

Cape Coral, Florida

**Life Sciences Cluster Assessment and
Strategy**

Executive Summary

October 31, 2007



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and Strategy**

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Prepared for

City of Cape Coral
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1. Project Background

After analyzing the broad spectrum of Cape Coral's economy, ICF was asked to delve deeper into the life science cluster and develop a cluster-based strategic approach to developing and growing the cluster in Cape Cora. ICF believes that the key to building a sustainable and prosperous cluster is to accelerate the ability of private and public organizations to learn and change so that advantages are continually created for existing and emerging industry clusters. Thus, we proposed to build-off preliminary research by engaging the key stakeholders within the region's life science companies and organizations.

ICF reached out to three main constituent groups within the region's life science community; key industry participants who are the leaders of Cape Coral bio-science companies, key government participants who are members of regional economic development groups and key institutional participants, executives and professors at Florida Gulf Coast University (FCGU). Despite early outreach and support from the City's Economic Development Office, ICF experienced a fair amount of political hesitancy from participants and was unable to garner enough support to convene the 'Market Place' for a series of focus groups. Therefore, in place of collaborative sessions, ICF engaged in targeted interviews with key regional life science leaders. ICF conducted ten interviews, with roughly equal distribution between private companies, the public sector and representatives from the City's main institution, Florida Gulf Coast University. For a complete list of interviewees and their contact information, please see **Appendix A**.

2. Life Science Cluster Strategy

The initial question posed in most of the outreach efforts, was ‘What does the Life-Science Cluster Include’ and therefore this report will begin by describing the definition used by the ICF team throughout this analysis. For this purposes of this report, ICF adopted a very inclusive definition, including the traditional biotechnology industry, the medical device manufacturing industry and the pharmaceutical industry.

Task 1: Advise the EDO on Strategic and Tactical Cluster Development Issues

To provide context for the Cape Coral situation, ICF first explored the surrounding competitive environment. Florida is major player in the life-sciences with roughly 36,000 life sciences establishments and nearly 651,000 people employed in the cluster. The State has distinct foundational competitive advantages in innovation, infrastructure, governance and workforce. Florida has put considerable attention into building its innovation base, with increased university biomedical research capabilities, increased university funding and new research institutes. In addition, there are a growing number of state of the art facilities around the State, providing the proper infrastructure to support and grow the cluster. Lastly, the State government has provided a pro-business climate, conducive to collaboration. With these assets encouraging the momentum of the cluster, it is not surprising that Florida is increasingly able to attract talented scientists, again a critical component to the sustainability of the cluster.

There have been numerous recent successes throughout the State, important models for what Cape Coral can hope to accomplish. Florida has gained recognition for its successful private companies; for example a Florida company, Nanotherapeutics, was voted “Most Promising” pharmaceutical company by the American Society of Mechanical Engineers. The State has also increased its research capacity by attracting the East Coast R&D centers for three of the most esteemed biomedical research outfits in the world: The Scripps Research Institute, the Burnham Institute for Medical Research and Torrey Pines Institute for Molecular Studies. In part due to this success, Florida's life sciences cluster has continued to diversity into emerging and exciting fields such as regenerative health biotechnology, marine biotechnology, biological defense, and brain and Alzheimer’s research.

Closer to home, South Florida and even the Southeast region has had recent life science related activity. In 2004 a major effort was pushed to create a Biotech Research Park at Florida Gulf Coast University (FGCU). In 2005 FGCU was the recipient of a \$1 million grant from the U.S. Department of Defense to conduct research that will help develop the United States’ bio-defense potential and provide new technologies with civilian applications. More recently, nearby Charlotte County has waged a major attraction effort to develop life sciences. Cape Coral needs to continue to encourage the attraction and growth of the cluster if it wants to become a player. Today, Cape Coral’s life science cluster is in its seed stage. It lags behind other key Florida locations in employment, specialization and growth. That said, Cape Coral does have specialization in the medical & diagnostic laboratory industry, with a Location Quotient of 1.23. This industry provides roughly 530 jobs in the Cape and shows modest growth of 4%. To successfully develop a life sciences presence,

Cape Coral needs to take advantage of what little activity is currently occurring and diversify. The first step to achieving growth is to understand the critical foundations that are hindering or supporting the industry's development.

Task 2: Assist the City in identifying the Key Factors in Cape Coral's Competitive Advantage

It is the ability of input foundations to support a cluster that allows it to grow and develop. In their absence, it is very difficult for a cluster to flourish, in spite of best intentions and other support. Therefore ICF analyzed the availability and performance of these critical foundations in Cape Coral to assess the City's advantages and identify areas where assistance programs were needed. The best method for analysis is outreach to the community, as their input is not only representative of the businesses community's 'perception' of the situation, the process of voicing their opinion also garners a sense of buy-in. As community responsiveness and support is vital to any successful effort, this established 'buy-in' is almost as important as the content of their responses. Throughout this foundation analysis, ICF analyzed seven input categories;

- Infrastructure: Availability of Premier Facilities
- Innovation: Research Capacity
- Governance: Business Climate
- Workforce: Skills Capacity
- Quality of Life: Attract the Best
- Marketing: Ensure Cape Coral is Known
- Finance: The Next Ingredient

A review of the City's competitive challenges identified critical deficits in all foundation inputs. After a brief overview, this report will delve deep into each foundation and explore its strengths and weaknesses as well as propose recommendations. The most commonly articulated challenge identified Cape Coral's need for premier R&D infrastructure. Many local life science leaders agreed that the City needs a creative approach to encourage the community and FGCU to support the development of a jointly owned/financed life science research park. In addition, to infrastructure, there is a need to grow FGCU's life-science and bio-ecology research and development capacity. In addition to needed innovation capacity at the local university (FGCU), there is a great need for the City to attract more experienced business and technical talent to commercialize the generated R&D. One major attractor of top talent is a high quality of life. The City needs to keep the bar high in terms of residential amenities and provide tech-parks with expected corporate perks. Apart from concrete presence of people and infrastructure, Cape Coral needs to improve its political image and encourage a business friendly environment. Many interviewed felt that the City was projecting an anti-businesses persona that did not support the creation of a life science 'brand' for Cape Coral.

INNOVATION

When evaluating Cape Coral's innovation advantages, ICF reviewed their research capacity in the life sciences or related fields. Florida Gulf Coast University, the region's closest university was seen as an asset. FGCU is one of the fastest growing universities in Florida and is known as a regional center for ecology and conservation biology. That said, FGCU is not a premier research university. One of the region's main challenges in innovation is that it lacks a top-tier research university or hospital. Without either of those R&D assets, the region's ability to produce and attract top engineers is hindered. Additionally, life science companies like to cluster near other life science companies, and thus without a large anchor company it is difficult for Cape Coral to build momentum and attract further companies.

ICF discussed these challenges with the life science community interviewed. Many felt that the first step to building the City's innovation capacity was to support FGCU to upgrade their biosciences department and build a joint-venture R&D Park.

GOVERNANCE

The perception of Cape Coral's Business Climate has a large impact on the success of existing life sciences companies as well as the City's ability to attract new firms or investment. Many interviewed indicated that Cape Coral local government has the stigma of being 'anti-entrepreneurial.' Many expressed frustration at the City's permitting process that is time consuming, confusing and in their opinion hinders the expansion of existing firms. Cape Coral shares the same benefit of all Florida locations in that it does not have state income tax, which is a benefit for companies.

To capitalize on this statewide incentive, many interviewed felt that the City should create permitting/construction streamlining for life science companies to eliminate that perceived barrier.

WORKFORCE

While not the first issue brought up during discussions with the Cape Coral life science community, skills capacity is critical to maintaining and attracting the cluster. Cape Coral's outstanding quality of life attracts workforce of all kinds which bodes well for the City's ability to attract and retain premier life science workers. Currently, the City has the workforce capacity to fill lower-end manufacturing and middle management/accounting jobs, however until life science companies/R&D agglomerate in the region; it is not able attract top talent. It is a bit of a cyclical 'chicken and egg' issues, until the life sciences cluster, talent will not be attracted or encouraged to remain in the region, but it is also very hard to build a cluster without existing talent.

Workforce professionals that were interviewed felt that one way to ensure that proper labor existed was to encourage the city, at the first sign of growth, to work with regional Workforce Investment Boards to create training programs at all levels. Another short terms solution might be for the City to give cash incentive to hire locals and encourage growth in certain industries, such as those that share similar skills sets to the life sciences.

QUALITY OF LIFE

As previously mentioned, an important aspect of talent attraction and retention is quality of life. In fact, throughout the interview process 'quality of life' was reported as the main factor attracting companies and workers to Cape Coral. That said, once in Cape Coral many of the interviewees identified a few challenges, namely, the lack of entertainment options in Cape Coral compared to nearby Ft. Myers. Additionally, there is a perceived lack of high skill/creative employment opportunities that hinders the retention of the younger or more entrepreneurial demographic.

The first step to fighting these challenges might be to upgrade restaurant, bar and other entertainment options in downtown Cape Coral. This step will symbolically indicate the City's commitment to improving quality of life, as well as providing more activity and employment for local residents.

MARKETING

Part of attracting and retaining life science companies and labor is branding Cape Coral as a premier, technology-oriented location. While this foundation is harder to quantify than financing dollars or percentage of the population with a higher degree, it is no less important. The indicators that measure strength or weakness in 'brand appeal' are numerous and diverse, making common perception a critical element to this input. Recently FGCU was awarded Division I sports team status which will increase the publicity for the region and build on the already existent perception that Cape Coral is a premier residential location. These two positive quality of life portrayals are tempered by challenges on the business branding side. The local life science cluster is too small to generate excitement and Lee County does not have a large marketing pull.

To become a national, let alone regional, life science hub Cape Coral needs to market its brand to a wider audience. One way to achieve this would be to sponsor more events such as the Lee County Medical Design Show or host a Bioscience event similar to that put on by the Palm Beach County Business Development Board. This type of publicity not only attracts outside industry to town, but also gets Cape Coral's name circulating in the life science circle.

FINANCE

Due to the nascent position of Cape Coral's seed life science cluster and other foundation inputs, it seems premature to expect the City to have a fully functioning financing mechanism. While critical, access to financial capital is on the horizon for Cape Coral. After the City is able to build its innovation and workforce base, financing will be the next ingredient.

Once firms and entrepreneurs are attracted to Cape Coral, funding will be the first major issue that will need to be addressed. In the meantime, the City should work with the private investors and venture capital representatives to set-up funding mechanisms in anticipation of cluster growth.

Task 3: Identify Market and Recruit Prospects to Cape Coral

The life science cluster analysis completed during the Cape Coral Targeted Industry Strategy identified key regional markets for life science company recruitment. The report suggests tapping into Cape Coral's Vulnerable Competitor Tampa, to tailor its own incentive program after the needs of deflecting firms. Heavy recruitment should be done in Tampa, particularly to those firms that have not set down permanent roots. Additionally, Cape Coral should look to Growing Competitors like Miami, Sarasota, and Orlando to learn from their experiences and mimic the advantages that those locations provided to incoming firms.

To catch-up and build off of the success of the nation and the state, Cape Coral will need to create a fully tailored strategy, bolstered by public and community support, to attract and grow the life sciences. Due to the complicated nature of this cluster and its needs, many locations are putting full effort into creating custom strategies for one or a collection of companies/institutions, this raises the bar and means that to compete, Cape Coral will need to decide if it wants to be a player and dedicate valuable assets to this effort. The key points to the strategy are discussed here in this report. Cape Coral should focus on target segments that it is currently capable of attracting to initially boost its cluster depth. The key segments for this region are medical device R&D and manufacturing and laboratories (NAICS 3391 and 6215). Cape Coral should focus on niche markets that it has existent competencies in such as bio-ecology R&D, related to FCGU everglades research. The City needs to remedy its foundational weaknesses by prioritizing the creation of cluster infrastructure, possibly with the creation of a biotech/life-sciences park and increase its innovation and skills capacity in niche segments. To achieve these goals, the City should establish a cluster association to examine markets and regional assets and identify target segments or companies. Building ground-up regional cluster capacity is the first step to becoming a major player in the life science industry.

This report identified key locations and segments for attraction, however it is the opinion of ICF that Cape Coral is not yet prepared to reach out to individual companies. ICF bases this opinion on the results of interviews and an e-survey conducted throughout the course of this and the accompanying Targeted Industry Study. Many interviewed expressed an interest in expanding in Cape Coral, but felt until the City showed some sign of commitment to remedy the above mentioned challenges, it would be too premature for them to ready themselves. Of the companies and institutions interviewed, many articulated a desire to support the city and assist in the process of developing this exciting cluster. However until a good faith effort from the City is perceived, this community will not mobilize. Because of this hesitancy, ICF did not pursue any companies for attraction.

Task 4: Identify the Best Methods and Messages for Attraction

ICF conducted a Best Practices review to highlight actions taken in other similar locations that could guide the 'Next Steps' of the Cape Coral life sciences strategy. As foundations are literally the foundation building blocks to creating a successful economy, the Best Practices are categorized by the foundation input they strengthen.

INFRASTRUCTURE/FINANCE

- Research labs for industry use (Univ. Georgia, Iowa, Ohio State, Maryland).
- Torrey Pines Institute for Molecular Studies (Port St. Lucie, FL)

- Vancouver, BC: Discovery Parks: Associated with UBC, combines office and wet-labs for lease with incubator and build-to-suit.
- Torrey Pines Institute for Molecular Studies (Port St. Lucie, FL)
- Life Sciences Greenhouse and Bioadvance (Philadelphia, PA).
- San Antonio Life Sciences Institute (biotech infrastructure: park, low-cost lease wet labs, build-to-suit).
- Nationally: There are now 18 bioscience parks; 57 tech parks with bioscience; bioscience zones.
- San Francisco eliminated payroll tax for biotech firms.

INNOVATION

- Lily Endowment for recruiting faculty and Discovery Park (Purdue, IN).
- University R&D centers with links to industry (Cornell, NY; Madison, WI).

MARKETING

- Bioscience Stakeholder Meeting (Palm Beach Chamber)
- Bay Area Bioscience aggressively promotes SF firms.
- San Diego UC-Connect links researchers to investors and partners for growth.

WORKFORCE

- Working with K-12 to advance bioscience education (CORE, Connecticut).
- Cluster-based recruitment efforts (Vancouver, BC).
- Community college Biological Technologies Initiative (San Diego, CA).
- State University Program for Education & Research "SUPERB" for curriculum, joint ventures and research centers with industry (CSU System).

Task 5: Coordinate 'Next Steps'

Lastly, ICF identified three key action items that Cape Coral should consider as priority Next Steps. If the City can complete these steps, it will build the community support and momentum needed to get the Life Science Strategy underway.

Cape Coral's first agenda item should be to 'Convene the Market Place.' This constitutes getting enough support from the community to bring key representative from both the public and private sector together to discuss issues related to the life science industry. One possible way to achieve this would be for the City to attend meetings such as the Bio-Florida annual meeting (October 15-17) to generate momentum and publicize the fact that the City is putting effort into developing this critical cluster. Another key issue that could rally local life science constituents is

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a roundtable to discuss the possibility of development on the Academic Village Site. Both of these actions would advance the current dialogue and show the community that the City is energized to create change.

A second critical task is to stimulate innovation in the region. Cape Coral has the advantage of the State's premier R&D capabilities and therefore needs to tap into Florida's Centers of Excellence program to spur technology transfer. Other locations around Florida have utilized this program to their advantage and Cape Coral, with the help of Florida Gulf Coast University could as well.

Lastly, the City needs to address the issue of infrastructure. Numerous interviews stated the need for a designated Science Park and recent developments around Florida indicate that a community willing to create the space, can attract companies or a major institution. While there is some hesitancy, Cape Coral should strive to enliven the community to commit to a deal. Many of the recent life science successes around the State has been spearheaded by a private or public gift of land, community support (taxes or a bond) to build a facility and then the application of State money to attract a major life science company or research institute. Along this vein, it was suggested throughout the interview process that Cape gift land to the FGCU so that they can apply for state funds to build an R&D Park.

Appendix A: Interview Contacts

Private Companies

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