



**SBIR/STTR SUCCESS**

When government personnel need to make informed decisions, they turn to Frontier Technology's patented suite of decision-making analytics and tools.



# FRONTIER TECHNOLOGY, INC.

When the Department of Defense (DOD) needs to analyze a lot of data in a very short period of time, the organization relies on analytical software to help it make the most informed decisions possible. By providing the data-rich DOD and its end customers with software solutions that interact seamlessly with those pools of information, FTI has made a name for itself in the complex realm of engineering analysis.

#### **PHASE III SUCCESS**

\$120M in awards including a \$65M GSA Phase III contract and a \$50M Army Phase III contract

#### **AGENCIES**

DOD, NASA, DOE

#### **SNAPSHOT**

2015 Tibbetts Award recipient; Ohio-based Frontier Technology, Inc. (FTI) assists its government clients with engineering analysis solutions to help improve decision-making; grew organically from 2 founders to over 100 employees.

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Logistically, the technology aims to dissect the decisions we make everyday with facets of our left brain and right brain. FTI's complex tools and algorithms can find patterns in the data that enable users to make informed resolutions that go far beyond "gut feelings." With massive amounts of data to analyze, FTI realized that people want to get educated before they make a major decision that affects many areas of a DOD organization.

With the goal to provide customized DOD operational and acquisition decision-making software products, FTI began by focusing on its government customers first and foremost. In doing so, the company got its start with the Small Business Innovation Research and Small Business Technology Transfer programs (SBIR/STTR) in the late 80s, just a few years after it was founded in 1985, and used those programs as a launching pad to commercialize these sought-after, albeit riskier technologies.

"To commercialize SBIR technologies, you often have to show potential customers that the core technology they need has already been paid for through the SBIR program, and yet it will work for them as well," explains Ron Shroder, CEO and President of FTI. "That removes the risk for our customers, and often they would be willing to invest additional resources to make it more robust. Once a few customers lined up with investments, FTI soon had a full product suite of these decision aids."

This type of commercialization success was demonstrated as the Army G3/G5/G7 put a Phase III in place to leverage prior investment in logistics and planning by the USAF and the Navy funded the first of several task orders.

That product suite includes decision-making aids such as FTI's Integrated Cost Estimation, or ICE™, which simplifies the process of building system cost estimates and determining the return on investment for a program or technology. ICE™ integrates a whole suite of budget and cost assessment tools. Another FTI product, known as NormNet®, enables the DOD

to implement condition-based maintenance and other contemporary system maintenance strategies. NormNet® assists operational decision makers by modeling normal system operations and predicting future performance without requiring physical models or lists of failure modes. FTI's ELAPS® - Extensible Load-Adaptive Processing System software suite is designed to increase the efficiency of high volume data processing by addressing the core requirements of automation, scalability, and extensibility.

FTI was recently awarded a Phase III contract by the Air Force to support enterprise assessment and resource investment planning and related sustainment and logistics decision processes. As part of this contract, FTI will identify and apply decision support methods and tools resulting from an earlier Phase I and Phase II award to develop capabilities for enterprise level analyses. These enhanced analytical capabilities will identify and quantify cost-effective improvements, verify operational performance, and guide materiel investment strategies through long-term materiel war gaming.

For its Navy customers, FTI is currently creating an integrated Navy Fuel Efficiency Conservation Dashboard and Optimization System Prototype. The prototype will support a structured comparison of investments in technology, the documentation of the business case, and return on investment of specific technologies. This prototype will be used within the fleet in support of the Navy's energy efforts, and specifically support energy usage, efficiency, and readiness initiatives. FTI is also characterizing the benefits of the ELAPS® data management architecture to support the Navy's energy conservation data as part of several Missile Defense Agency (MDA) pilot efforts. This core MDA technology has already been installed at one operational MDA site and has been demonstrated to allow operators to format satellite data in minutes as opposed to hours. Based on the success of these pilot efforts, MDA is planning to award a Phase III SBIR in Sep 2015 to enable multiple services to continue to mature and apply this core data management architecture.

Although the company was founded in California, Shroder and many of FTI's analysts and developers with rich aviation backgrounds sit near Wright Patterson Air Force Base (WPAFB) in Ohio, where he feels the company has a majority of its initial SBIR roots.

"Ohio is the birthplace of aviation and it has always been an incredibly powerful research and development (R&D) community with people who truly understand the culture of aviation here," adds Shroder. "There are amazing government researchers here who see the real benefit of these technologies. We are fortunate to be able to interact with them face to face. We start with their passion, develop solutions, and then adapt them to other organizations because their problems aren't unique to WPAFB – they impact DOD organizations throughout the country."

Another key to the company's success – hiring the right mix of bright, young developers, engineers, and mathematicians (many with Ph.D.'s), as well as retired military personnel. As an employee-owned company, each staff member has a vested interest in helping the company to flourish.

A recipient of the 2015 Tibbetts Award, Shroder and FTI proudly accepted the honor at the White House this spring.

"FTI's goal continues to be the use of these decision aid technologies to empower our clients through data driven decisions," said Shroder after the ceremony. "Our passion aligns with the Congressional intent of the SBIR Program, which is to commercialize these technologies through the use of the sole source Phase III strategies. We hope that our customers' recent awarding of over one hundred million dollars of Phase III contracts is just the beginning of an aggressive growth period for our company and its employee owners."



Ron Shroder, CEO and President of FTI, accepts the 2015 Tibbetts Award from the U.S. Small Business Administration Office.