

## SMALL BUSINESS

# Growth Tools

| ENTREPRENEUR |

## Seeing the light

Headwall Photonics Inc.



David Bannon, left, COO of Headwall Photonics, and President and CEO Larry Barstow appear alongside some of the company's optical technology used for hyperspectral imaging in UAVs (unmanned aerial vehicles).

BY MARC BERNSAU / BUSINESS JOURNAL

### With buyout of Agilent division, tech startup sees potential for optical technology beyond telecom

BY SEAN MCFADDEN  
JOURNAL STAFF

**F**ITCHBURG — For **Larry Barstow** and **David Bannon**, launching their own optical-technology business in a soft telecommunications market was akin to reaching the toughest point of a mountain climb — and finding the strength to not fall off the precipice.

Hence, the name of their 2-year-old company, **Headwall Photonics Inc.**

That strength, they say, came from their belief in a risky but seemingly ready-made opportunity: the management buyout of a division of Palo Alto, Calif.-based Agilent Technologies Inc., where Barstow had served as general manager since 2000.

The holographic grating operation division's forte was developing original diffraction gratings (which remains Headwall's core expertise) — optical components that

### FAST FACTS

**Larry Barstow and David Bannon** led the management buyout of Agilent Technologies' spectral module and holographic diffraction grating business in May 2003, resulting in the formation of Headwall Photonics.

**Headwall Photonics** designs and manufactures optical products that manage wavelengths for customers in the life sciences, test and measurement and telecommunications industries.

# HEADWALL: Seeing the light

separate white light into individual wavelengths spatially separated — for use in optical test and measurement products. Basically, says Barstow, they were in the business of managing wavelengths of light, which had significant applications in the emerging telecom industry.

When the market dried up several years later, recalls Barstow, “I was trying to convince Agilent that there were many more optical applications (such as medical/life science and the federal sector) that they weren’t pursuing, but there really wasn’t a lot of perception of that.”

So, Barstow enlisted social acquaintance and fellow rock-climber Bannon, who had 17 years of sales and marketing experience at tech startups, to become his co-founder and chief operating officer.

Together, Barstow, 47, and Bannon, 48, have managed to make impressive headway in a relatively short period. Last year, Fitchburg-based Headwall shipped out 10,000 products for a client base that is 60 percent domestic and 40 percent international. They’ve grown their employee ranks from 15 at the time of the buyout to 25 currently. And, with an average 30 percent annual growth for the past two years, Headwall projects revenue of \$7 million for 2005.

With a focus on OEM customers, Headwall’s integrated imaging spectrometers and spectral engines have been used to study the compounds in a pharmaceutical trial, military reconnaissance efforts and to conduct space research for NASA.

The partners admit it was initially a struggle to get potential investors on the same wavelength as them: “Some of the people we talked with were overwhelmed with all the different market focuses, thinking that was de-focusing and counterproductive to a business model,” says Barstow. Bannon, however, saw only positives: a ready base of customers, an established 20,000-square-foot facility in Fitchburg and considerable intellectual property (about seven patents, as well as trade secrets of its actual manufacturing methodology).

The partners made a substantial upfront financial contribution themselves (they decline to specify exactly how much). “To be able to take money and invest it here, when we needed money for college education for our kids, I think strongly indicated that we believed this is a good play for us and that we are going to be able to recoup this investment,” says Barstow.

A short time later, they lined a quartet of investor types: Agilent, Applied Spectral Partners of Palm Beach, Fla., and two angel investors. The buyout was completed in May 2003, consisting of funding and asset list value in excess of \$8 million and including all manufacturing assets, technology rights and supplier agreements.

**Tom Mikes**, chairman of Applied Spectral Partners, recalls, “There was certainly some risk. The nice thing is that they had a good customer base — several million dollars of business that was ongoing.”

Barstow and Bannon say a key strategy is to expand Headwall’s focus beyond mere components into design and integration services.

According to **Eugene Arthurs**, executive director of Bellingham, Wash.-based SPIE, the **International Society for Optical Engineering**, “Headwall is well positioned in a number of areas—for example, hyperspectral imaging and pathogen detection and identification.”

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