



Summer 2001

ADVANTAGE

"Helping small business achieve a competitive advantage through NASA technology."

Connections to Success: Garrett Morgan Initiative Gives Companies the Advantage

BITEC - *Providing quality, reliable and responsible machine tools for industry*

BITEC has distinguished itself nationwide as a reputable machining tools manufacturer. As a result, NASA Glenn engineers designated the Dayton, Ohio company as a source for specimen preparation machining with their suppliers. This custom precision machine shop utilizes state-of-the-art computer numerically controlled (CNC) machine tools for critical applications. Among the industries served are aerospace, agriculture, aircraft, defense, mechanical testing, medical, nuclear and petroleum. BITEC's services include:

- Mechanical test specimen preparation
- Composite development machining
- Custom CNC machining

THE CHALLENGE

BITEC president Beverly Bleicher helped her company achieve success as a dependable machine tools manufacturer. Her goal, however, was to enhance existing markets for the company's systems and products. In addition, BITEC needed a more strategic focus for the company.

GARRETT MORGAN INITIATIVE ADVANTAGE



Wright Technology Network (WTN), a Garrett Morgan Initiative subcontractor, facilitated a key introduction with NASA Glenn and GLITeC that resulted in new contracts for BITEC. The outcome—BITEC's sales as a direct result of NASA Glenn's assistance increased from \$50,000 in 1997 to \$200,000 in 1999. In addition, program consultant Flowen prepared a Personal Opportunity Path Analysis

which defined a marketing approach for securing business with NASA. BITEC, a former Garrett Morgan Initiative company, followed through with the recommended action plan, kept in touch with NASA, and secured several small contracts. In May 2001, BITEC was one of 14 winners out of 67 bidders who received a contract with NASA Glenn for its Machining & Fabrication Blanket. The contract, for a minimum of \$366,000, has a possible option for four additional years.

SANTEC SYSTEMS, INC.- *Solving detection and inspection problems for industry and medicine*

Santec Systems, Inc. pioneered the development of acoustography, an ultrasonic imaging process that offers a low-cost and efficient inspection method for the nondestructive

testing (NDT) market. The technology, unlike conventional point-by-point inspections, allows full-field, large area testing of industrial materials. Santec, located in Wheeling, Illinois, also manufactures and sells acoustography-based NDT products and services. Acoustography is a promising testing and inspection method for the aerospace, defense, automotive and microelectronic industries. The technology also has potential applications in medical imaging.

THE CHALLENGE

Santec president Jas Sandhu realized that he needed to tap into new resources and networks to improve the firm's technology and to help the company grow.

One way to meet these objectives was to explore the use of NASA technology.

NASA also offered potential procurement opportunities for Santec's ultrasonic testing process designed to monitor the space agency's aging aircraft. Sandhu also recognized the need for better organization and a more strategic business strategy to help the company reach its goals. "We needed the ability to develop a strong intellectual capital portfolio and become more savvy in our marketing," said Sandhu. Finally, Santec required additional funding to support its R&D, and assistance in developing a clear commercialization plan.

GARRETT MORGAN INITIATIVE ADVANTAGE

In August 2000, a Garrett Morgan Initiative multidisciplinary team conducted an assessment with Santec to determine the company's most critical needs and to develop an action plan. The resulting assessment summary proved to be a practical, working document that identified desired outcomes, required actions, the persons responsible and a reasonable timeline. "The summary was a very important milestone activity for us because it helped us to crystallize what we had only thought about," said Sandhu. The team provided direct assistance to support Santec's technology improvements, product line enhancements, marketing, and commercialization and business planning. The firm continues to use the document to monitor their progress.

Other significant benefits to Santec included securing research documents and technical articles for comparison product studies, and introducing Santec to NASA NDT researchers. When Santec was preparing to attend a major international trade show of the Radiological Society of North America, the Garrett Morgan Initiative arranged and paid for a consultant to accompany Sandhu.

In May, Santec representatives attended the Technology Showcase, a valuable networking event for the company. The Garrett Morgan Initiative paired the firm with several major industrial companies for potential partnering activities. In addition, Santec was named one of eight winners of the 2001 NASA Glenn Garrett Morgan Initiative Commercialization Assistance Awards. Santec will use the \$30,000 cash award to conduct test marketing of its acoustography-based ultrasonic testing process and to support travel to two major industry trade shows. Finally, a Garrett Morgan Initiative introduction to the NASA Illinois Commercialization Center resulted in Santec winning a \$74,855 award to conduct research studies that will help validate Santec's technology.

