



Optical Scientist Bob Breault connects his vision with others around the world to shine the light on Tucson's optics industry.

Someone from another country may call him with a question and 10 minutes later he may hook that person up with a resource in Bedford, Mass. Breault said it's not that he knows every Tom, Dick and Harry in optics.

Breault said he visited fellow scientists in 10 countries last year. It's those kinds of connections that can help him respond to a question or problem in 10 minutes rather than weeks or months.

"I make many powerful links between them and us," said Breault, founder and president of Breault Research Organization, known as BRO. Located at 6400 E. Grant Road, Suite 350, BRO creates optical software products, performs optical system analyses and serves clients in 35 countries. The company has about 50 employees.

"He certainly has gone around the world and started a lot of clusters and has helped the Tucson optics industry become better known," said James Wyant, dean of what is now the UA College of Optical Sciences.

## Driving Tucson Optics

Written by Administrator

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The Arizona Optics Industry Association, which Breault chairs, has more than 300 companies and organizations in Tucson, Phoenix and other cities in the state. Of the 300 member companies, about 160 are located in southern Arizona.

The AOIA model has inspired the creation of more than three dozen optics clusters in the United States and abroad. Breault has worked with clusters in 35 countries and assisted in their start-up.

A few years ago, the St. Asaph Business Park in Denbighshire, North Wales, created an optical research center at Breault's urging and named a suite of rooms for optics start-ups the Arizona Suite.

"They want to be connected to Tucson," Breault said. "The cluster networking on a global scale is an important asset to the community."

Financially, the statewide optics industry grew to \$2.3 billion in sales in 2006, compared to \$236 million sales in 1996. Over those same 10 years, employment grew from 2,300 to over 25,000, according to a recent report from the UA Office of Economic and Policy Analysis.

Breault said these numbers are markers of a healthy, growing knowledge-based industry. Canon is one of the most recent optics companies to establish research and development operations in Tucson at the UA Science and Technology Park.

Breault, who earned his doctoral degree in optical sciences from The University of Arizona, was the first graduate student of the UA program to start a spin-off company. Since 1979, the UA optical sciences program has spawned about 50 companies and attracted 309 companies to Arizona.

Many of the firms do business globally. BRO did not start out that way but today, 70 percent of BRO's business, is global.

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“Going global is something that small businesses don’t naturally do because of intimidation by federal regulations,” Breault said.

The global business grew after BRO ventured into the commercial world of optics in 1988. Breault realized the future of optics was with the private sector rather than with the federal government. “I was one of the first to move into the commercial domain,” he said. By 1992, BRO was heavily engaged in the global commercial sector. In addition, his work with clusters internationally provided exposure to his company.

Breault wants to help the local economy and further capitalize on the strength of the optics cluster by helping others tap into global markets that can use optics created locally and in Arizona. “We have solutions that will sell now,” in other countries, he said.

Breault said the Arizona cluster can play a role in teaching existing or new optics firms how to create their own international opportunities.

Arizona has a tremendous amount of technology embedded in the state’s three major universities, he said. With the support of the governor, mayors and economic development officials, he would like to start up 100 new firms with five employees each. Each firm would have the goal of earning \$1 million in its first three years, with 7 percent of the revenues returning to the state coffers.

His plan would create 500 new high-tech jobs in the state, he said, and optics companies could generate an additional \$21 million for the state.

Breault said he’s seen his idea work in Korea, where 297 small optics companies generated \$1 billion after only three years in business.

The people he recruits to work with him on his proposal, he said, will have to recognize that it will take hard work. “It’s not just a wish,” he said. “It’s going to take direction, planning and driving force.”

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-By Sheila Storm

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