

Leveraging Patent Donation to Grow Technology-Based Businesses

By Jeremy Bond

Can a soil fumigant technology spur economic development? If an entrepreneur is able to commercialize it, then the answer is quite possibly yes.

Two big Delaware companies are donating their unused patents – including one for a soil fumigant technology – to the Delaware Economic Development Office (DEDO). It's part of the state's new Intellectual Property Business Creation Program, and officials say it's the first time a state economic development agency has entered the business of handing out patents to entrepreneurs with the goal of commercialization and new business formation in mind.

DuPont is providing the vast majority of the patents – 250 – while the chemical company Hercules Inc. is donating an additional five.

One of Hercules' patents is particularly promising as an environmentally friendly alternative to fumigating methyl bromide, which is linked to depletion of the ozone layer. A new approach to fumigation is desperately needed because the U.S. could lose up to \$1.5 billion in agricultural revenue upon the phasing out of methyl bromide.

Now, all that's needed is the right entrepreneur to turn the technology into a marketable product – and hopefully a high-growth business.

How it works

Launched in October of 2006, the primary purpose of the IP Business Creation Program is to create technology-based jobs in Delaware, said Nikki Boone, a spokeswoman with DEDO. So the patents are available exclusively to any business or entrepreneur based in Delaware, planning to move or expand to Delaware, or otherwise develop the technology in the state.

Every state has companies or universities with intellectual property that is not being used. The message of Delaware's economic development office to agencies in other states is, "Look, there's something in your backyard," said Judy McKinney-Cherry, the office's director.

States with high concentrations of engineers, in particular, can benefit from this type of program, McKinney-Cherry said. Delaware's high concentration originated largely from DuPont, which has been around for more than 200 years.

It's virtually free for an entrepreneur to obtain one of the donated patents. The state pays the fees to maintain the patent, McKinney-Cherry said. State officials are betting that as companies grow, the program will pay for itself.

To secure a patent, potential licensees submit an application that is then reviewed by both business and technical experts to assess the soundness of the business plan and to determine if the licensee has the expertise to bring the technology to market.

The state has little to lose. Even if an entrepreneur starts a business that goes kaput, the collateral – the intellectual property – remains in the state, McKinney-Cherry said.

DEDO has received just 105 of the patents so far. The agreement with DuPont and Hercules requires them to donate the patents in stages so the state has time to evaluate them. The department hasn't announced any agreements yet with anyone who has agreed to take a patent, but is negotiating with at least two potential partners, McKinney-Cherry said.

Fortunately, the state is already set up to provide assistance to entrepreneurs who secure one of the patents. Delaware's Technology-Based Seed Fund provides equity financing for startup expenses, working capital and lab and office space. The state's recently launched Emerging Technology Center provides early-stage entrepreneurs and companies with a network of business experts and investors.

Determining the potential for commercialization

State economic development agencies typically aren't staffed with experts on intellectual property, so that expertise has to be contracted out, McKinney-Cherry said. Delaware works with the Wisconsin-based Center for Advanced Technology and Innovation (CATI) to evaluate the patented technologies to determine which are closest to commercialization.

CATI has leveraged patent donations from large companies such as Kraft Foods, S.C. Johnson and Boeing, resulting in the launch of several new smaller companies and licensing arrangements with existing companies.

The key to CATI's assessment of the patents is to consider both the technology piece and the business piece, said Matt Wagner, director of CATI.

"The science of it can be really exciting," he said. "But if there is no market, then it really doesn't matter."

With the soil fumigant technology, for example, CATI focuses on what is happening within the industry the patent falls under, how many other patents cite the patent (a helpful indicator of its value within the industry), and the market size and anticipated market share from the technology, Wagner said.

Of the patents CATI has examined so far, 27 offer immediate commercial opportunities, Wagner said. Twelve are in the “investigational” stage (at least five years from commercialization). Most of the patents (70) fall somewhere in between – the “developable” stage, between 25 and 60 months away from commercialization.

“Commercializable” technologies have both a proof of performance and a prototype product, according to CATI. The technology still needs some final testing, package and production development, but otherwise it’s ready for the marketplace.

Developable technologies are pre-commercializable and may be appropriate for a partnership between academia and industry, or may be offered as a complementary technology to an existing business, according to CATI. These may be appropriate for seeking federal research and development funds through sources such as the Small Business Innovation Research program.

Investigational technologies are generally best suited to further development by academic researchers who might seek private or government funds to support the work, or by larger private industry. Such a technology might be an engineering concept or a promising molecular structure.

Patent donation takes a twist

Patent donation through a state economic development agency is new, but patent donation itself has been around for some time. In the 1980s and 1990s, companies would provide patents to research organizations and get tax write-offs in return.

Federal legislation passed in 2004 largely eliminated the tax benefit corporations received from patent donations, so donations have largely dried up. CATI has adapted by pursuing joint ventures, in which a company donates a patent for an entrepreneur or company to license the product and bring it to the marketplace. The company that donated the patent receives royalty fees from any revenues.

The National Institute for Strategic Technology Acquisition and Commercialization (NISTAC), based at Kansas State University, also has had to adapt in the post-2004 environment. Without the tax incentive, “our phones don’t ring,” said Bob Reader, the institute’s vice president of licensing acquired technologies.

NISTAC has spent the last three years commercializing what it spent five years acquiring. The organization is now refocusing on deals that don’t necessarily involve patent acquisition, Reader said.

So how is it that large companies end up with so many unused patents? Only about 5 percent of patents have an active product in the marketplace tied to them, Reader said. Companies retain patents for strategic reasons, such as the possibility of future product development, or perhaps to protect a company’s position in a certain scientific development.

Often, companies don't commercialize a patent because the technology is not connected to the growth of their business, Wagner said. Scientists do a lot of freelancing in research and development departments.

Patents have traditionally been donated to universities and nonprofit organizations. Universities would develop the technologies, then license them to businesses and receive revenues from royalties. For example, NISTAC negotiated the Eaton Corp.'s donation of a portfolio of patented technologies, valued at approximately \$17 million, for development at Kansas State University and later for commercial licensing. Eaton, based in Cleveland, manufactures products for the industrial, automotive, construction, commercial, aerospace and semiconductor markets.

Back to Delaware

The Delaware program provides a more direct path to commercialization, as there is no university in the middle. One unintended consequence of publicity surrounding the program's launch is that people are calling from around the country claiming to have a patent they want to give to the state so that someone would commercialize it, McKinney-Cherry said. But DEDO wants to keep the focus on developing business within the state.

One challenge Delaware faces in its efforts to encourage entrepreneurship is its low unemployment rate. There is little incentive to leave the safety, comfort and consistency of a corporate structure to strike out on one's own without the guarantee of financial gain, McKinney-Cherry noted.

But Delaware has a good basis to build on. The 2007 State New Economy Index, released by the Kauffman Foundation and the Information Technology and Innovation Foundation, ranked the small state high in several key indicators. Delaware ranks first in industry investment in research and development, fourth for scientists and engineers as a percentage of the workforce, and fifth for patents issued to companies and individuals.

And if any of those scientists or engineers is interested in working with a new method for soil fumigation, we know where they can get started.

In addition to soil fumigation, the donated patents are in the areas of biotechnology; analytical methods and instrument technology; catalytic technology and chemical conversion processes; electronic composition, manufacturing and processes; fabrication and construction; industrial enzyme technology; medical treatment and separation processes; fiber composition, processes, manufacturing and equipment; optics/light technology; solid, liquid and gas separation; specialty materials and composition; and surface coatings and finishes. To view information on the patents, visit http://dedo.delaware.gov/business/patent_portfolio/index.shtml.

A Call for Nominations

IEDC's bylaws provide that all members in good standing shall be informed of the nominations process and invited to submit applications or nominations for service on IEDC's Board of Directors. Nominations must be received by the Nominating Committee **no later than July 19, 2007**. If you have any questions regarding nominations, please contact Corie Ziegler at cziegler@iedconline.org or (202) 942-9476.

- [Download the nomination form](#) (32 Kb MS Word doc)

Share Your Expertise

Northern Maine's Aroostook Partnership for Progress would like to recruit a local hospital as an investor in the Partnership. The concern is why one nonprofit should financially support another nonprofit.

Does your local hospital financially support your nonprofit EDO, and if so, how do they justify it? For comments and suggestions, please contact Walter J. Elish, President and CEO, Aroostook Partnership for Progress, welish@APPme.org.

Federal Update

Congress Agrees to Budget Resolution

On May 17, the House and Senate adopted a \$2.9 trillion budget resolution for fiscal year 2008, \$21 billion more than the White House proposed. President Bush has threatened to veto any bill that surpasses his budget. However, the budget resolution does not need approval from the president; it simply provides Congress with a roadmap for revenue and spending.

Senate Version of Small Business Loan Program Changes Approved

The Senate Small Business and Entrepreneurship Committee approved legislation last week by unanimous vote that would expand loan programs for small business owners. Maximum loans under the Small Business Administration's 7(a) program would be increased from \$2 million to \$3 million. In addition to many other changes, the program would be tailored to

create a simple and flexible loan product to encourage lending in rural areas. According to CQ Today, the legislation also calls for an SBA office of minority business development

Committee Chairman John Kerry (D-Mass.) anticipates the legislation will be taken up soon on the Senate floor. Similar legislation passed in the House on April 25.

Economic Development News

Analysis & Impacts

[How do you rebuild a town from scratch?](#)

The Herald-Tribune, May 13

Greensburg, Kansas, was literally flattened by a tornado earlier this month. Many towns – floodstruck or tumbled by tornadoes or hurricanes – have wrestled with the question of how to put themselves back together. Do you restore the town as it was, or reinvent the community?

[“Infrastructure 2007: A Global Perspective”](#)

Urban Land Institute and Ernst & Young (pdf, 69 pp.)

This report is based on research and forums that brought together experts from the fields of development, design, finance, engineering and the public sector. It finds that the U.S.’s relatively low investment in virtually all aspects of mobility-related infrastructure – roads and bridges, airports, public transit, and railway systems – is an “emerging crisis” that will compromise the ability of the nation’s cities to compete globally.

[Why manufacturers collaborate on innovation](#)

Center for European Economic Research, 2007 (pdf, 37 pp.)

This study, “Motives for Co-operation: Evidence from the Canadian Survey of Innovation,” analyzes the motives of manufacturing firms’ decisions to collaborate in order to develop new and improved products. Using data from the Canadian Survey of Innovation 2005, the study finds that the factors influencing the decision to cooperate in order to access external knowledge are very similar to those influencing cost-sharing motives. It also finds that public funding leads firms to co-operate in order to access external knowledge and R&D.

[“Restoring Prosperity: The State Role in Revitalizing America’s Older Industrial Cities”](#)

The Brookings Institution, May 2007

With over 16 million people and nearly 8.6 million jobs, America’s older industrial cities remain a vital – if undervalued – part of the economy, particularly in states where they are heavily concentrated, such as Ohio and Pennsylvania. They also have a range of other

physical, economic, and cultural assets that, if fully leveraged, can serve as a platform for their renewal. This report aims to mobilize governors and legislative leaders, as well as local constituencies, behind an asset-oriented agenda for reinvigorating the market in the nation's older industrial cities.

Business Retention & Expansion

[Surviving the textile industry decline](#)

The Republican Herald, May 6

Schuylkill County, Pa.'s 11 textile/apparel factories (~1,600 jobs) survived the textile industry's decline over the last 15 years by rethinking their operations, finding niche markets, and improving technology. This article describes how some individual firms survived the changes brought by NAFTA.

[How Colorado Springs keeps its companies](#)

The Gazette, May 6

Since Colorado Springs business and civic leaders have little in the way of incentives to offer, they are making retention of existing employers a priority. The local economic development group spends a good deal of its time fending off advances from other communities to lure its employers away, in addition to serving essentially as "business-community concierges."

Entrepreneurship & Small Business Development

[Virtual help for small business owners](#)

The Columbus Dispatch, May 6

Ohio State University, the U.S. Small Business Administration and the Ohio Department of Development have teamed to offer inexpensive, online courses to small business owners in an initiative called "SmallBizU." Course content ranges from basic business skills such as accounting and creating financial projections to crafting a business plan, buying a business and hiring and managing employees. SmallBizU is among the first online academies of its kind.

[Farm system works for entrepreneurs, too](#)

The New York Times, April 26 (registration required)

A professor and a business consultant have built a model based on baseball's modern farm system for identifying, recruiting and developing entrepreneurs in underserved and overlooked regions of the country. The Entrepreneurial League System works on the theory that a structured group support system is effective in helping small businesses get off the ground.

Finance

[Future destinations of venture capitalist investment](#)

Forbes, May 5

The venture capital sector is bouncing back from its post-bubble blues, as blockbuster deals give venture investors new confidence in their ability to cash out. In addition, new sectors like “clean tech” (environmentally friendly technologies) and trends like the aging of populations in the developed world are creating promising investment opportunities. Challenges, however, include the fact that there are many misses among the hits, and more venture capitalists are fighting over a smaller pool of money and deals.

[When your entrepreneurs become your venture capitalists](#)

Allentown Morning Call, May 6

A Lehigh Valley, Pa. entrepreneur and a partner have launched an early stage venture capital fund. The co-founders of Originate Ventures expect to turn the \$25 million initial fund into \$250 million in 10 years. They’ve attracted about 80 investors, mostly through personal contacts, and jump-started the fundraising efforts with a combined \$4 million of their own money.

[Toledo and Northwest Ohio look to attract more venture capital](#)

Toledo Free Press, May 4

The Ohio-Midwest Fund is the \$51 million regional investment program of the Ohio Public Employees Retirement System, invested in eight private equity funds. The fund has invested \$40 million in Ohio companies, impacting 1,375 jobs in the state. However, none of that capital was invested in Toledo, and the region wants to change that.

Incentives

[Alabama wins steel plant](#)

Mobile Press Register, May 11

Mobile County, Alabama, will be the home of new \$3.7 billion ThyssenKrupp steel plant. The plant is projected to open in 2010 and employ up to 2,700 workers. Both Alabama and Louisiana offered incentive packages thought to be valued in excess of \$400 million.

[\\$300 million package lures Sematech research operations to N.Y. state](#)

Albany Times-Union, May 10

Sematech, the Austin-based consortium for computer chip development, promised to locate a key part of its operations in Albany, N.Y., in return for a \$300 million incentive package.

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The company would establish its headquarters in Albany, adding about 450 high-paying research and development jobs to an existing work force of 250.

Neighborhood, Community & Downtown Development

[Austin groups worry that mixed-use ordinance will lead to gentrification](#)

The Austin American-Statesman, May 15 (registration required)

A coalition of neighborhood and community groups is asking the city for a moratorium on implementing a “vertical mixed-use ordinance” in East Austin. The groups say the ordinance – which promotes projects with stores and restaurants on the ground floor and offices or apartments above – will accelerate gentrification and the loss of affordable housing and locally owned businesses. Neighborhood groups must decide by June 4 whether they want to opt into or out of vertical mixed-use incentives.

[Swimming pool for sale: \\$2](#)

BBC News, May 15

In an effort to enable communities to improve services and build stronger communities, the British government may soon sell unused sites, such as old hospitals, empty pubs and disused police stations to community groups for as little as £1 (~\$1.98). A £30 million (~\$59.25 million) fund will support 20 pilot projects across the nation.

Planning, Smart Growth & Transportation

[“Bus Rapid Transit” groups out-lobbied by rail advocates](#)

The Philadelphia Inquirer, May 15

Bus rapid transit (BRT) buses whiz along dedicated roadways, pausing briefly at stations where passengers quickly get on and off without having to pause and feed the driver's coin box. Advocates of BRT say the U.S. is wasting billions of dollars to build glitzy urban rail systems when people can travel more cheaply and with less environmental impact by bus, because, as one advocate contends, “there's a lot more money to be made building rail systems than there is building BRT systems.”

[Fairfax, Va. looks at making big-box stores community-friendly](#)

The Washington Post, May 18

Usually hulking one-story buildings with sprawling parking lots and no pedestrians in sight, big-box stores are now under examination in Fairfax County, Va. Officials are looking at making big-box stores build up instead of out, fit better into existing neighborhoods and leave less of a blemish on the environment.

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[Mass. state law helps turn factory into housing](#)

The Boston Globe, May 3

In the hope of spurring the reuse of old factory buildings, the city of Haverhill, Mass., last year adopted a smart growth overlay district encompassing a significant part of the downtown. The district's creation was spurred by a three-year-old state law that encourages the creation of such zones, where streamlined permitting is intended to attract dense residential or mixed-use developments near transit stations, and other suitable places. Now, a nonprofit developer is poised to convert a vacant old factory building to a mix of 57 apartments and three commercial spaces.

[Parks increase tax revenues](#)

Chico Enterprise-Record, May 12

Not only is "quality of life" among the top location selection criteria for businesses, but a city's parks and recreation facilities also increase the value of the homes, according to a California expert. Then there are benefits such as sports tourism: A week-long national girls softball tournament will bring \$6 to \$8 million economic impact to the City of Roseville, Calif. (pop. 105,000).

Real Estate

[Eminent domain to build marine cargo terminal?](#)

The News Tribune, May 16

The Port of Tacoma wants the land of 22 property owners on the east side of the Blair Waterway for future marine cargo terminals, and may use eminent domain to acquire the parcels. The number of displaced businesses could well be higher than 22, since some of the properties are leased to multiple companies. The acquisitions total 130 acres and are worth an estimated \$90 million to \$100 million.

Recovering from Hurricane Katrina

[Civic engagement boosts neighborhood turnaround](#)

The York Dispatch, May 15

Lakeview, a 7,000-home middle income enclave in New Orleans, has emerged as a success story in the reconstruction of the city, due to the efforts of entrepreneurs and a strong civic organization that existed long before the storm. The community is so organized it has compiled its own data on rebuilding, finding in a February survey that 67 percent of Lakeview's lots were in some stage of transformation.

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Rural Development

[“Voices of the People: Strategies for Expanding Entrepreneurship in the Rural South”](#)

Southern Rural Development Center, 2007 (pdf, pp 16)

This report is the result of nine “listening sessions” held around the South, and provides recommendations and case studies on creating an entrepreneur-friendly climate in the region. The “must do” items include cutting red tape for new companies, providing entrepreneurship training at the K-12 and postsecondary levels, and redirecting funds that traditionally support big companies towards smaller entrepreneurs.

[How rural America can remain competitive with low-income countries](#)

Federal Reserve Bank of Chicago, June 2007

While many parts of rural America have benefited from globalization, concerns remain about the shift of U.S. jobs overseas. This article notes that there are many areas in which rural communities can be competitive if they make the necessary investments in infrastructure and human resource development. It also contends that rural leaders need to recognize that existing agricultural commodity policy does little to create the necessary enabling environment for successful rural development.

Technology-Led Economic Development

[iDelta: Information technology in the Delta, Vol. 1 \(pdf, 144 pp.\), Vol. 2 \(pdf, 25 pp.\)](#)

Delta Regional Authority & Southern Growth Policies Board

These reports look at a comprehensive plan to build information technology access and utilization in the 240-county area covered by the Delta Regional Authority. It examines 18 indicators of information technology usage and economic factors affected by information technology. To increase utilization, it recommends the creation of an iDelta Center to act as an organizing entity for information technology initiatives in the region.

[Pfizer sets up new biotech incubator in San Diego](#)

The Paramus Post, May 15

Testing a new incubator concept, Pfizer is committing 26,600 square feet of empty lab, office and meeting space – as well as \$10 million a year for five years – to jump-start new biotechnology companies. The incubator is set up as a separate entity from the drug company, but Pfizer is looking for tenants whose innovations may one day help the company strategically. Tenants will have to agree to an upfront equity-share agreement with Pfizer.

[The University of Florida moves to the major league of tech startups](#)

Business Week, May 21

The University of Florida failed to create a single startup from faculty discoveries a decade ago, but by the 2004-05 school year, its spin-off tally was up to 13. MIT and the University of California system still outdid Florida, but the university is on the rise as the result of a change in strategy: It's treating intellectual property like merchandise and then marketing the products to targeted customers.

Tourism

[Should rails be converted to trails, or back to train use?](#)

The Sacramento Bee, May 15 (registration required)

A group of train fans is proposing turning a long-abandoned, 140-year-old rail line in El Dorado County, Calif., into an excursion train ride. A tourist train, they say, could knit foothills communities, draw visitors and money to the region, and bring some history to life. Some county residents say the roughly 40-mile railroad right-of-way should be developed mainly as a recreation corridor for hikers, bikers, runners and horseback riders, however.

["Innovation in Tourism: How to Create a Tourism Learning Area"](#)

The European Commission

Over the past few years, the European Commission has gathered information on how to improve the performance of the small business, tourism and education sectors, bearing in mind the overall objective of developing a modern knowledge-based economy by the year 2010. The Tourism learning-areas handbook is one result of that work, bringing together the latest approaches being used to stimulate the links between learning, innovation, competitiveness and sustainability into a practical 'how to' manual.

Member Update

Fred Mondragon has been appointed Secretary of the New Mexico Economic Development Department. Mondragon was formerly Albuquerque's Economic Development Program Director.

Branson (Mo.) Economic Development Director **Michael Rankin** will resign from the city May 31 to work as a private consultant.

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Nils Urman has been hired to head the **City of Nogales (Ariz.)** Community and Economic Development Department. He was formerly the Director of the Santa Cruz County (Ariz.) Commerce and Economic Development Department.

Joseph Seaman has been named the first President and Chief Executive Officer of the **Lafayette-West Lafayette Development Corp. (Ind.)**. He formerly served as Lafayette's president of JPMorgan Chase Bank.

RFP/Q

The Community Redevelopment Agency of the City of Clearwater is requesting a qualified development team to submit a response to RFP/Q 23-07 for the Purchase and Development of the Cleveland Street and Prospect Lake Park Site. This prime 4-acre parcel, one block east of Clearwater's downtown core, is available for the development of residential infill with commercial components. To view the RFP/Q in its entirety please visit www.myclclearwater.com/Downtown. Submittals are due by June 29, 2007.

Job Center

May 21

- Business Development Manager (Gilbert, AZ)
- Director of Business Development (Florence, SC)
- Director of Economic Development (Fuquay-Varina, NC)
- Director of Recruitment (Martinsville, VA)
- Executive Director (Hutto, TX)
- Economic Development Professional (Montrose, IA)
- Economic Development Recruiter (Portales, NM)
- Executive Director (Sweetwater, TX)
- President and CEO (Angleton, TX)
- SBDC Program Director (Long Beach, CA)
- Vice President of Economic Development (Will County, IL)

May 7

- Business Services Manager (Abilene, TX)
- Director of Business Development (Carlsbad, NM)
- Director of Economic Development (San Antonio, TX)
- Economic Development Director (Harlingen, TX)
- Economic Development Director (Lynchburg, VA)

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- Executive Director (Idaho Falls, ID)
- President/CEO (Portland, OR)
- President (Redding, CA)
- President (Wyandotte County Kansas)
- Professional Development/Education Associate (Washington, DC)
- Senior Vice President (Topeka, KS)
- Vice President of Business Development (Batavia, NY)
- Vice President, Business Development (Ft. Wayne, IN)

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