufacturing approach to trim per-part manufacturing costs by 30%, decrease inventory holding cost by 80% and cut time-to-market for new products by 1-2 years.

Outcomes:
• Mach Medical plans to leverage Microsoft Dynamics 365 Finance and Supply Chain Management and Azure Machine Learning to create advanced analytical models that will be central to its goal of lowering inventory levels, trimming per-part manufacturing costs, and cutting time-to-market. Mach Medical also plans to expand Dynamics 365 with a portal accessible by physicians or OEMs for tracking the status of devices required for procedures.

PRODUCTS AND SERVICES	ORGANIZATION SIZE	INDUSTRY	COUNTRY
Microsoft Dynamics 365 Finance, Microsoft Dynamics 365 Supply Chain Management Azure Machine Learning	Medium	Life Sciences Manufacturing	USA

"They can generate more revenue with this solution by optimizing production; they will also generate more revenue because they will be able to generate more quality product."

- Michael Simms, Practice Director, Data & Analytics, Columbus U.S.

Manufacturer reduces quality control response time for corrections from 6-8 weeks to 2-4 days.

A glass fiber manufacturer needed to improve their quality control process and shorten the time it would take to make corrections. Previously, they were using Excel to analyze data from IoT sensors on temperature, material and other factors that impact breakage rates on a seven-day rolling basis. This not only took time – up to eight weeks to identify and fix the problem while the same production issues continued – it was also not the most accurate. And because they weren't comparing readings with production best practices over time, process improvements were not sustainable. In an Azure AI environment, Columbus Global significantly improved the quality control process with a model created with data from IoT devices and multiple systems. The result was shortened quality control response time from 6-8 weeks to 2-4 days. Other benefits included:

- Optimized production with less waste and improved product quality overall, with reduced breakage
- Easier consumption of information with customized Power BI dashboards featuring trends and control diagrams
- Ability to access and analyze data earlier

PRODUCTS AND SERVICES	ORGANIZATION SIZE	INDUSTRY	COUNTRY
Advanced Analytics in Microsoft Azure AI Power BI	Medium (50-999 employees)	Manufacturing	USA

"Using predictive analysis helps this manufacturer look at their business in the future, rather than in a rearview mirror."

- Mario Schwarts, Practice Director, Analytics & Business Insights, Columbus Global

Cleaning products manufacturer consolidates and leverages data from across systems to better adapt production to meet shifts in market and seasonal demand.

A manufacturer that makes and distributes industrial and consumer cleaning products stored data on their various product SKUs in multiple locations; retail-sales data lived outside of their core ERP solution. That made it difficult for the company to plan for expected – and unexpected – changes in the market. Using Advanced Analytics in Microsoft Azure AI, Columbus Global worked with the company to consolidate data in a data lake to build a reliable forecasting model based on historical sales, weather and other factors. As a result, this company could improve the distribution of products for better use of inventory and improve decision-making overall.

Benefits include:
- Improved efficiencies and savings from better raw-materials inventory planning
- Increased revenue due to better product distribution and readiness for seasonal demand
- Enabled forecasting of needs driven by market trends and weather forecasts to ensure they have the proper inventory to supply demand.

PRODUCTS AND SERVICES	ORGANIZATION SIZE	INDUSTRY	COUNTRY
Advanced Analytics in Microsoft Azure AI Power BI	Medium (50-999 employees)	Manufacturing	USA

Columbus® | Once you
know how...