



Congressman Murtha

## IEE Highlights in 2004

“One person, one idea, one company”—the IEE works on a highly individualized basis to support the growth of small businesses. In 2004, the IEE:

- Counseled 853 clients for a total of 7,691 hours of consulting
- Assisted 66 clients in starting or purchasing a business
- Assisted clients in securing loans or investments for a total of \$21.6 million
- Provided 4,938 hours of training to 1,605 people through 58 programs
- Fielded 6,345 phone inquiries for information of concern to small business
- Fielded 824 web inquiries for information of concern to small business

Another example of this kind of RFID technology is already being employed in hospitals that use “smart cabinets,” the product of an IEE client, Mobile Aspects. Smart cabinets can read a hospital employee’s identification badge and note the type of equipment or drug removed from the cabinet, the amount, and the date and time.

Companies sometimes come to the IEE for advice in one area and are enriched in other areas as well. Dielectric Solutions, based in Butler, Pennsylvania, is a good example. “They have engaged with us at two levels,” says Dugan. “The company initially came to us through the young CEO’s program sponsored by the Entrepreneurial Fellows Center. They wanted to improve their management skills as they were very technically oriented. As we got to know them, we started keeping an eye out for marketing opportunities that might fit their product.” The IEE helped Dielectric Solutions obtain a new round of venture financing, vamped up its board of directors, and helped to refine their business model. The company is now actively producing products for the First Responders program (see sidebar).

Dugan anticipates two key initiatives for the Center for Entrepreneurial Excellence in 2005. “With the additional resources that the NCFRT grant provides us, as well as the number of companies that have been through our business management programs, the IEE is now working with more than 200 companies in Western Pennsylvania. As we see marketing opportunities arise, we can match them to the companies that we know.”

The second initiative of the center is to tie more Katz MBA student projects around the IEE’s contact companies. Many small, high-tech companies have a good handle on their technology, but need help identifying the best, most sustainable market, or developing a business plan that provides an effective point of entry for the product. Using teams of MBA students is an obvious win-win for everyone. “When students can apply the skill sets learned in the classroom to real life examples, they make better employees,” Dugan notes.

The Institute for Entrepreneurial Excellence is in its first, five-million dollar phase of a \$15 million capital campaign, seeking a named endowment. Dugan is excited about the prospects of developing high-technology in Western Pennsylvania. Noting that the country’s rate of commercial innovation is falling behind that of other industrialized countries, she concludes: “As a country we make significant investments in research—we now need to turn that research into products and technologies that will benefit the region, the country and, indeed, all of us.”

For more information on any of the programs of the Institute for Innovative Excellence, visit <http://iee.katz.edu>, phone (412) 648-1544 or inquire at [ieeinfo@katz.pitt.edu](mailto:ieeinfo@katz.pitt.edu).

## Dielectric Solutions—Innovative Western PA Technology Addressing First Responder Needs

In business since 2000, Dielectric Solutions has risen to the challenge of the IEE's First Responder Grant by providing high-tech, woven fiberglass solutions that possess improved strength, thermal and electrical properties. Based in Butler, Pennsylvania, Dielectric Solutions began working with the IEE two years ago on various projects to leverage their patented technology into new markets and to address the issues of capacity and growth. The Department of Defense represents an attractive market for the company.

"Our products are often invisible—buried in high-tech composite parts in aircraft or electronic circuit boards, for example engine mountings or construction applications," says Todd Kadar, President, "But there are many applications for them." For the First Responder challenge, Dielectric Solutions is providing a high-strength and light-weight fiberglass fabric that provides protection to military transport vehicles such as tanks and Humvees. "We've replaced taken a specialty glass composition that used to be difficult and expensive to produce, and instead we can now give the military a more cost-effective solution that improves personnel protection and takes weight out of the vehicle in order to save fuel."

Dielectric Solutions also produces specialty fiberglass materials to support high-speed digital systems that enable users to move large quantities of data easily, as well as special Teflon-coated products that can be used in radar applications. The company is in

production mode with all three of these products.

"Our base technology that was developed and patented here gives us wide latitude in developing and designing new materials," Kadar says. "We can take a problem that we see in industry and apply design flexibility to it, often creating a new product to improve performance or reduce total cost." He notes that the company's sales have doubled every year for the past four years, while employment has also risen.

Kadar has been very pleased with the support that the IEE has given the company. "The IEE at the Katz Graduate School has a very good network of contacts and knowledge within the Department of Defense and the military," says Kadar. "For a small company like us to develop that knowledge base is prohibitively time-consuming. The IEE steps in and helps us think about how to introduce a new technology. They can also assist in preparing proposals and grant applications as well as setting up cooperative research agreements with military research facilities.

"The research facilities and the abilities that Pitt has are a big advantage to any company, especially to a startup like us in a technical field. I would encourage other companies to use their resources rather than to try to do everything on their own. Pitt has a lot of things to add to the expansion of an industry segment in Western Pennsylvania. The university has enabled us to reach out and leverage our abilities." ●

L to R:  
Katz Professor  
Dennis Slevin, Marlin  
Mickle of the School  
of Engineering (back  
to the camera),  
IEE Executive  
Director Ann Dugan,  
Congressman  
Murtha, and  
Chancellor Mark  
Nordenberg

