

AMGI Newsletter

Issue 6

About the Newsletter...

The AMGI Newsletter is published periodically and will focus on practical content in the areas of Strategic Trends, Business Transformation, Collaborative Product Development, Managing Change and Enterprise Management Systems. We will use our extensive international connections in industry, consulting, academia, Universities and professional association (SCPD, IMechE, IEEE, ASME, SME, CAMC) etc as well as our own consulting experience to keep you abreast of Strategic innovation trends.

Suppliers: Accelerate your global performance! Innovative supply-chain practices are trickling into the aerospace industry, but not fast enough to save many manufacturers.

Producing turbine airfoils for its jet engines used to be a complicated affair at Rolls-Royce plc. The company had to keep track of four tiers of suppliers, monitoring a jumble of contracts, producing schedules and quality standards. Today, Rolls-Royce is able to hold a single source accountable for the air-foils, practically down to the level of digging precious metals out of the ground. That source is Alcoa Howmet Prime operations, which assumed responsibility in August for managing air-foils supply chain. The result: Production schedules have been shortened about 10%, costs are declining and Rolls managers have more time to concentrate on their core business.

Unfortunately, the Rolls-Royce Howmet arrangement stands out in the aerospace and defense industry, where innovative supply-chain management practices are still the exception, not the rule and change occurs at a glacial pace.

A new report by IBM Business Consulting Services concludes that the aerospace industry is at a critical inflection point and warns that players need to adjust their mindsets to focus more on collaboration and less on dominating the marketplace. The report finds that aerospace companies are having difficulty adjusting their culture, processes and infrastructure to improve collaboration. In fact, some suppliers are still six or seven tiers removed from a prime contractor.

In a new survey of North American aerospace executives conducted by Computer Sciences Corp. (CSC) in co-operation with aviation *Week & Space Technology* and the Aerospace Industry Assn. Of 349 respondents, 41% said they did not know their inventory "turn Rate"-a measure of how quickly materials are moved through a factory-over the past year. Another 77% of respondents declined to answer the question, "that blew me away." Says Pete Wiese, a managing partner at CSC's aerospace and defense consulting practice, "That's one of the basic metrics."

IT WOULD BE COMFORTING to think that by now, some 15 years after the aerospace/defense industry suddenly found itself in a state of hyper-competition, companies have started waking up to the brutally competitive pressure of the global economy. And they have-but in largely isolated pockets of business.

More than 70% of aerospace work is outsourced today, up from 50% in the 1970's and the trend is accelerating as prime contractors offload more old-line manufacturing responsibilities and focus on systems integration. Witness the Boeing Co., which is banking on a global chain of suppliers stretching from Japan to Italy to develop and build major systems for its new 7E7 passenger jet.

The increase in outsourcing is creating a huge wave of opportunity for thousands of aerospace suppliers. But there is a flipside: that same wave is washing over many more suppliers, especially those that stick with the low-brainpower paradigm of manufacturing niche components to customers' specifications and bring little innovation to the table.

Indeed, a shakeout is underway, according to industry executives and consultants.

Even as they outsource more work, aerospace giants continue to pare back the number of suppliers they search for partners that can win as they search for partners that can best help them improve quality and reduce costs.

Winners will be those companies that can move up the value chain. Offering a mix of management skills, cutting edge technology and collaboration across the supply base to improve efficiencies and cut costs. Prime contractors also are increasingly relying on suppliers for high-demand commercial

technologies, such as computing, wireless communications as computing, wireless communications and flat-panel displays.

“You can’t win a competition if you don’t bring a substantial amount of answer to the competition. You have to bring a low-risk, high value technology to the bid, or you are not going to win”.

The Shifting supply-chain landscape has spurred” product-oriented consolidators” such as L-3 Communications Holdings, which ha acquired dozens of second-and third-tiers suppliers over the last few years.

Change also is being driven by the Pentagon’s focus on network-centric warfare, which is requiring prime contractors and their suppliers to find ways to tie together massive systems of multiple platforms, such as the Ballistic Missile Defense system or the U.S. Army’s future Combat system.

Many Executive and consultants say the aerospace supply chain is years behind other industries such as automobiles, consumer electronics and construction.

There is another 10 years to go.” Says Jon B. Kutler, chairman and CEO of aerospace investment bank Jeffries quarterdeck.

Sharing information and rapid collaboration is just so key to taking time out of the supply chain.

A NEW ERA

The aerospace industry is in the midst of a shift to an integrated supply chain where everyone from the prime contractor to the smallest supplier takes a stake in design and production, from start to finish. But primes and their suppliers face challenges Among them:

EVOLVE OR DIE

Prime contractors are offloading more product-oriented work to suppliers as they focus on integrating large systems. But primes are much more discriminating, choosing fewer more capable suppliers. To succeed, companies must offer the ability to manage, innovate and collaborate.

MANAGING THE RECOVERY

The civil aviation industry’s rebound will place significant stress on suppliers, which cut capacity during the last three years and moved into other business areas, primarily defense. Prime contractors may need to invest money in advance to guarantee timely availability of critical parts and ensure adequate supply chain capacity and flexibility.

GLOBALIZATION

Outsourcing work overseas reduces labor costs and can be leveraged to boost the sales in other nations, but a broader supply network is more vulnerable to disruption and may not be produce the anticipated lower costs. Efforts to create integrated global networks of suppliers have been slow by post=Sept. 11 security concerns.

COPING WITH COSTS

Hyper-demand from China is expected to drive up the price of aluminum, titanium and other materials critical aerospace products. Suppliers should not assume they can obtain critical materials when they need them or pass on commodity price increase to the end customers. Improved margins will have to come from business processes and other means.

CULTURE SHOCK

Creating a collaborative, integrated supply chain sounds good, but it requires huge changes in strategies and mindsets for and industry not used to radical change. Suppliers need to adopt a” big picture: view of the industry, understanding both the customer’s needs and where they fit into the integrated supply chain.

TO BE SURE....

While many aerospace suppliers are far short of where they need to be, it is unfair to benchmark them against other industries that are based on comer industries or mass-produced units. Aerospace products require a high level of engineering and, with lives on the line, must build-in redundancy, which adds to their cost and complexity