

Ceramics Corridor®

Ceramics, Glass & Advanced Materials Newsletter

First Quarter 2002



Annual Highlight & Impact Study Reveals a Year of Continued Success

Despite the multiple traumas of a weakening economy and the events of 9/11, the Ceramics Corridor Innovation Centers' business incubation facilities at Alfred and Painted Post, NY continued to turn out positive numbers last year. The final tallies for the year are included in the "Highlight & Impact Study" for 2001, just released by parent organization Alfred Technology Resources, Inc.

At the end of last year, the tenants of the two facilities reported an employee total of 116, a net gain of 36 jobs from one year earlier. Ceramics Corridor Innovation Centers' graduate firms, up through three years post-graduation, reported an employee total of 1,177.

"While that net gain of 36 jobs might seem relatively modest, it comes against a backdrop of events beyond our control," according to Ceramics Corridor Innovation Centers' executive director, Jon M. Wilder. "I believe it clearly indicates that we were able to maintain our momentum through some difficult times, and we are optimistic that with a strengthening economy we will indeed continue to move forward in our mission to create technology-related jobs in the Ceramics Corridor region."

Altogether, there are currently 19 incubating businesses in the program. In the decade since the program was founded, a total of 11 firms have "graduated," moving on to their own facilities. The two facilities stood at a combined 96% occupancy at the end of last year, and haven't been below 88% occupancy for a reporting period in the last four years.

"We've proven that business incubation works," according to Wilder. "Our 94% success rate is seven points higher than the national average as determined by the National Business Incubation Association."

Also for the year, incubating businesses reported wages paid to employees of \$3.6 million. Graduates, through the three-year post-graduation period, paid out \$38 million in wages. In the sales category, incubating businesses reported domestic sales in excess of \$2.6 million and international sales of \$133,000. Graduated businesses reported sales totals of \$400 million and \$500,000 respectively. To date, three graduate firms built or bought nearly 600,000 square feet of space in New York State, carrying a total capital investment of about \$225 million. Easily the most impressive figure to emerge from the "Highlight & Impact" study is direct return on investment. From an initial investment of \$10 million, a total of 2,470 direct jobs have been created by the program, or \$4,049 per job. To date, the total economic reward enjoyed from that investment has been \$527 million, or \$213,360 per job. That factors out to nearly a 5,200% return on investment.

For the year ahead, "we will be focusing on letting CEOs of major technology-based companies know about the benefits of growing their ideas in the business incubation setting," Wilder concludes. "We will also be focusing on strengthening the already-solid academic ties we can offer, as well as the various business-government-institutional networking opportunities that set us apart. We are very optimistic."

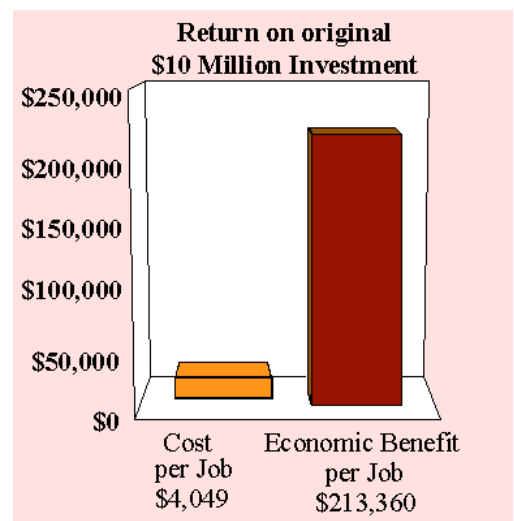
(Editor's note: Copies of the "2001 Highlight & Impact Study" can be obtained at our website: www.ceramicscorridor.org or by e-mail request to corridor@ceramicscorridor.org.)

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The Ceramics Corridor® runs along I-86 in the Western and Central Southern Tier of New York State



Back to Business

The Ceramics Corridor Innovation Centers program was born a decade ago on the heels of a major economic recession. The goal at the time was to create 1,000 jobs by the year 2000—a figure that was more than doubled, and we have been adding to the total since (see this issue's cover story). In the process, we have proven that business incubation can, indeed, be a highly successful process of growing start-up businesses, as the program's 94% success rate clearly indicates.



Jon M. Wilder

Business incubation is about growing both jobs and commercially successful applications—turning ideas into viable products and services. It is important that we emphasize to the CEOs of major high-tech companies that there is no better place to develop their research and development and start-up projects than in the dedicated facilities of proven business incubators. It is an environment in which an idea or concept can be carefully nurtured, utilizing all of the resources of the parent company, but “off by itself,” as it were, to remain focused on the ultimate goal of bringing it to market.

We will continue to demonstrate the importance of academic links for the incubation process. We will similarly continue to foster strategic partnerships between business, academic and public sector entities throughout the Ceramics Corridor region of New York's Southern Tier. No innovative idea is ever brought to commercial success in a vacuum, and this talent-rich region has all of the resources needed to turn concepts into economic reality.

We are very optimistic for the future of the ceramics and advanced materials industry in New York State and look forward to Ceramics Corridor Innovation Centers' continuing role in the region's economy. If we can help you in any way, to bring your ideas to fruition, please call us.

Jon Wilder

Executive Director

Company Profiles...

The Ceramics Corridor Innovation Centers welcome Nanoset to the Alfred incubation facility. Dr. Xingwu Wang, professor of electrical engineering at Alfred University, along with several Rochester, NY-based partners, has founded Nanoset. The fledgling company has also signed an agreement with the New York State Center for Advanced Ceramic Technology (CACT) under which it “maintain and utilize a plasma fabrication facility at the CACT's Technology Transfer Center at the Ceramics Corridor Innovation Centers' Alfred facility,” according to Dr. Wang. “There are eight U.S. patents issued regarding plasma processes, related to the facility.”

The Technology Transfer Center itself, of course, is the result of the combined efforts of Dr. Wang and CACT assistant

directors Dr. William Walker, Jr. and Dr. Licio Pennisi.

Specifically, the TTC is targeting businesses in New York State interested in ceramics research. A CACT lab facility, the TTC works with small businesses and start-ups in the areas of design and product testing. In effect, it operates as a small production line in which larger, pilot-scale projects can be produced and tested.

Few lab prototypes make it to mass production without a lot of “bugs” on the way, and the TTC itself is the place where those problems can be solved. It provides businesses operating in the Ceramics Corridor Innovation Centers with yet another valuable tool in the process of taking technology-based ideas to the next level.

And as far as Nanoset, “this collaboration will be beneficial to the growth of business and the New York State economy,” Dr. Wang concludes.



Dr. Xingwu Wang

The tenant ranks at the Ceramics Corridor Innovation Centers' Painted Post facility have been increased with the addition of

LightPath[®]
..... TECHNOLOGIES[™]

LightPath Technologies, a New Mexico based company that conducts R&D on a variety of optical matrix switching fabrics.

In its operations, LightPath uses its proprietary automated manufacturing processes, which include laser fusion and laser polishing, to provide optical components and subassemblies to telecom product manufacturers. The company's flexible automated processes are said to increase volume production while cutting costs and enhancing reliability.

LightPath makes an array of products that are used in telecommunications networks, as well as in traditional optics.

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For additional copies of this newsletter, or to add your company to the mailing list, please call (607) 587-9444, or e-mail us at corridor@ceramicscorridor.org

Got News?

Have you hired any new people or moved recently? Have you launched a new product, received any patents or won any awards? If so, you're in the news! We're already working on our next issue and we want to hear from you! News about your business should be sent to Laura Quick, Managing Editor; Ceramics Corridor@ Newsletter, 200 N. Main St., Alfred, NY 14802, or e-mail corridor@ceramicscorridor.org.



Refractron Technologies Acquires XYLON Ceramic Materials

Refractron Technologies Corporation of Newark, New York has acquired XYLON Ceramic Materials, Inc., currently located in the Ceramics Corridor Innovation Center at Alfred, New York. The acquisition expands Refractron's technology and product bases in both controlled porosity and densely structured ceramics.

XYLON will operate as a division of Refractron and production will relocate to a new 17,000 square-foot addition to Refractron's 60,000 square-foot headquarters facility in Newark, New York. A research and development center will continue to be maintained at the Ceramics Corridor Innovation Center, near the New York State College of Ceramics, in Alfred. The R&D Center will be under the direction Dr. Nicholas Burlingame, who established XYLON with industry professional Paul R. Johnson, MS.

Refractron Chairman Robert J. Stanton said, "We are both pleased and proud of this acquisition, and of the expanded material process and technical capabilities that XYLON brings to our company. Combined with Refractron's proven manufacturing, engineering and marketing capabilities, we can now provide our customers with more expertise and have the capacity to scale up production for a wider range of challenging applications."

Refractron Technologies is the worldwide leader in the manufacture of advanced porous ceramics for such customers as ITT Sanitaire, Outokumpu Mintec, Parker-Hannifin and Pall Corporation. The company works closely with customers to develop innovative solutions for new applications requiring uniformity and controlled porosity. Products include membrane and monolithic filter tubes and plates; diffuser discs, domes and tubes; and absorbent filter/drier cores for refrigerants.

XYLON Ceramic Materials is a leader in the development of advanced zirconia and alumina ceramic products. Its research and development has led the company into new areas of structural ceramics and ceramic alloy powder production. Development of aerospace applications and contracts for R&D in the biomedical industry have placed XYLON into rapid-growth markets for high-tech ceramics.

XYLON produces zirconia and alumina based products for joint implantation of hips, knees and shoulders. The company is the first U.S. producer of USFDA registered zirconia femoral heads for the biomedical orthopedic implant industry. XYLON products are also used for gas turbine applications, petrochemical pumps and material handling equipment, and ultra-high purity ceramic alloy powders.

For additional information, contact Thomas Kinton, Refractron Technologies Corp., 5750 Stuart Ave., Newark, NY 14513. Telephone 315-331- 6222. Fax 315-331-7254. e-mail info@refractron.com.

What are You Doing with your Web Site?

It seemed like a good idea...you had to have your own Web site, because everyone does, these days. So, now you have a Web site...what are you doing with it? Does it just exist, providing a brief glimpse of what your company does? Or do you use it aggressively to market your company, sell your products and get the word out about yourself, including news and press releases? If your Web site or any portion of it says something like, "last updated August 20, 1999," then your efforts to get it up and running are going to waste.

"The World Wide Web is a window to global commerce, a place where anyone who is connected can 'see' you and buy your products and services," explains Walt Surdak, chief operating officer of Petra Technology Group, an IT solutions company based in Corning, NY.

"But having a Web presence isn't enough, no matter how dazzling it appears.

"On the Web, content is king," Surdak continues. It could be as simple as making sure that your site is up-to-date, providing valuable information to all who would come calling. Or it could be as aggressive as grabbing your visitor by the lapels, figuratively, and showing them that you mean business.

Once you've attracted a visitor, "you must make your points succinctly," Surdak explains.

"Grab their attention on the first page and draw them closer to a sale as they get deeper into your Web site. How do you do that? You start with marketing. Marketing is the core competency that ties together the business plan and tools to make the sale."

To get the maximum impact from your Web site, it's a matter of "the graphic designer translating the marketer's vision into a delightful visual experience, and the technologist using programming, site design, databases, search engines and other tools to make it work.

"The bottom line," Surdak concludes, "is that if you want a good return for your Web investment, do it right."

(Editor's note: Walt Surdak can be reached at wsurdak@petragroup.com.)



Business Notes...

• The *First International Workshop on Glass and the Photonics Revolution*, which will be held in late May, 2002 in Bad Soden, Germany, promises to point the way to the future of advanced uses of glass, according to its sponsors. The one-and-a-half-day event will bring together glass users and makers and photonics engineers from all over the world for the first time. The event, which is being held simultaneous to the annual meeting of the German Society of Glass Technology, is being sponsored by a partnership of the National Science Foundation Industry/University Center for Glass Research and the New York State Center of Advanced Ceramic Technology, which are both part of the New York State college of Ceramics at Alfred, and the German Glass Industry Association. The program will consist of a series of presentations from industry, government organizations and academia. An edited version of the workshop proceedings will be available after the event.

• The *U.S. Small Business Administration* has opened a new Web site aimed at providing small companies with greater access to legal and regulatory information related to their businesses. The address is www.businesslaw.gov. According to an SBA spokesperson, the aim is "to help reduce the burden of complying with laws and regulations. The site provides interagency and intergovernmental information, arranged by subject, and it will serve as the foundation for a central business compliance resource for entrepreneurs.

• The *Federal and State Technology Partnership*, or FAST, has awarded the *New York State Office of Science, Technology and Academic Research* (NYSTAR) a \$125,000 Federal grant to help small businesses commercialize start-up technologies. FAST is administered by the U.S. Small Business Administration. "This grant will play a major role in enabling us to continue our mission to help high-technology companies in the state," according to Dr. Russell Bessette, executive director of NYSTAR. "It will help the state enhance its efforts to assist small businesses in acquiring funding through the Federal Small Business Innovation Research [SBIR] program."

People in the News...

• *Dr. Licio Pennisi and Dr. William Walker* have both been promoted at the New York State Center for Advanced Ceramic Technology (CACT), Alfred. Both assume newly created positions. Pennisi is now the assistant director of extension services for CACT, where he will be responsible for day-to-day sponsored programs, including providing technical support to ceramics and glass industry clients, both in New York State and outside of the state. Walker, meanwhile, is the new assistant director of CACT research and outcomes measurements. Specifically, he will help companies in those activities and coordinate CACT activities.

• *Dr. Walter Schulze and Dr. Steven Pilgrim* of CACT are members of the international advisory committee of Ferroelectrics 2002. The International Joint Conference on the Applications of Ferroelectrics will be held May 28-June 1 in Nara, Japan.

• *Dr. Donald B. Keck*, one of three Corning Incorporated scientists credited with the invention of optical fiber, has won the ninth annual Photonics Spectra's Distinction in Photonics award. The award, which was presented at the Photonics West Conference in San Jose, CA, earlier this year, recognizes people who are universally known for their contributions to the advancement of photonics. Dr. Keck's career has spanned 34 years.



Dr. Licio Pennisi



Dr. William Walker



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