

Accelerating Business Change Through Next-Generation ERP — Call to Action for the Aerospace and Defense Sector

WHITE PAPER

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INTRODUCTION

IDC Manufacturing Insights recently published research from a worldwide survey of 375 discrete manufacturing leaders across 12 countries. The resulting white paper — *In Pursuit of Operational Excellence: Accelerating Business Change Through Next-Generation ERP* (IDC #IDCWP47T) — summarizes the key findings from this survey and provides essential guidance for manufacturers developing their own business strategies. IDC Manufacturing Insights now provides essential guidance and a call to action for aerospace and defense in order to achieve success in the current business environment.

SITUATION OVERVIEW

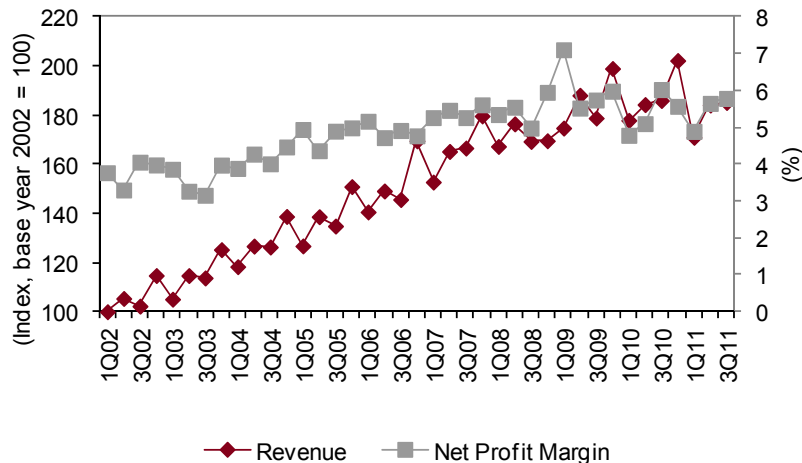
The aerospace and defense sector is typically highly resilient to economic downturns. Long product development and production programs and stable order backlog help the industry maintain a more stable business if compared to other discrete manufacturing segments. But a number of factors, including increased variability in civil aviation orders, budget cuts in government defense spending, the rise of new competitors from emerging markets, and new regulations governing materials and energy efficiency coming into force, are leading aerospace and defense companies to rethink their business strategies in the light of more business efficiency, rationalization, and performance.

The industry's performance over the past 10 years is shown in Figure 1, which displays IDC Manufacturing Insights' benchmarking database Global Performance Index (GPI). The industry showed very good resiliency to the 2008/2009 crisis, with almost no impact on profit margins and revenues; a performance that is absolutely outstanding if compared with other discrete manufacturing segments.

What is evident, though, is a slowdown in growth for both indicators. Indeed, aerospace and defense companies are responding to these market pressures by pursuing a "shrink-to-grow" strategy aimed at excelling on a few profitable core activities as a way to improve their time-to-market and tackle growth opportunities more proactively.

FIGURE 1

Worldwide Aerospace and Defense Revenue and Net Profit Trends, 1Q02–3Q11



Note: The Manufacturing Insights Global Performance Index (GPI) tracks growth metrics from 800+ publicly traded global firms in the manufacturing and retail industries. The GPI tracks general trends in manufacturing and retail subindustries based on the performance of a sample of companies from those subindustries; historical data in the index may be adjusted between quarters based on the addition or subtraction of companies in the index or company restatements of historical filings. Estimates by Reuters.

Source: IDC Manufacturing Insights, 2012

The Quest for Profitable Growth

The results of our worldwide survey suggest that manufacturers want to make sure they achieve profitable growth. To do so, manufacturers in the aerospace and defense industry are implementing a well-balanced strategy that combines cost containment with growth opportunities:

- **Sell added-value services on products** — More than 80% of our aerospace respondents want to sustain growth by selling more added-value services on products. Attempting to create a competitive edge in respect to aggressive competition, aerospace and defense firms have sought to provide their clients with repair, maintenance, and overhaul services. The end goal is to create a more engaged relationship with their clients and improve customer fulfillment.
- **Invest in product innovation** — Product innovation is key in this industry, where winning products are those that offer maximum reliability, low cost of ownership, and performance. Nearly 70% of aerospace and defense organizations plan to invest in product innovation over the next three years, with greener environmentally friendly products as the main driver.

- **Reducing the number of suppliers** — With the increasing supply chain complexity and elongation in the aerospace and defense industry, more than 90% of respondents are focusing their cost containment initiatives primarily outside the four walls of their enterprise. Their key strategy is primarily focused on reducing the number of suppliers and shortening and optimizing the supply chain.

ESSENTIAL GUIDANCE

As seen in the IDC Manufacturing Insights survey, the emerging challenge for the aerospace and defense industry is the dramatic growth in complexity:

- Almost 60% of companies in the industry expect the level of complexity to increase or significantly increase over the next three years. No company expects there to be less complexity in the future.
- Market, operational, and IT complexity are the main business areas that are expected to become more complex. Compared with other discrete manufacturing industries, the aerospace and defense industry has a higher than average expectation for increase in market complexity.

Focus on Mastering Complexity

Over the next three years, aerospace manufacturers around the world will undertake a number of critical business initiatives aimed at mastering market complexity and driving out complication from their operational processes and IT systems.

- **Improve demand planning and forecasting** — The picture of the aerospace and defense industry today is that of a sector undergoing a strong evolutionary process, changing direction from product to service. At the same time, competition is heating up — with emerging newcomers rivaling well-established traditional players — while demand is pretty stable, with governments and civil airlines cutting budgets and becoming more stringent in terms of fulfillment needs. In this context, aerospace and defense organizations need to completely rethink the way they go to market. The first and most important process they need to improve is their ability to understand where the market is going by improving their demand planning and forecasting. This is particularly important for aftermarket services and spare parts.
- **Inventory optimization and management** — Aftermarket services and maintenance, repair, and overhaul (MRO) activities are becoming the very areas on which aerospace and defense manufacturers will focus to sustain more growth and gain profits. The most critical challenge for aerospace and defense is learning how to profitably manage the fast-paced business environment required by MRO and aftermarket services. Guaranteeing

components/spare parts availability on demand, managing a network of distribution centers, forecasting sparse demand items, implementing postponement initiatives, and delivering constant customer service levels everywhere in the world all represent new capabilities at which this industry has to rapidly become excellent. The ability to optimize and manage inventories properly is among the most compelling capabilities.

- **Doing business sustainably** — The aerospace and defense sector is one of the most heavily regulated in the world, and companies see compliance mandates as a primary driver for environmental initiatives. While in many other sectors, regulations are often seen as a compulsory burden, for aerospace and defense they provide business opportunities, instead (e.g., by forcing airlines to revamp their fleets). Companies in aerospace and defense need to anticipate regulations in their product development strategies and aggressively lobby within public bodies to have their product features set as the next "standard".

The Role of IT

Aerospace and defense manufacturers understand the inadequacy of their current IT systems. They need to overcome the current system fragmentation and encourage a more collaborative environment with greater visibility and intelligence of information, internal to the enterprise and external along the value chain. IDC Manufacturing Insights' survey found that:

- In nearly 70% of cases, information needed to take important decisions on product or service innovation is stored in too many different IT systems. Also, fast decision-making in the aerospace industry today requires adequate integration with partners along the value chain, which organizations responding to our survey do not think they have.
- In particular, nearly 60% of aerospace respondents believe that their ERP in place does not support the business well in enabling faster decision making. They believe that implementing collaborative- or social networking-style features on their ERP will impact future business achievements. In fact, 85% of aerospace respondents said they need these new features to help speed up business processes and rapidly adapt processes to change.
- Aerospace organizations recognize the importance of modernizing traditional IT, leveraging what IDC calls the "four IT forces": cloud computing, social business, mobility, and Big Data analytics. Indeed, the vast majority of respondents believe that the four IT forces will change the way they work in the near future. However, nearly 15% believe there will be no impact at all, making aerospace the most conservative industry.

- Delivering IT productivity and business value at the same time is the real strength of the four IT forces. We expect aerospace organizations to make foundational investments in these technologies to improve the value of their IT systems and in particular their ERP.

Call to Action

The following points provide key areas of focus for aerospace and defense manufacturers. By considering the following questions you will be able to identify areas of improvement in the drive for operational excellence.

- Balance growth with cost cutting
 - Are you focusing your growth strategy on providing value-added services on top of your products?
 - Is optimizing the supply chain, shortening it, and reducing the number of suppliers a key priority for you?
 - Are greener and environmentally friendly products the main driver for product innovation in your company?
- Improve customer fulfillment
 - Are you able to adequately plan and forecast the demand for aftermarket services, spare parts, and MRO?
 - What is the current level of inventory and working capital you have in support of aftermarket, spare parts, and MRO processes?
 - Are you pursuing improvements in how to serve your existing customers best?
- Implement an operational ERP
 - Do you think that the IT systems you have in place are effectively supporting your business challenges?
 - Does your current ERP system support you well in speeding up decision making?
 - Do you recognize the importance of modernizing traditional IT systems with the four IT forces: cloud computing, social business, mobility, and Big Data analytics?

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