



Life Sciences Industry Business Development Plan

Executive Summary
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Somerset County Business Partnership
360 Grove Street
Bridgewater, New Jersey 08807
(908) 218-4300
www.scbp.org

Background

It is well-established that Somerset County and Central New Jersey have enormous life sciences assets, constituting the predominant share of New Jersey's leadership status nationwide. However, for all of Somerset's strengths, its continued growth and vitality are impacted by the perhaps inevitable side-effects of its success, including high costs, infrastructure capacity constraints, regulatory thickets and the risk that state and local governments may take this economic engine for granted, and not as actively recruit, cultivate and coordinate its growth as other places (in the U.S. and abroad) that are still striving for what Somerset already has. A very similar and equally sobering assessment of all of New Jersey's technology clusters was recently issued by the Bloustein School in a report prepared for the NJ Commission on Science and Technology: "An Economy at Risk: The Imperatives for a Science and Technology Policy for New Jersey."

Against this context of state, local and industry trends, and the recent history of initiatives pursued by Raritan Valley Community College (RVCC) and other regional stakeholders, the Somerset County Business Partnership (SCBP) has sponsored this effort to develop a regional framework for actions that could help eliminate impediments to the continued growth of the life sciences industry in Central New Jersey. This collaborative review focuses on how these efforts can best be prioritized according to (a) the industry's own views about what mix of strategies will add value, and (b) strategies employed by other places with which Somerset is competing, both for new investment, and to retain the base that it has.

Scope of Effort

The objective of this study is to point toward market-based, industry-tested strategies that will make a difference and can realistically be implemented by the members of the Steering Committee, and the resources its members can leverage. There is to be a specific focus on the potential role for a physical focal point for a range of initiatives to be defined – the Business Development Center (BDC).

Always lurking in the background of this project has been the concept of some form of incubator, and whether it has an appropriate role in the BDC. This topic has some real promise, and merits both a dispassionate assessment of what its goals should be, and then a rigorous analysis of its potential market positioning and potential, realistic financial expectations costs, and the management options.

Also included in the scope of the preliminary report is a review of the factors that should determine the optimal location for a BDC in Somerset County. As a first step we were asked to review two potential locations – the RVCC campus and the Somerville Landfill site – as potential candidates for the BDC. The threshold purpose of this preliminary review is not to select a site for the BDC, or to suggest that only these two sites should be considered, but rather to flesh out the location variables that may be important to the BDC's functionality and ultimately its ability to be successful, which, in due course, will help guide the evaluation of potential locations. Where possible, we also have noted the strengths and weaknesses of these two sites as potential locations for a BDC.

Findings & Recommendations

The research for this project yielded several recommendations for action and further investigation. As a cornerstone of this project, we have focused primary attention on initiatives that the members of the Steering Committee can actually affect or influence directly. In some cases though, this means that the role of the Committee, or its members, is to exhort others to take actions more often than not, at the

various levels of state and local government, to address important, if not surprising, problems of infrastructure, regulation and education.

Below, we list each of these initiatives, accompanied by background on the specific challenges confronting the life sciences industry in Central New Jersey (as related by industry executives) and recommendations that we have suggested to address these issues.

➤ **Objective 1: Increase the Supply of Graduates in Targeted Disciplines**

The life sciences industry in general, and smaller companies in particular, are experiencing increasing difficulty hiring - particularly for scientific disciplines. Firms are apprehensive that a shortage of key skills will only increase as demand strengthens over time without a corresponding commitment of area universities and community colleges to increase the supply of graduates in targeted disciplines.

Recommendation 1.1: Commission a training needs assessment of the Central New Jersey biotechnology industry to identify the basic “foundation” disciplines and the knowledge and skills sets that are not typically taught in the post-secondary educational system. The assessment also should distinguish between the training needs of entry-level job candidates, incumbent employees and non-bioscience workers who might transition into this industry.

Recommendation 1.2: Establish a state-wide competitive grant program in which individual community colleges would vie to be designated as the state’s center for biotechnology training and industry collaboration.

Recommendation 1.3: Develop and fund a biotechnology training consortium around the new biotechnology training center wherein functional and curriculum development center would be established at selected community colleges around the state.

➤ **Objective 2: Increase Bioscience Awareness and Capabilities in Local School Systems**

While praising the quality of local school systems many in industry believe they do an inadequate job of advising students of their career choices and even less to encourage those with an aptitude to study the sciences.

Recommendation 2.1: Establish a center that mirrors a vertically-integrated biotech company to familiarize middle school and high school students and teachers with hands on biotechnology.

Recommendation 2.2: Outfit a “BioBus” permanent mobile learning lab for travel to schools and community events.

Recommendation 2.3: Assess potential channels to deliver community college- and university-level bioscience education and credits to qualified Central New Jersey high school students, including the “Early College High

School Model” (as envisioned in an earlier proposed Somerset/Hunterdon “Life Bio Science Career High School”); or articulation agreements between RVCC and regional universities (New Jersey and Eastern Pennsylvania). Also evaluate specialized internships (laboratory, marketing, etc.) and career counseling.

➤ **Objective 3: Help Local Entrepreneurs Grow and Become Successful**

The presence of a robust array of business development services at a single focused location – i.e., work force development, industry networking and related services are provided under a single roof – is extremely important to companies evaluating the facility and functionality of the life sciences cluster and the linkages between government, industry and academic institutions.

Recommendation 3.1: Create a “boot camp” for life science entrepreneurs including a Technology and Life Sciences Entrepreneurship short course, state and federal grant-writing workshops and one-on-one coaching.

Recommendation 3.2: Create a buying cooperative for life sciences entrepreneurs in Central New Jersey.

Recommendation 3.3: Assess the market for specialized facilities/services targeting startup and emerging biotechnology companies including:

- wet labs
- office space
- meeting rooms
- specialized scientific, regulatory and business databases
- management services space
- Small Business Development Center space
- storage space
- specialized waste disposal/management

➤ **Objective 4: Create a Convenient Life Sciences Business Development and Networking Center in Central New Jersey – i.e., BDC**

While potential paradigms in other states, such as the North Carolina Biotechnology Center, are well-known, life sciences executives revealed no clear consensus about the specific need for, or role of, such a facility in Somerset County. Such a facility could include a life sciences incubator providing many of the support services described in recommendation 3.3 above. Still needed are a rigorous market analysis, and review of an appropriate program to meet this defined demand, and the financing strategy for both the indicated capital and operating costs.

Recommendation 4.1: Conduct a detailed needs assessment for a specialized facility serving the life sciences community (biotechnology companies, large pharma companies, venture capitalists, service providers, etc.), to include:

- An incubator providing wet labs, office space, etc. as detailed in recommendation 3.3, above

- A large, multi-purpose conference center for:
 - Industry symposia
 - Job/Diversity fairs
 - Procurement fairs
- Food and hospitality services
- A library/information repository with industry, educational, labor market data, etc.
- Individual offices including space for vendors of industry support services such as VC's and other financing, regulatory/compliance, legal/accounting
- Hoteling/telecommuting space, etc.

➤ **Objective 5: Increase the Identifiable Inventory of Development-Ready Sites**

Companies with sizeable new facilities requirements are having a hard time finding places to land in New Jersey. The challenge is a lack of development-ready sites and the absence of a functional state-wide data base cataloguing such inventory. As a result the state has fallen out of the running for several recent, major bio-pharma projects.

Recommendation 5.1: Establish a functional/web-accessible data base of buildings and sites in Somerset County, in-lieu of any statewide program.

Recommendation 5.2: Create a Somerset County “certified sites” program, including some degree of pre-permitting, in lieu of the establishment of any statewide effort.

Recommendation 5.3: Assess the market for a “Bioscience Research Park” including multi-tenant office buildings, laboratory/classroom space, an incubator and associated retail and hotel/conference facility. The Somerville landfill site is a viable candidate for this purpose.

➤ **Objective 6: Streamline Local and State Regulatory Processes**

State and local governments in New Jersey are perceived as barriers to the success of many life science companies. Executives complained of unfathomable land development/environmental regulations and construction permitting requirements and of unusual and unaccountable delays in the handling of all kinds of permits.

Recommendation 6.1: Create an ombudsman to interact with state agencies, particularly those regulating emissions and the disposal of bio-hazardous wastes.

Recommendation 6.2: Create an ombudsman to interact with local planners and building officials on development applications.

Recommendation 6.3: Establish county-based training for local land use and code officials on idiosyncrasies of life sciences facilities and their requirements.

Recommendation 6.4: Establish program to promote outsourcing of plan review and related

functions when municipalities are confronted with complex projects.

Recommendation 6.5: Establish special expedited protocols for permits and inspections for high-priority projects designated by the County.

➤ **Objective 7: Fix the Roads**

Many industry executives believe that inadequate roads are the principal barriers to the continued growth of the life sciences industry in Central New Jersey. These same officials also decry the lack of any real transit or para-transit commuting alternatives.

Recommendation 7.1: Support funding remedy for Highway Trust Fund.

Recommendation 7.2: Create an industry advocate within DOT.

Recommendation 7.3: Explore interim para-transit alternatives.

Recommendation 7.4: Aggressively pursue the several pending transit-oriented developments. The landfill project should be accelerated.

➤ **Objective 8: Enhance Somerset County's ability to recruit new life sciences companies**

New Jersey has typically been unable, or unwilling to organize a multi-disciplinary team, involving partners from state and local government, the business community and academia to successfully attract new life sciences jobs and investment (though Governor Corzine announced that he intends to bring certain economic development policy and priority functions into the Governor's office could bode well for the state's future competitiveness).

Recommendation 8.1: Proactively target domestic and international companies (particularly those with an existing New Jersey presence) that have anticipated capacity issues/growth requirements.

Recommendation 8.2: Target companies with significant incentive to repatriate off-shore profits.

Recommendation 8.3: Organize a "Hot Opportunities" team to respond quickly and comprehensively to large, unanticipated life sciences prospects. These teams should coalesce around the Somerset County Business Partnership and include representatives from RVCC, the Vo-tech district, appropriate public school systems, the venture community, engineers, and management from any life sciences incubators, conferencing/network facilities and research parks.

Recommendation 8.4: Improve the County's prospect management "tool box" via enhanced GIS capabilities including the ability to map sites, infrastructure, labor/demographic variables.

Location Considerations

As an overall observation, the RVCC and the Somerville Landfill sites are at various early stages of review by their respective owners as to the intended uses, and each is subject to potentially protracted planning and review processes. The formulation of a coherent BDC strategy, and assembly of the necessary political and financial support behind it, may help inform and even motivate these site planning initiatives. The following is a brief summary of the relative differences, strengths and weaknesses of the two sites as a potential home for a BDC:

SITE COMPARISON			
	Criteria	RVCC	Somerville Landfill
1	Location	Both sites offer comparatively attractive locations in the heart of Somerset's life sciences market, but with varying strengths and weaknesses.	
2	Access	Each site has relative strengths.	
2a	Vehicular	Convenient access to Rts 22 and 202/206 (but dependent on Somerville Circle).	Proximity to Somerville Circle, although site access from congested Rt 206 is an issue.
2b	Mass Transit	Essentially auto-dependent.	Potential nearby NJ Transit greatly enhances access and labor reach.
3	Leveraging other Assets	Would leverage existing and new bio-ed programs, corporate training resources, existing campus facilities and the SBDC.	From scratch development; but leverage may eventually come from the mix of co-occupants in the larger overall development. Significantly broader range of occupancy options and advantages, including serving as a place where firms can graduate and grow into over time.
4	Scalability	The 12/02 master plan identified a 15-20 acre site limited to about 100,000 sf of development.	The Landfill offers potential of > 1 million sf of tech park development, which could play a potentially larger role in the ability to compete for jobs/investment.
5	Land Use Approvals: Expedition and Reliability	As a State entity, RVCC is empowered to proceed independently of municipal control, but tradition of consultation and accommodation is a political necessity, and could entail delay and/or dilution of plan.	Redevelopment plan process: Once consensus is reached, the Redevelopment process offers opportunities for expedition. Environmental conditions and need for review/approval of remediation plan creates timing/cost uncertainties.

SITE COMPARISON			
	Criteria	RVCC	Somerville Landfill
6.	Costs	Key advantage is exemption from real estate and potentially other taxes. Costs of execution may be issue at RVCC. Developer alternative may be advisable. Attributed land cost is an issue to be reviewed.	May be high cost alternative due to remediation and site costs, potentially mitigated by State incentives. Developer-executed plan may be low-cost delivery alternative, subject to appropriate accountability. Attributed land cost is an issue.
7.	Financing	Key advantage is exemption from real estate and potentially other taxes. State community college funding mechanism also useful, but may be uncertain under current budget conditions. May be in better position to capture not-for-profit support.	Assuming successful market targeting and acceptance, significantly broader potential asset base, which can be harnessed by new tax increment financing vehicles and other techniques that can mitigate relative tax burden.
8.	Governance / Decision-Making	Would have to determine the extent to which the BDC would be subject to direct RVCC board or management control or have independent management subject to oversight/accountability.	Redevelopment structure permits flexibility to design management and governance around practical requirements of the project, including employment of developer expertise, financing, contracts.