

Forging the Government-Commercial Market Connection



MRIGlobal Program Manager Mary Pierce wears many hats. One of them is serving as a conduit between DOD-based government agencies that benefit from MRIGlobal's system integrator role.

Federal government defense agencies benefit from the strategic products developed and used in commercial markets. Unfortunately, government has few gateways to these products.

The Department of Defense doesn't have the resources to widely scout under-the-radar entrepreneurial firms' technologies. Even if they did, commercial firms with promising technology products often are too small to meet stringent government regulations or to fund implementation of required government systems. The gap leaves defense agencies with limited access to the newest and most advanced products and technologies that could help them protect U.S. soldiers.



Mary Pierce, program manager at MRIGlobal, helps bridge the divide. For defense clients, Pierce manages complex CBRNE (chemical, biological, radiological, nuclear, explosives) wearable sensor research programs that focus on chemical weapons biodefense. Part of her job is identifying when a third-party technology could help achieve a defense agency's research goals. Pierce then finds a commercial partner whose product best fits the program need.

With significant in-house expertise, MRIGlobal handles many government programs solo. When a project calls for specific technical capabilities the company doesn't have, however, or when an existing third-party product can create efficiencies for clients, Pierce and other MRIGlobal scientists can team up with commercial entities.

MRIGlobal has a long history of work with DOD-based agencies. It already uses the administrative systems mandated for doing business with government. The company therefore can serve as a conduit to the commercial marketplace, contracting directly with commercial firms and managing their work on the government's behalf. Often, government agencies and these commercial companies would never have access to each other apart from MRIGlobal's system integrator role.

The structure also provides scientific integrity for government because MRIGlobal has no incentive for picking one commercial product or firm over another. The objective selection can be made solely on whose product or technology will best help accomplish the client's project goals.

Sourcing Commercial Partners for DOD-based Programs

To stay abreast of technologies in multiple scientific fields, MRIGlobal has built a large, interdisciplinary team of technical professionals who are subject matter experts in software development, rapid prototyping and state of the art chemical and biological detection technologies.

In addition to maintaining her own awareness of new and existing commercial technologies, Pierce can access the knowledge of these internal sources to find relevant third-party tools or products when client programs call for it. She sometimes contracts with commercial partners MRIGlobal already knows. She and her team also may do deeper due diligence through in-person site visits, conference attendance, research into previous government-funded programs and review of related journal articles where academics have published their state-of-the-art work. Through this systematic process, she can identify and build new relationships that strengthen MRIGlobal's ability to meet client objectives.

This careful examination of options, Pierce said, is one reason MRIGlobal has had such longevity in its government relationships: The company's scientists know where to find and access the technology solutions client programs need. The process may involve repurposing non-military-related technologies for military purposes or identifying multiple technologies that, used together, achieve a single desired result."

Using Commercial Technology in Biodefense



In practice, Pierce points to a current MRIGlobal program that underscores how government benefits from the company's role as a connector to the commercial marketplace.

The customer for this program wants to develop a wireless health monitoring system for use by warfighters—specifically, a wearable sensor a military team could use if it encountered problems in a remote area that lacked good communications capabilities. The sensor would monitor the soldiers' heart rates, blood oxygen levels, respiration and core body temperatures, and a complementary wearable communications device would securely transmit that data and the team's location by cellular or satellite to a monitoring command station. Commanders then could determine whether team members were safe or injured and know where to send help if needed.

MRIGlobal could have developed the technology on its own, but Pierce believed she could create efficiencies and lower costs for the client by finding a commercial partner who already offered monitoring technology for the four desired biological markers.

While health monitoring is a huge industry where technology is quickly evolving, few available devices could measure all four vital parameters – and most existing products weren't very reliable, Pierce said. Through

methodical research, however, MRIGlobal identified a commercial partner that could provide sensor technology for all four of the parameters. Pierce contracted with the commercial company to get the proprietary algorithms for the information its sensors were gathering.

Pierce proposed that the communications module, which MRIGlobal is creating, be designed and built to be sensor agnostic. With sensor technology changing rapidly, a benefit of that approach is that the communications device can collect data from virtually any sensor. Over time, as the commercial sensor market evolves, MRIGlobal could identify and use new commercial sensors that offer increasingly better results. The benefit to the client, Pierce said, is that MRIGlobal isn't committed long-term to a single sensor, but to finding the best performer to meet the program objectives.

Creating Client Wins

MRIGlobal speaks both the government and the technical languages required to connect government to commercial solutions and create a win for both sides, Pierce said.

In the case of the wireless health monitoring system program, the commercial sensor provider with whom Pierce contracted is a British firm. In the health monitoring realm, she said, technology has advanced a little more quickly in Europe than it has in the United States.

MRIGlobal's system integrator role gave the U.S. Department of Defense access to technology it needed that wasn't yet available through an American company. For the commercial partner, whose products have been deployed for military uses in Europe, the MRIGlobal program was its first opportunity to expand into the States.

It's difficult for government to gain access to small, or even larger, commercial technologies, Pierce said, because government doesn't have a mechanism to do so or a deep bench of scientific subject matter experts. An approved contractor like MRIGlobal, with years of experience serving and adhering to stringent DOD requirements, can be the ideal conduit to the best commercial technologies for the problems government needs to solve.

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About MRIGlobal

Celebrating its 75th year of business, MRIGlobal addresses some of the world's greatest threats and challenges. Founded in 1944 as an independent, non-profit organization, we perform contract research for government, industry, and academia. Our customized solutions in national security and defense and health include research and development capabilities in clinical research support, infectious disease and biological threat agent detection, global biological engagement, *in vitro* diagnostics, and laboratory management and operations.