Rutgers Food Innovation Center Overview and Clients Served

The Rutgers Food Innovation Center (FIC) is a unique business incubation and economic development accelerator program, which provides business and technology expertise to small and mid-sized food and agribusiness companies in New Jersey and the Mid-Atlantic and Northeast regions, and utilizes its outreach capacity to reach food and agribusinesses throughout the world. Over 1,200 companies and entrepreneurs have been assisted since the Center began operations in 2000 including:

- **Farmers and Agricultural Cooperatives** desiring to create new businesses based on value-added agricultural products and/or developing new markets for their existing commodities
- **Startup Food Companies** coping with challenges such as financing, technology, regulations, market development and infrastructure requirements
- **Existing small and mid-size Food Companies** seeking to access new technologies, upgrade quality assurance capabilities, enter new markets, train their workforce, and expand and improve their operations
- **Retail and Foodservice Establishments** seeking to improve their operations and purchase locally grown New Jersey products

The Rutgers Food Innovation Center has been recognized globally, nationally and throughout New Jersey for the effectiveness of its economic development programs, and has been:

- Awarded “Incubator of the Year”, in the services and manufacturing category, by the National Business Incubation Association (NBIA), which represents approximately 7,000 business incubator programs that exist worldwide.
- Recognized as a national “Innovative Program Model” by USDA Rural Development, in which the Food Innovation Center received a Partnership Award for “achievement as a model for community and economic development and jobs creation”
- Recognized as a national “Agricultural Innovation Center Demonstration Program”, by USDA CSREES, based upon a “demonstrated track record of achieving value-added successes through its use of highly qualified and experienced personnel, a well developed work plan with an emphasis on economic development and a commitment to community partnerships”.
- Recipient of the Rutgers Presidential Award for Research in Service to New Jersey for “contributions to the health and economic well-being of communities across New Jersey”.
- Recipient of the Economic Development Achievement Award from PlanSmart NJ, for “outstanding leadership in promoting economic development in a way that is respectful of the principles of smart growth”
The mission and vision of the Rutgers Food Innovation Center is:

**Mission**

To stimulate and support sustainable economic growth and prosperity to the food and agricultural industries in the New Jersey region by providing businesses with innovative research, customized practical solutions, resources for business incubation and a trusted source for information and guidance.

**Vision**

To serve as the catalyst that will promote a viable and prosperous food processing and agriculture base in New Jersey, translating into considerable benefits for the region, and to become recognized as a global model for regional economic development.

**Origins and Geographic Base**

Addressing the needs of the agricultural and food industries is key to the economic well-being of New Jersey, as the $81+ billion food and agricultural complex is the state’s second largest industry. The food industry accounts for an estimated $81.7 billion in direct sales that occur at more than 37,000 firms and 9,900 farms in New Jersey (2002 data). This industry employs approximately 400,000 (11.8% of state), generates approximately $7.8 billion in wages, and is particularly critical to the economic stability of the southern part of New Jersey. Southern New Jersey is the hub of New Jersey’s agricultural and food processing industry, with the majority of New Jersey’s fruit and vegetable production located here. Over the past two decades this region has been economically hard hit due to loss of farmland to residential development, loss of food processing firms due to high labor and regulatory costs and the closing of support industries such as agricultural equipment suppliers and glass manufacturers. Southern New Jersey’s higher than average unemployment rates have many underlying causes, some of which include lack of education, poor job training and distance from major employment centers. To create jobs in this region, a strong, viable agricultural and food industry sector is needed.

The Food Innovation Center is an excellent example of Rutgers’ commitment to engage in local and regional economic development, encourage entrepreneurship and strengthen public scholarship through civic participation. As a land grant university, Rutgers and the New Jersey Agricultural Experiment Station (NJAES) have provided service to the residents and communities of New Jersey since 1862. The Food Innovation Center is part of an overarching, long term comprehensive economic development strategy for New Jersey that contributes to the revitalization of economically-depressed areas and helps to achieve a rising standard of living by supporting existing industry clusters, developing emerging new clusters, and attracting new regional economic drivers.

A Rutgers NJAES study of the status and condition of New Jersey’s food and agriculture industry was conducted in 1998, which quantified the significant decline in New Jersey’s food industry, recognized the need for value added enterprises that were necessary to create viability in the agricultural and food industry sectors, and identified Southern New Jersey as the hub of the state’s food processing industry. Furthermore, this research identified key business needs that would be critical in order to create jobs in this region and to create a strong viable food industry sector within the State. These needs included:

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o Need for information on business planning, market research, capital access, corporate governance, regulatory and permitting requirements, legal matters, product and process development, marketing and sales strategy;

o Need for training and workforce development on best practices in quality assurance and food safety;

o Need for assistance in development of value-added differentiated products, in order to compete in an increasingly complex retail and foodservice environment, which is undergoing significant industry consolidation;

o Need to reduce startup expense associated with new product development, equipment costs, and market entry;

o Need to safely and legally produce food products in an FDA and USDA inspected facility;

o Need for access to new technologies and best practices that will lead to long-term sustainability and growth to businesses.

In response to these needs, the Rutgers NJAES created the Food Innovation Center, and located it in Bridgeton, in Cumberland County. Bridgeton ranks second to last among New Jersey’s 566 municipalities in per capita income. The city is in both a state Enterprise Zone and in a federally designated Empowerment Zone. Cumberland County has the lowest per capita income in the state, and also one of the highest unemployment rates. The Food Innovation Center conducted an extensive feasibility study in 1999 which helped in identifying the clientele base. A detailed business plan was then created based on significant primary and secondary market research. In addition, the Center later led a national benchmarking study on best practices in food business incubation, and completed a comprehensive strategic plan and 7-year financial proforma.

**Business Incubator Facility**

The Rutgers Food Innovation Center began operations in 2000 with a service-centric program with offices in Bridgeton, in Cumberland County, in the hub of the agricultural and food processing industry of NJ and in an area that is very economically depressed. A very important consideration was that the FIC did not want to begin its program with a dedicated facility until its program was fully developed, so approached its incubator development in two specific phases. Although the time period could have been much shorter, the Center operated out of a rented office for the first 8 years before moving into a full-scale incubator facility. This allowed adequate time for the incubator model to be fully tested, and enabled the Center to:

- Fully develop its programs and services, which resulted in client needs being met and success stories being generated
- Gradually hire a dedicated staff, and establish a network of resources to meet the broad needs of its clientele
- Have adequate time to apply for federal, state, and community capital grants, and other sources of funding, that would ultimately reduce the financial burden and operating costs of the Center (the Center’s goal was to build the facility with 100% of costs coming from grants, which it was able to accomplish)
- Allowed the Center to ensure that sufficient demand existed for center services before a significant financial investment was made into a building, resulting in a pipeline of revenue-generating projects that could be in place by the Center’s grand opening
Because of significant commitment that the Center was able to develop - at the federal, state, and community level - the $8 million food business incubation facility was built entirely from grants, demonstrating the tremendous support for the Center and its programs. Construction and operating funding originated from the US Economic Development Administration, US Department of Agriculture, State of New Jersey, Rutgers New Jersey Agricultural Experiment Station, New Jersey Casino Reinvestment Development Authority, New Jersey Commission on Science and Technology, New Jersey Department of Agriculture, Cumberland Empowerment Zone, and the City of Bridgeton.

In October of 2008, the Food Innovation Center opened its new 23,000 sq. ft. food business incubator facility in Bridgeton, which has resulted in a tremendous expansion of its capabilities and impacts. As a result, the Center is now able to assist its clients with the design, development, marketing, analysis, commercialization, and ongoing manufacture of products for sale to retail and foodservice markets in its USDA and FDA regulated facility. The business incubator facility enables new companies to be formed, and provides a vast array of resources and technologies to existing food and agribusiness companies as well.

The Center’s facility consists of a:

- **Client Services Area**, in which clients can be provided with marketing, development, and analytical support, and are assisted from concept to commercialization. The Client Services Area includes a:
  - Training and Education Conference Room, with Distance Learning equipment
  - Consumer Research and Focus Group Area
  - Product and Process Development Research Kitchen
  - Sensory Evaluation Center
  - Microbiology and Analytical Chemistry Laboratory
  - Research Library

- **Shared-Use Processing Area**, which uses an array of food processing technologies to produce a broad range of value-added agricultural and food products, such as fresh-cut vegetables and fruits, jams, jellies, soups, sauces, beverages, pies, cakes, breads, seasoning blends, entrees, side dishes, etc. This includes a
  - “Hot process” area designed for an extensive range of thermal processing capabilities including hot-fill quick-chill technologies, blanching, steaming, cooking, roasting, and baking, including a bottling line for automated production.
  - “Dry process” area, devoted to equipment used for producing items such as breads, pies, cookies and other baked goods, as well as dehydrated fruits, vegetables, and herbs utilizing a variety of food technologies.
  - “Cold process” area (under development) designed for preparation and processing of produce in the raw state, including post harvest preparation, sanitation, peeling, size reduction, microbial reduction technologies and extended shelf-life packaging, all in a controlled environment
  - “Cold assembly” area, which allows for packaging of refrigerated, frozen or ambient products, in a HEPA-filtered clean room, under refrigerated conditions.
A schematic of the facility design is as follows:

**Impacts**

Within its fifth year of operation in its incubator facility, it has been estimated that the Food Innovation Center will facilitate the creation of over 1,000 net new jobs, and over $200 million in cumulative new revenue for its clients, in addition to millions of dollars in local tax revenue. Furthermore, it is estimated that thousands of employees will be impacted via its programs in quality assurance, new technology development and integration, and workforce development/training that will assist in the creation and retention of high-paying jobs in the community.

In 2011, the Center plans to “graduate” its first business, the world’s largest gluten-free manufacturer, which chose to establish its first US operation in New Jersey because of the expertise and infrastructure provided by the Food Innovation Center. This company will then relocate to its own facility, and is currently evaluating production operations that are approximately 50,000 sq. ft. in size, which will likely employ over 50 individuals.

During the period 2010-2015, economic development impacts provided by the Food Innovation Center will include the following:

- New Businesses Created
- Businesses Sustained in community, region, and state
- Direct and Indirect Jobs Created/Retained
- Increased Client Revenue/Profits
- State, Federal, Venture and Private Equity Funding brought to Clients
- Domestic and International Companies that move to New Jersey
- Commercial Space taken in Community from Graduates
Increased Community Wealth, and Rural/Urban Revitalization
International Collaborations with Incubators and Universities Resulting in Knowledge Transfer and Regional Economic Development

In addition to supporting and impacting the food industry, the Food Innovation Center provides impacts to communities and citizens. Community service programs include:

- Food industry training for unemployed community residents, via alliances with county Workforce Investment Boards
- Workforce training for incumbent workers at established food companies, with courses that include: Microbiology of Food-borne Illness; Allergens & Cross-contamination Control; Food protection & Bioterrorism Control; and HACCP Certification
- Internships and experiential learning opportunities for high school and college students
- Statewide leadership in farmers market best practices, due to a comprehensive study and educational programs that were completed in 2009.
- Community development as a result of support to municipalities considering the creation of a year-round destination food market as vehicle for downtown revitalization
- Community food security programs via collaboration with food banks, in which the incubator facility can process gleaned produce, create new branded products, etc

**Organization and Resource Network**

The Rutgers Food Innovation Center business incubator has created a critically-needed *food industry business cluster*, which has resulted in concentrations of interconnected companies, suppliers, service providers, and associated institutions. It has specifically aggregated the food industry value chain, and has also aggregated a network of resources to meet the diverse needs of its clientele. In the development of this program, and in the delivery of its programs, the Food Innovation Center has created a well-established network of resources that provided a multi-disciplinary approach and significant impacts for its clients. This network includes:

- **The Rutgers Food Innovation Center team** of full-time and part-time business and technical professionals that have a broad array of industry and entrepreneurial experiences. Several members have held senior management positions at major international food companies. The high level of industry expertise sets this Center apart from typical university-based programs.
- **An Internal Network of Resources at Rutgers University** composed of a diverse array of schools, departments and centers throughout Rutgers University.
- **An External Resource Network** composed of federal, state, and county agencies, including USDA Rural Development, USDA Agricultural Research Service, NJ Dept of Agriculture, NJ Economic Development Authority, NJ Department of Labor, Workforce Investment Boards, SBA, SBDC, and others.
A best-practice business incubator serves as an industry aggregator, cluster creator, and the hub of knowledge transfer for the sector it serves. An illustration of the Food Innovation Center client and resource network, that is the basis for its food industry cluster, is as follows:

The effects of the strategy to the region are significant. The City of Bridgeton, home to the Rutgers Food Innovation Center, is now in the process of rebranding and repositioning itself to attract and retain food businesses to the city. The City has renamed its only two industrial parks “Food Industry Park South” and “Food Industry Park North”. In addition, the County of Cumberland has been recognized nationally for the food industry cluster that now exists – The County received *Expansion Solutions Magazine’s* 2008 Award of Excellence in the Food Processing industry category, for demonstrating exceptional progress and potential by successfully recruiting, retaining and growing businesses in this industry cluster.

**Best Practices Employed**

Consistent with the guidelines of the National Business Incubation Association, the Rutgers Food Innovation Center has committed to the core principles of business incubation, obtained consensus on its mission, and developed a comprehensive business plan and financial proforma utilizing the input of a broad spectrum of stakeholders from the public and private sectors. Furthermore, it has established a structure for financial sustainability; recruited an outstanding management team with entrepreneurial experiences gained from the private sector; built an extremely effective Board of Advisors that includes substantial leadership representation from the public and private sector as well as industry trade associations; prioritized management time to place the greatest emphasis on client assistance; developed an incubation program and the resources, methods and tools that allow it to effectively deliver its services; integrated the incubator program and activities into the fabric of the community; developed an extremely strong resource network; and developed a management information system that enables program evaluation and outstanding customer service.