

Diversity/Careers

in Engineering & Information Technology

Technical Workforce and Supplier Diversity

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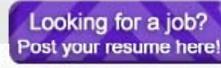
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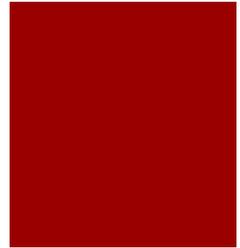
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Supplier Diversity

Ford launches a game-changing program for minority businesses

Ford's Joint Technology Framework (JTF) initiative is a quantum leap away from traditional support programs like mentoring or networking

In October 2008, Ford Motor Co launched its Joint Technology Framework (JTF) initiative.

Armando Ojeda, director of supplier diversity development for Ford, explains: "Last year, external consultants gave the industry a profile of automotive suppliers at risk of not surviving the downturn.

"The profile was a general one and applied to all suppliers, but it described the vulnerabilities of the minority auto supplier base very well. The businesses that are most at risk are closely held, financed primarily with debt capital and collateralized with personal assets. They make a commodity product and have significant market competition. Their success depends on offering a low price, and they're swallowed up by competitors fairly easily."

Ford's new program aims to change many of those factors. "We launched this program to help make our long-term preferred minority suppliers stronger and more sustainable. It can help them be more profitable and enhance their long-term viability," Ojeda says.

Sharing proprietary technology

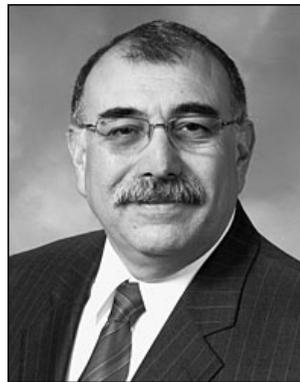
Ford is offering to give a list of preferred vendors access to Ford's own patented ideas and intellectual property. Vendors will then work jointly with Ford to develop products and/or processes that will give both the vendor and Ford a competitive market advantage.

"We will work with our suppliers to identify and develop applications using Ford resources and the vendors' areas of expertise," Ojeda says. "The definition of success would be a commitment to use the jointly developed applications on future Ford vehicles. If the applications are successful, and we fully expect that they will be, we will license the specific technology to the supplier who helped develop it, and the supplier will be free to take it to other customers both inside and outside the auto industry. To the extent that they can sell it, it generates new business for them and royalties for Ford."

The program is also designed to boost technical capacity for minority- and women-owned suppliers. According to Tony Brown, Ford group VP for global purchasing, Ford wants to help its minority suppliers move toward a business model that competes on both technology and cost. The program will also help them "attract the engineering talent and new sources of capital to migrate these technologies to the next level," Brown declares.

Building from within

The arrangement helps minority suppliers nurture their own internal capacity for innovation, for managing technology and for dealing with intellectual property. The JTF is a key part of Ford's



Armando Ojeda is Ford's director of supplier diversity development.

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Aligned Business Framework (ABF), which emphasizes stronger collaboration between Ford and its suppliers and provides expanded opportunities for minority- and women-owned businesses.

Success is in sight

The first beneficiaries of the JBF program were longtime Ford suppliers and M/WBEs: Bing Group, Dakkota Integrated Systems, Flex-N-Gate, Gonzalez Production Systems, Grupo Antolin Wayne and Prime Wheel.

Later Ford expanded the program to include two recently-named ABF suppliers: Saturn Electronics, which supplies Ford with transmission products, and Piston Automotive, one of Ford's largest sub-assemblers, owned by a former Detroit Pistons basketball player.

"We have a lot of suppliers asking to participate," says Ojeda. "But it's important to roll out the program in a deliberate and orderly way with a focus on suppliers that we expect to keep in our supply base long-term, and which we have made a commitment to develop."

A cross-functional team has to be established for each JTF supplier, including people from purchasing, product development, advanced engineering and Ford Global Technologies, the subsidiary that manages Ford's intellectual property. "It takes a while to identify the right application, build the business case, test it and put it in the product cycle," Ojeda notes.

"But to their credit, many of our suppliers are looking ahead to their own futures as well. They have things in the pipeline that they want to advance with our help, or products they foresee as viable, and want to find out if there's something in our Ford Global Technology database that they can use to develop their ideas."

JTF in action

For an example of the program at work, Ojeda points to Gary Gonzalez, head of the 125-employee Gonzalez Production Systems, with plants in Pontiac and Oak Park, MI and Querétaro, Mexico. His company builds sophisticated assembly equipment, from large robotic systems to smaller tools, used by customers in the automotive, aerospace and defense industries. Gonzalez Production Systems and its predecessor have been working with Ford since 1977.



Gary Gonzalez heads up Gonzalez Production Systems, a supplier of assembly equipment from large robotic systems to smaller tools, with plants in Michigan and Mexico.

JTF, Gonzalez says, "gives us an opportunity to find a commercial use for technology developed in Ford labs that has not been commercialized, develop it for commercial use, then translate it for use in other industries. Ford, of course, gets the new products first since the basis is in their technology. But long-term expansion to other industries helps to grow our business both inside and outside the automotive world and gives Ford a return on investment."

Market advantage

Gonzalez notes that minority firms have historically used a low cost structure as a way to build business. But with globalization of markets, cost savings are no longer the driver. The new products that JTF helps develop could provide an extra edge in innovation.

When the Gonzalez management crew found out in October 2008 that they had been selected for the pilot program, they studied several Ford technologies with long-term commercial potential that fell within their expertise. They decided that an ultrasonic welding process would be the quickest to bring to market.

"Companies at our level do not have an R&D focus," Gonzalez points out. "This look behind the Ford curtain has allowed us to see how it's all done and how we can develop some of the ideas and move forward with them."

First product from the venture

The first product Gonzalez is developing with Ford is an aluminum bonding process to take the place of traditional fastening techniques. The ultrasonic process bonds metal to metal without traditional welding or rivets. It also helps reduce the need for steel, making vehicles lighter.



"The process has been used for years in the plastics industry but not with aluminum, which at this stage still requires expensive welding," Gonzalez reflects. "This new technique shows promise in eliminating the cost of both high-frequency welding and self-piercing rivet applications."

Ford had developed the patent for Jaguar but had advanced only to a certain point. Now, with financial support from Ford, Gonzalez Production Systems is refining the technique, constructing the operational readiness pilot, taking the pilot into a plant environment and applying it to the Ford Mustang.

New and existing technologies will be tested side by side. Speed in development is a necessity because Ford is working on vehicles two or three years out and needs to prove that the technology is viable to have tools ready for the next generation of automobiles.

Bright future

The new technology under development can potentially be used in heavy trucks, in trains and buses, even in space.

Says Gonzalez, "This project got us to thinking outside our field. We're developing other new technologies, like vision-aided robotic guidance. Now we're thinking more about R&D: what else we can bring to the table as we move forward in today's world."

For Gonzalez, being part of this new direction in corporate support has been "more than a test of our abilities; it's been a lot of fun. There are challenges associated with a new direction, a lot of legal issues to consider, but the fun is working with everybody dedicated to the task. Nobody's pulling the train back."

"For Ford," Ojeda says, "this is the right thing to do. It's the next generation of supplier diversity development. When our Group VP, Tony Brown, announced the JTF concept at a Billion Dollar Round Table summit last year, it blew people away.

"Now the program is under way. And it's working."

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