BEST PRACTICES IN FOREIGN DIRECT INVESTMENT
AND EXPORTING BASED ON REGIONAL INDUSTRY CLUSTERS

VIRGINIA-ISRAEL BIOSCIENCES COMMERCIALIZATION CENTER

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Summary

The Virginia-Israel Biosciences Commercialization Center is an international soft landings initiative in Richmond, Virginia. The center draws on the local bioscience cluster that is anchored by the Virginia BioTechnology Research Park. The park, located in downtown Richmond next to the Virginia Commonwealth University (VCU) Medical Center, serves a range of companies including Israeli soft landings firms.

Initial connections to the Israeli scientific and entrepreneurship community, along with strong support from the Virginia Governor’s Office, helped the center get under way. The center’s long-term dedication to the Israeli relationship has strengthened the connection and served as a source for qualified referrals. In addition, the center’s ability to bring together expertise and expansion capital, along with space and proximity to research and clinical trials at the university and connections to the local Jewish community, has been an important factor in the center’s success.

This practice illustrates the ability of a city to attract small foreign enterprises through targeting a particular industry and a particular country. As such, the practice is applicable to any city that can sustain this type of focus. Although many economic developers think of foreign direct investment in terms of large multinational branch facilities, this case illustrates the benefits of concentrating on small foreign startups. Maintaining long-term relationships with the Israeli scientific and entrepreneurship community and leveraging partnerships with state government and the local university are key lessons of this practice.

Background

Richmond is the capital of Virginia and the state’s third largest metropolitan statistical area (MSA) after the Washington, D.C.-Baltimore-Northern Virginia MSA and the Virginia Beach-Norfolk-Newport News MSA. Richmond proper – as of 2010 – comprised more than 200,000 inhabitants, while the broader Richmond MSA encompassed 1.26 million people. The latter figure represents a 5.4 percent increase over 2000 levels. The region has a diversified economic base, with 21.5 percent of employment in educational/health care/social services; 11.7 percent in professional, scientific, and management services; 11.6 percent in retail trade; 10.3 percent in financial, insurance, and real estate; and 8 percent in manufacturing. The unemployment rate for the Richmond MSA in 2009 and 2010 was 7.7 percent and 7.8 percent, below the national average of 9.3 percent and 9.6 percent, respectively.

Biotechnology is an important emerging cluster for Virginia. In 2008, Virginia had 981 establishments (where an establishment includes both branch facilities and single-facility enterprises) in the bioscience subsector, which

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1 This case study is based on an interview conducted with the president and CEO of the Virginia BioTechnology Research Park on March 12, 2012.
employed 20,257 workers. Sixty percent of its bioscience establishments and half of its bioscience workers were in the research/testing/medical laboratory segment; another 34 percent of bioscience establishments and 18 percent of bioscience workers were in medical devices and equipment manufacturing. During fiscal year 2008, academic research and development expenditures in the bioscience subsector were nearly $550 million, representing a 23 percent increase over fiscal year 2004 levels. Forty-five percent of these expenditures came from the National Institutes of Health (NIH). Virginia ranked 11th in total number of health-related degrees in academic year 2008 and 19th in venture capital investments in the field from calendar years 2004-2008. Richmond considers biosciences—including therapeutic drugs and treatments, medical devices, and health care services—to be one of its five target industries, along with finance and insurance, creative and knowledge-based companies, advanced manufacturing, and transportation and logistics.

Virginia has had a longtime interest in creating a biotechnology industry cluster, as evidenced by the incorporation in 1992 of the Virginia BioTechnology Research Park, a collaborative effort of the city of Richmond, state government, and Virginia Commonwealth University (VCU). Founded in 1838, VCU has one of the oldest medical colleges in the United States. VCU ranks 78th among the top 125 universities with medical schools in terms of R&D expenditures. The Virginia BioTechnology Research Partnership Authority was created in 1993 to implement finance and development functions for the park. Envisioned as the locus of a high-tech bioscience cluster adjoining the university in downtown Richmond, the park opened in 1995 with the launch of the life-sciences incubator building. The first multi-tenant laboratory facility opened in 1996 as BioTech One. Two VCU research centers and three private-sector companies were early BioTech One tenants. As of 2012, the park has more than 60 tenants employing more than 2,200 bioscience workers.

Around this same time, the Governor’s Office and the Virginia Department of Commerce created the Virginia-Israel Advisory Board. The board is composed of 29 members, and the secretary of Commerce and Trade and secretary of Education. The mission of the advisory board “is to serve as the bridge for Israeli companies who want to establish and/or expand their business in the United States and locate in Virginia.” The initial advisory board executive director held dual U.S.-Israeli citizenship. Under the auspices of the advisory board, the Virginia governor and secretary of Commerce and Trade traveled to Israel in the mid-1990s to promote economic development, cultural, and educational relationships.

While in a Washington, D.C. meeting with an Israeli medical device company, the advisory board executive director met with the former Virginia Commerce and Trade secretary who had become the president and CEO of the park in 1997, and engaged in a discussion. The Israeli company was seeking to raise capital and commercialize its product in the United States. The Virginia Commerce Department secretary offered assistance. He reviewed the firm’s business plan and strategy, connected it with city officials, and gave the firm a tour of the Virginia BioTechnology Research Park. This meeting formed the basis of the Virginia-Israel Biosciences Commercialization Center.

The Virginia-Israel Biosciences Commercialization Center initially was organized as a unit of the research park.

5 National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2009.
7 Code of Virginia, Chapter 46, Virginia-Israel Advisory Board.
However, organizers found that chartering the center as a separate C corporation would be more appropriate than, for example, situating it as part of the 501c3-structured incubator. The C corporation designation would enable center specialists to perform services and receive compensation, and facilitate entering into contracts with Israeli companies. Moreover, Israel had a good network of incubators and early-stage investment, but lacked funding for later-stage investments and exporting activity. This organizational structure would be beneficial to these Israeli startups’ need for capital to enter and expand into the U.S. market. Funding for regulatory approval, scale-up, distribution, and establishment of a sales force are among the areas that are important for U.S. market entry and that require an infusion of capital.

The center currently is a wholly owned subsidiary of the for-profit Virginia Life Sciences Investments LLC (VLSI). VLSI was established in 2009 as a $14 million equity fund to support capital needs of later-stage biotechnology companies. The Virginia Biosciences Commercialization Center, which includes the Virginia-Israeli activities, was set up in 2007 and acquired by VLSI in 2009.

The Virginia-Israeli Biosciences Commercialization Center received initial funding from the U.S.-Israel Binational Industrial Research and Development (BIRD) Foundation. The BIRD Foundation awarded the Virginia BioTechnology Research Park and Israeli startup R&D Supports Ltd. $800,000 over two years to develop orthopedic devices for military, home care, emergency, and sports medicine markets. In all, the BIRD Foundation has provided $2 million in support for assistance with Israeli startup entry into the U.S. market. The annual budget for the Virginia-Israeli center is approximately $1 million.

The Practice in Operation

VLSI and the center are managed by a board of directors. The center operates in approximately 6,000 square feet of space in the research park. Two types of operations occur at this facility: (1) outreach and trade missions, and (2) entrepreneurship assistance.

Outreach and Trade Missions

The center initially engaged in outreach through trade missions to Israel and visits with startups. In 2007 for example, the Gateway America initiative involved travel to Israel to meet with a subset of the 900 Israeli startups in the life-sciences field, focusing on firms that were at an advanced stage of development. Services available to the selected startups included conference attendance in Richmond, business and marketing assistance, connection with hospitals and distributors, clinical-trial access, and financial capital.

These various engagements enabled the center to establish long-term relationships with several referral sources. The center today engages with certain research and entrepreneurship organizations, including Israeli incubators, sources of venture capital, and the Office of the Chief Scientist with the BIRD Foundation. Presently, the contacts that the center has created enable it to rely on referrals rather than further extensive outreach.

Entrepreneurship Assistance

Center operations initially followed an incubator model. However, a traditional incubator model requires relocation of the client company founder. The center incorporated a modification suitable to international soft landings in that the founder is not expected to relocate to Richmond, but rather can remain in Israel while still advancing the goal of entering U.S. markets. This traditional incubator model has thus been altered so that the center can focus on companies meriting investment.

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The decision as to which companies merit investment is based on the following criteria: (1) product in biomedical/biosciences industry (e.g., medical devices, diagnostics, therapeutics, medical software); (2) a demonstration model indicating commercialization or near commercialization readiness; (3) product pipeline; (4) globally well-protected intellectual property; (5) industry-experienced management; (6) prioritization of expansion into the U.S. market with few or no existing sales in the United States; (7) investors dedicated to entry into the U.S. market; and (8) interest in co-investment with a U.S. partner organization.\textsuperscript{11}

The investment committee within the board of directors reviews the extent to which an entrepreneurial opportunity fits the criteria, then conducts an evaluation. The investment committee is composed of a professional staff headed by experienced people in life-science diagnostics and devices. These professionals have managed and built companies, including non-U.S.-based companies.

Results to Date

The center is currently working with nine companies:\textsuperscript{12}

- BioCancell Therapeutics Inc.: targeted biopharmaceutical company for cancer therapy
- BioProtect Ltd.: biodegradable balloon therapy to enhance treatment of prostate cancer; spinoff OrthoSpace provides balloon therapy for muscular tears in the shoulder
- Cupron Inc.: antimicrobial technology for wound treatment
- Faneuil Medical: device to encourage spinal movement
- Gardia Medical: catheter-based delivery system for cardiovascular intervention
- ImmunArray Ltd.: diagnostic system for detecting organ rejection and autoimmune disease
- NeatStitch Ltd.: automatic stitching of entry points in laproscopic surgeries
- Virtual Ports Ltd.: endoscopic surgery tools
- Xenolith Medical: stone filters in kidney-related procedures

Many of these companies are sales or U.S. headquarters. Investment in the Israeli companies totaled $18 million as of 2011.\textsuperscript{13} In December of 2009, one center graduate, EnzySurge, received FDA approval for its continuous therapeutic-solution-streaming for wound care.\textsuperscript{14}

The center’s success led to creation of the Clean Tech Gateway U.S.A. Program in 2011. This program hosted five companies from Israel that year. The program aims to facilitate entry into the U.S. market for small clean-tech startup companies.\textsuperscript{15}

The center has also been successful in involving Richmond’s Jewish business community. Several local Jewish business executives and retirees have served as investors in the fund. In addition, the community has extended itself to the Israeli executives in terms of local religious and cultural connections.

\textsuperscript{12} http://vbcc-inc.com/the-vbcc-companies/ (accessed March 19, 2012)
\textsuperscript{13} Israel’s Business Arena, January 10, 2011.
\textsuperscript{15} “Israeli Clean Technology Companies Coming to Hanover County.” States News Service. March 24, 2011.
Lessons Learned

The Virginia-Israel Biosciences Commercialization Center has leveraged interest by Israeli startups in entering the U.S. market with efforts to advance the local bioscience cluster to create a source of economic development opportunity. The center uses interpersonal connections established with a network of startup service providers and scientists in Israel, along with staff expertise in bioscience startups, to attract these companies to the Richmond area. These connections were formed on a strong foundation of involvement from the Governor’s Office in the creation of the Virginia-Israel Advisory Board and participation in initial trade missions to Israel.

It is not uncommon in foreign direct investment initiatives for an international relationship to become repositioned as circumstances change. This case shows the benefits of a long-term association with the Israeli biosciences community, one that has paid off in providing qualified referrals to the Virginia bioscience subsector.

The center has learned that the traditional incubator model cannot be strictly adhered to in implementing an international soft landings approach. Although there are similarities to domestic incubators, this approach has some major differences – particularly noteworthy is a founder’s strong likelihood of remaining in Israel, even as he or she desires to establish an operation in the United States.

Incubator space is not the most important aspect of the center, which is more concerned with its offering of experienced professionals to provide assistance services. The ability of the center to offer the range of services required by startups for entering the U.S. market—investment sources, experienced mentors, space, research connections with VCU, clinical-trial and regulatory assistance— is a major factor in its success. This approach creates a strong business relationship with the founding members of an Israeli startup.

Milestones

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<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>1992</td>
<td>Virginia BioTechnology Research Park is incorporated.</td>
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<tr>
<td>1995</td>
<td>Park and incubator facility opens.</td>
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<tr>
<td>1996</td>
<td>Virginia-Israel Advisory Board is created.</td>
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<td>Mid-1990s</td>
<td>Governor and secretary of Commerce and Trade travel to Israel.</td>
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<tr>
<td>2007</td>
<td>Virginia-Israel Biosciences Commercialization Center is created. Center receives $800,000 grant from U.S.-Israel Binational Industrial Research and Development Foundation. Gateway America initiative goes to Israel to meet with startups.</td>
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<tr>
<td>2009</td>
<td>Virginia Life Sciences Investments LLC established; acquires Virginia-Israel Biosciences Commercialization Center.</td>
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<tr>
<td>2012</td>
<td>Nine Israeli companies occupy the center.</td>
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</tbody>
</table>
References


National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2009.


Website: http://vabiotech.com/commercialization/virginia-israel-biosciences-commercialization-center

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