

Business Monday

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A CHALLENGE MET

Naphtali Rishe's technology made him the winner of the Herald's annual Business Plan Challenge. Three other entrepreneurial ventures also fared well in the contest.

By GREGG FIELDS

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This year's winners of the Miami Herald Business Plan Challenge take the wonders of technology one step further -- and create products that could benefit real people in their everyday lives.

In the process, they prove something: The boom of the 1990s may be over, but South Florida is still a great breeding ground for the entrepreneurial spirit.

The Nasdaq may crumble. The tech world may stumble. Those trends have seen their day.

But dreams to succeed are here to stay.

Whether it's sophisticated treatments for debilitating medical conditions or a simple but easier way to protect your windows in a hurricane, the Business Monday-sponsored contest found that yesterday's Internet dreams have given way to something far more substantial.

The strike-it-rich mentality of the late 1990s has given way to thoughtful long-term strategizing.

Companies whose business plan was designed to help others explore virtual reality -- whatever that ever was -- have been replaced with those whose tangible goods provide a demonstrable benefit.

And the stereotype of a billionaire wunderkind has been supplanted this year by highly-skilled researchers and inventors who spent years, and careers, in laboratories or academia.

The following is a look at the winner, and three runners-up, as selected by a panel of business experts from around South Florida.



Naphtali Rishe has the go-ahead from FIU to develop technologies into commercial ventures.

No. 1: TerraFly Inc.

Naphtali Rische hopes to give TerraFly its wings.

Rische, a full professor in computer science at Florida International University, has brought together intellectual property, innumerable databases and lots of computer power to develop TerraFly.

Whether it's satellite imagery or aerial photography, the company's geographic information system allows users to "fly" over virtually the entire country.

How good is this system? It allows you to find a specific street address, locate the intersection of geographic coordinates or literally look at an aerial view of a real estate site.

"You're on a virtual helicopter, and you can read the street signs," Rische says. That smooth flight above the landscape is a technological advantage that competitors don't have, he says.

FIU long ago granted Rische the right to develop technologies into commercial ventures. "The university has to maintain research leadership, and projects like this bring it prestige," he said.

TerraFly "started about five years ago, but obtained critical mass Oct. 26, 2001," says Rische, a native of Russia who lived in Israel before migrating here. That's when TerraFly unveiled its website, <http://www.terrafly.com/>, which significantly amplified its ability to reach customers.

Right now the site is free to the public, although services like customized data packages and software packages will cost you. The company is anticipating revenue of \$1.4 million the first year. It hopes to reach profitability in the third year, when it anticipates that revenue will hit \$18.49 million.

TerraFly is expected to draw two types of customers: retail, which are average consumers who drop in for just a visit, and wholesale, which include county governments, urban planners, educational institutions and environmental groups.

Wholesale customers would provide the bulk of revenue. "They can pay by check or by large amount of cash," he says with a laugh.

"We believe every county in the country can access us for data," says Gary Tie-Shue, director of business development. ``One day this will replace traditional line maps. And you don't have to fold it."

It's a plan that clearly impressed the Herald's judges. "An innovative, potentially high value-added application of existing technologies," said Barry University economist Steve Morrell. ``The fly-over features could provide a distinct competitive advantage. The plan is well-conceived."

Helping matters, there is relatively limited competition -- although one of them happens to be a giant company called Microsoft. Another is Globexplorer.com (Tie-Shue says TerraFly's system has the largest database of aerial photography for sale on-line. The virtual flight also provides a unique way of viewing the product.)

The geographic information-systems market, Rische adds, has sales of \$6.9 billion annually and demand is growing. So Rische is looking for investors.

"With \$6 million we could set up a very good marketing campaign," he says. His hope is that sales could grow to \$18 million

within three years. Since most of the system's costs were in development, profit margins would be a lofty 52 percent.

FIU would benefit, too, through a royalty payment program. "The University of Florida has Gatorade," he says, referring to the sports drink developed there. ``We call Terraflay our Gatorade."

No. 2:

PRECISION MEDICAL DEVICES

Four years ago, Peter Sayet took a wrong turn at a Publix and realized he was in an aisle full of diapers -- for adults.

"It made me wonder about how embarrassing it would be for an adult to put a diaper on," he said.

That night, Sayet, who has long been involved on the business end of the medical products industry, started doing research.

What he found shocked him: Urinary incontinence, or the inability to control urine flow, afflicts an estimated 500 million people worldwide. "I also found there was no fix," he said. And diapers are the most common treatment.

That led to the Precision Medical Device: an implant that substitutes as a urethra sphincter muscle for the patient. Translation: It allows the patient to control the problem.

"We got it down to close to the size of a pacemaker, and we believe we will get it smaller," says Sayet.

Sayet enlisted some big guns to help him develop the product. Lloyd Sutherland, a former lead engineer for pharmaceutical giant Pfizer, handled technical aspects. Dr. Victor Politano, the noted urologist who formerly headed the University of Miami's urology department, headed research.

The device was patented last November. And successful trials on animals should pave the way for human testing next year, Sayet says. The hope is that the first products may be available in Europe and Latin America by late 2003, although he acknowledges that getting approval in the United States could take considerably longer.

The business plan for Precision Medical Devices first calls for communicating with the market. Sayet estimates the market could run to 100 million units. He isn't sure how many will buy them, but says the market is growing as baby boomers age.

He says the company could be profitable with sales of as few as 300 units a year, at \$7,000 each.

Secondly, Precision Medical is looking for investment money. The development costs were paid for on "a shoestring" budget of \$600,000. The company is hoping to raise \$2.5 million to insure completion of the human trials.

The judges found the company's technical and business expertise an impressive combination. "It builds on the strength of South Florida's presently most successful and most promising sector," of biomedical industries, said Jorge Salazar-Carillo, an economics professor at FIU. ``The depth of the promoters and their reputations is impressive."

No. 3 (Tie): INTEGENE

Integene's application to the business plan challenge says a mouthful.

``The goal of Integene Inc. is to be the leading provider of gene- and cell-based systems for the treatment of

atherosclerosis including critical limb ischemia and coronary artery disease."

Integene, developed by Keith Webster, a Ph.D. at the University of Miami's Department of Molecular and Cellular Pharmacology, is an effort to help those whose arteries become hopelessly clogged and die off, commonly referred to as hardening of the arteries.

It's largely a problem of the aged, although diabetics and others are also at risk.

"We're starting with the disease in the leg," says Webster, who grew up near Newcastle in England before earning his degrees at the University of York. `` It affects 100,000 people in the United States each year, and half get amputations."

Other treatments for forms of the disease include bypass surgery and angioplasty.

Webster, who began his research at Stanford before moving to UM, looks at how blood cells grow in low-oxygen environments, such as clogged arteries. "One way to fix it is to get other arteries to grow around it," bringing in new blood flow.

Existing technology allows that, but "the problem is, you need to be able to turn it on and off," he says. Too many blood vessels in the eyes, for instance, can lead to blindness for diabetics.

That's where Integene (Intelligent Gene) comes in. The company's research has developed a technique that limits the growth of new arteries. It allows doctors to restrict production to only diseased tissues. The technology has been published in several leading biotechnology journals.

To be sure, there are many other companies looking to develop a similar product. But Webster says that none of these companies have Integene's patented gene therapy that can switch off arterial growth.

What impressed Business Plan Challenge judge Jonathan Cole was "the huge market potential" of Integene's research and its `` world class scientists."

But as is often the case with biotechnology, odds are the company will "either hit it big or recoup zero," Cole said.

Webster acknowledges that he has a major sales job ahead of him -- with investors. With patents in hand, he is seeking \$5 million to create the company and take Integene to clinical trials. But venture capital firms "are running from it," after previous biotech booms went bust, he says. `` At the moment, it's hard to get people interested in gene therapy."

No. 3 (Tie):

SHIELD TECHNOLOGY GROUP

Engineer Cameron Gunn hasn't quit his day job but the Canada native, who grew up in a small town near Edmonton, may be able to one day if Shield Technology takes off.

Shield Technology is an attempt to take the drudgery out of what is a stressful, difficult job for millions of Americans, particularly in South Florida.

Putting up hurricane shutters.

They're heavy. Hard to store. Expensive.

And of course, you use them when you fear one of nature's most powerful forces is about to strike your property.

Gunn developed a product that solved at least some of the existing headaches for homeowners. "It's very easily used," he says. "You put it on right before hurricane season and leave it up."

ted his product, which is made of a high-strength fabric similar to what is used for bulletproof vests. It is stretched across a hurricane, then rolled back up once the storm has passed.

Gunn's engineering background allowed him to do the research that demonstrates the material will withstand the pressure.

Now, Gunn is looking for money to take the concept to the next level -- to have it tested by a state-approved laboratory, then certified by the state as an acceptable hurricane protection product.

The cost of the system is roughly comparable to what aluminum window panels run, he says, about \$1,200 for the average home.

"It's a precise and detailed business plan with a very necessary product, for South Florida especially," said Business Plan Challenge judge Marielena Villamil, of Washington Economics Group.

Gunn's targeted market has annual sales of about \$350 million. He acknowledges he has many competitors, which means marketing through the clutter could prove to be quite a challenge for him and his vice president of sales, Leticia Delatorre.

Currently, he's seeking \$120,000 to start up the company. Even with a relatively small market share -- he's projecting about 2 percent within three years of launching -- Shield Technology could prove profitable, he says. He's hoping revenue of \$425,000 is possible this year, for instance, providing income of \$41,500. By 2004 he'd like to hit sales of \$4.9 million, with earnings of \$1.6 million.

