

Streamlining Manufacturing Operations Using IT

DYNAMICS ERP FOR MANUFACTURING



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Techminds Group is a premier enterprise solutions company, delivering Microsoft Dynamics CRM, Dynamics NAV and enterprise SharePoint solutions to clients all over the world. We are a Microsoft Certified Partner in Data Management Solutions bringing value-added solutions to meet the needs of our customer. We strive hard to return great results to our clients and a great career to our staff. We leverage the power of the market to create an effective solution to achieve the best result without compromising quality.



Cloud Domination

Cloud computing has permeated the manufacturing sector — and for good reason. These technologies have revolutionized the operations of both large and small manufacturing companies. By meeting demands from the supply chain to distribution, it's only a matter of time before industry-wide adoption is fully realized. According to new research, the migration to cloud solutions will be swift, and a look

at the figures reflects these perceptions: By 2017, over 50% of manufacturing departments are aiming to ramp up their enterprise use of cloud services. Why the urgency? Well for starters, for those who have implemented cloud solutions into their operations, the rewards have been plentiful—from cost-savings to increases in productivity, process automation and enhanced data insights.

ABCs of ERP

But let's backtrack a bit to explore how technology has historically been used to enhance capabilities and functionalities in the manufacturing sector. A look into Enterprise Resource Planning (ERP) systems makes for a good starting point. Across industries, leading companies have recognized that in order to drive a competitive edge, leveraging information technology is integral in creating transformative business experiences. ERP systems allow these organizations to do just that by harnessing the power inherent in data and information. By connecting processes, information, and individuals across functions, plants, companies and geographic locations,¹ these solutions amplify enterprise-wide communication and coordination in

real-time and with increased precision. Furthermore, specific to manufacturing, organizations can reap rewards in terms of:

1. **Rapid response times**—crucial for those last-minute requests, rush orders, status updates, and the like,
2. **Improved on-time delivery** to boost customer experiences,
3. **Better resource management**—which greatly impacts planning, management decision-making and production and
4. **Improved interaction** with customers and suppliers—again, this drives positive customer experiences and increased retention rates.

Additionally, ERPs can impart better informed forecasting of product demand and production, enriched insight on plant performance across multiple metrics² and in terms of cost-savings, these systems can reduce operational and administration costs by 23% and 22%, respectively.³

It's clear that in an increasingly global and technologically-powered world, it pays to invest in information management tools that are optimized for the consistent improvement of manufacturing processes.

For many organizations, Microsoft Dynamics has been used to seamlessly integrate daily operations, and with a variety of offerings, there's a different "flavor" to suit unique industry needs. These include Dynamics AX, GP, NAV and CRM which has found popularity among enterprise organizations in manufacturing, distribution services, retail and even in the public sector. In relation to manufacturing, Christian Hestermann, an analyst at research giant, Gartner says, "*AX allows support of multiple sites or business units in one single instance,*

including those that operate in different countries. Lean manufacturing principles are one example of advanced manufacturing-oriented functionality."⁴ Similarly, Dynamics GP proves advantageous for manufacturing operations, as it is user- and implementation-friendly and agile to boot. Additional capabilities in terms of reporting tools and workflow capabilities to simplify business processes and approval, make this platform a perfect fit for manufacturing operations. Integration with Microsoft Office and SharePoint 2010 allows for ease of accessibility and boosts communication channels with team members, customers and suppliers alike. Not to be outdone, Dynamics NAV and CRM work in tandem and bridge applications that run finance, sales and operations with established Microsoft Office applications. Specific to global manufacturing operations, multi-company, multi-language and multi-currency functionalities can be counted as returns.⁵ This solution is molded for managing and streamlining international operations and global supply chains, and much like its counterparts, boasts robust reporting and analytical functionalities for enhanced enterprise-wide insights.

True Assets

Keeping enterprise data in silos can prove detrimental to organizational communication, collaboration and ultimately, productivity and profitability. What's more, silos are said to restrict clarity of vision across an organization, which often leads to poor decision-making and a general lack of cohesiveness.⁶ To thrive, organizations should allow for the free- (but secure) flow of information so that it can be optimized across all departments in an enterprise. The bottom line is that every organization needs to ensure that their data is transparent and wide-reaching, and with the proper tools and processes in place, this can be achieved.

From a manufacturing perspective, this is no less true, as information accessibility is increasingly gaining equal footing with the possession of assets and as

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the transfer of knowledge is increasingly prioritized. This is typically achieved with cloud computing solutions and benefits can be tapped at almost every juncture of the manufacturing process, but to provide a snapshot, the following can be achieved:

- **Reduction of supply chain costs:** With enhanced insight into supply chain data, opportunities to source qualified bids from accessible supplies increases competition among this group and ultimately lowers the



costs of purchased goods. Along with this, are opportunities to expand to a compendium of suppliers across the globe and increased customer-supplier collaboration.⁷

- **Flexibility:** Flexibility In terms of capacity and operations can also be achieved through cloud software: accommodating new resources or modules is easily accomplished; and vice versa: streamlining capabilities to meet present needs. Flexibility in terms of global reach is also a reality, as business demands can be met irrespective of geographic constraints.
- **Scalability:** Going hand in hand with flexibility, is scalability. Cloud services enable enterprises to meet peak operational and resource demands and if warranted, to scale back when such needs dissipate. This approach can reduce product development cycles and costs.⁸
- **Cost-reductions:** Speaking of costs, cloud computing software is proven in its ability to reduce capital expenditures and IT labor costs. This is typically achieved through lower staffing and in-house licensing costs. Additional savings can be realized through reduced equipment and power usages generated from in-house servers and systems.⁶ What's more, the appeal of transferring the responsibility of maintaining

these systems to outside vendors is apparent.

- **Swift product launch:** Using cloud data and capabilities, manufacturers can run large simulations for product development, thus eliminating the need for costly resources needed for physical testing and evaluations.

Currently, however, it seems cloud options for manufacturing pale in comparison to those available for financials, human capital management and procure-to-pay organizations. In a recent Gartner Research Circle survey, 30% of respondents polled planned to keep their ERP systems on site, and dominating this group were manufacturers.⁹ Yet, the survey possesses one big caveat: Neglecting to account for the rapid rate at which two-tier ERP systems—the practice of running two ERP systems (one larger system at the corporate level, and one smaller system at the plant, division, or subsidiary level) at once¹⁰ —are proliferating in the manufacturing sector. If the question was framed accordingly, then the Gartner results would show that yes, in fact, cloud-based ERP systems are the wave of the future for global manufacturing operations—and for good reasons:

1. **The ability to achieve faster time-to-market** while reducing cost of quality,
2. **Legacy ERP systems lack scalability to**

support 21st century compliance— legacy ERP systems don't have the data models to support current quality management and compliance requirements and are relegated to (those dreaded) silos.

3. Mobility is unifying and streamlining departmental functions from analytics to approvals. Cloud accessibility means swifter more intuitive and integrated decision-making.⁹

To Cloud

In these evolving times it seems cloud-based ERP systems are bringing manufacturing operations full circle, and in the face of industry progression, Microsoft Azure is setting the stage.

With the impending release of the subscription-based Dynamics365 platform, ERP operations will now go to cloud—Azure—where they can be optimized for full potential and operational efficiency. In this way, manufacturers will be well-equipped to manage an array of business functions including: financials, field service, sales, operations, marketing and customer service.¹¹ This is made possible through a conjoining of current customer relationship management (CRM) and ERP cloud solutions into one cloud service. Ultimately, the benefits of built-in insights, predictive intelligence and workflow optimization will be delivered through simple, easy-to-use, mobile experiences with offline capabilities.¹² Rounding out these benefits are increases in a structured workflow, collaborations and measurable outcomes of productivity. Further, traditional methods of maintaining and operating Dynamics systems in on-premise server environments, in which data is easily segmented and siloed, are eliminated. Instead, users are connected on a platform that enables real-time visualization and interactions with enterprise data to develop key insights that fine-tune business decisions.¹³ Additionally, virtual collaboration across

the organization, expansion into new and emerging markets and the opportunity to simplify, scale and effectively manage IT investments are bonuses.¹⁴

Microsoft Azure is emerging as a pioneer of cloud computing solutions across industries. For manufacturers, this platform actualizes highlighted benefits in numerous ways and adds value to companies of all sizes. Opportunities to innovate and implement novel business models and processes with greater agility and lower costs are all presented with this solution. Azure can be used for remote asset management and is able to capture, process and disseminate vital information pertaining along the supply chain. Performance tracking in real-time further refines these capabilities. As an Infrastructure as a Service (IaaS) model—the operational framework that powers servers, storage, networks and operating systems⁷—Azure allows manufacturing organizations to build, manage, and deploy applications through a global network of Microsoft-managed data centers and supports a variety of programming languages, tools, and frameworks, including Microsoft-specific and third-party software and systems.¹⁵ As a dominant core technology supplier for manufacturing processes, Azure is primed to leverage and advance cloud possibilities in the manufacturing operations management (MOM) space for years to come.

A Winning Combination

In essence, the manufacturing process is a complex chain comprised of seemingly countless steps and mechanisms all requiring scalability, accessibility and connectivity with a range of operating systems

and pools of data—all done cost-effectively to top it off. In response, technological solutions such as cloud services are being used to advance product development and cost-reduction efforts, while



promoting efficiency. This enables manufacturers to take the technological reigns as they reap a number of benefits. So you see, in the manufacturing world, cloud computing affords opportunities to transcend beyond accessing and sharing data; cloud computing now allows manufacturers to connect machines, materials and people in real-time. The future of the manufacturing industry points to a great dependence on cloud technology. As manufacturers envision ways to gain full value, comprehension and a solid ROI from their data, cloud solutions are emerging as an integral element in

Conclusion

Microsoft Dynamics ERP is sold and deployed by a global network of solution specialists known as partners or resellers like Techminds Group. We will price and implement your business solution based upon your unique needs and can provide implementation and support services like solution configuration, training and on-going support targeted at getting your business up and running on Microsoft Dynamics.

Our Microsoft Solution consultants can work with you to integrate and customize the software best suited to your needs.

meeting these objectives, particularly for sake of remaining competitively viable in a continuously evolving industry. In this setting, where there is constant pressure to increase accuracy and capitalize on internal intelligence and knowledge to make every supplier, distributor and service interaction count, cloud-based strategies are key.¹⁶

In the manufacturing sector, knowledge is indeed power, and this knowledge is stored in the cloud. And Dynamics ERP accessibility on Microsoft Azure is taking companies there—here's to a dynamic future.

We aim to provide our customers with software solutions that incorporate best-of-breed IT products.

Our current affiliations and partnerships with some of the best out there in the technology world help us help our clients as we could be their value added partner. We aim to provide our customers with software solutions that incorporate best-of-breed IT products. Our core competency lies in enabling businesses to realize the full potential of their IT investments by building business value into technology solutions.



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