

Introduction to Executive Summary

The Ontario County Office of Economic Development/Industrial Development Agency (OED/IDA) has had a long run of successfully sustained growth in both jobs and wages. Its 1998 strategic plan commented on the agency's ability to maintain growth in manufacturing in a time when most other counties in New York State were losing manufacturing jobs.

The strategy called upon the agency to build upon its strengths in manufacturing, while seeking to diversify the County's economic base by attracting firms in "producer services (i.e., companies that provide services that assist manufacturers in their work) and health care. From 1998 to 2000 (the most recent year for which data were available), manufacturing employment in Ontario County has increased from 7,280 to 7,461 or by 2.5 percent. Health care employment also grew from 5,735 to 6,064, a 5.7 percent increase. Producer services grew between 2 percent and 6 percent.

In 2002, the OED/IDA began the process of updating its strategic plan. Yet given the County's long term success in economic development, why is it important to update a successful strategy? The answer can be summarized in one word: change.

New Opportunities/New Challenges Associated with Technology-led Development

Over the last generation, the most attractive potential sources of growth have shifted from manufacturing and high-value added service in general to *technology-led* manufacturing and services. In traditional development, jobs are created as firms expand production of their existing products. In the global economy, expanding standard production often means shipping more jobs overseas.

Thanks to the attraction of the Cornell Agriculture and Food Technology Park and the Center for Excellence in Infotonics, Ontario County has a very real opportunity to become the home of a variety of companies that will be setting worldwide standards in the use of such cutting-edge technology.

*Technology-led
development can only
happen where you have
access to world-class
research, top talent, and
sophisticated venture
capital.*

*This type of job creation
tends to stay in the
United States*

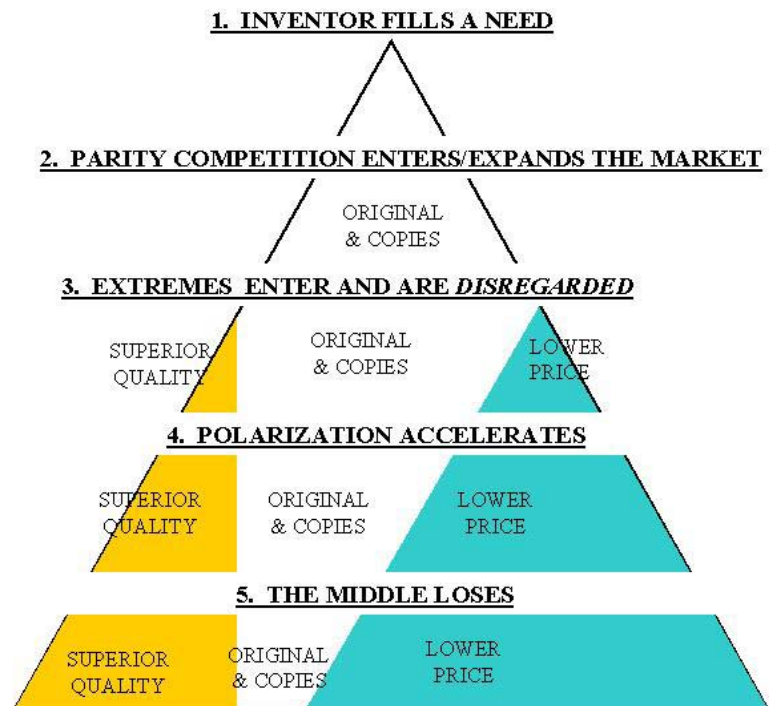
Positioning Ontario County as a Premium Location for Technology-led Development

The critical question facing a County looking to better its local economy becomes: “how are we going to compete in the marketplace to attract and grow businesses?” Marketing consultant A. H. Pete Mathieu created a model to help makers of consumer products decide how they would compete. Simply put, products can compete on the basis of providing either high quality or low price. More importantly, Mathieu points out that, as any market matures, it polarizes. That is, the consumers split into two groups: those that prefer premium products and those that prefer low cost products. If your product is not clearly identified as either a premium product or a low-cost product, it will lose to the products at those two extremes. (See Figure 1.)

Figure 1.

The Market Polarization Model

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As markets mature, they polarize between superior quality and lower price. The middle offers neither and loses.

A “middle market” giant like Sears eventually lost its market to the low-end discounters like Wal-Mart and the premium outlets like The Talbots and Nordstrom. The “Big 3” automakers almost went bankrupt responding to the combined pressure from low-cost Japanese cars and high-end models like Mercedes, Volvo and Lexus.

In Ontario County's case, the successful development of the Cornell Agriculture and Food Technology Park along with OED/IDA's recruitment of the Center for Excellence in Infotonics has propelled the County into a position as a premium location for technology development. Ontario County now is faced with the opportunity (and challenge) of competing as a premium location for technology led development.

If Ontario County makes a long-term commitment to foster innovation in general, it will be prepared to pursue other opportunities associated with the next waves of technological growth and change.

If in its response to the growth, Ontario County makes a long-term commitment to foster innovation in general, it will enable the County to emerge as premium location for the current wave of technology-led development. Just as important, it will leave the County prepared to pursue other opportunities associated with the next waves of technological growth and change.

We recommend that the County fully embrace this opportunity and make the commitment to capture, to the fullest extent possible, the technology-led employment opportunities that will be spun off from both of these major economic catalysts.

What does the County need to do in order to take advantage of this new type of opportunity?

The strategy's recommendations that follow have a double focus: positioning Ontario County as a premium location for the opportunities of today, while preparing it to identify and take full advantage of the opportunities of tomorrow. The recommendations are grouped in the following five major areas of focus:

- Strengthen the Technology Commercialization Path
- Keep Building a World-Class Workforce
- Retain/Expand Mature Industries
- Promote Selected Retail Development
- Initiate a Community Prosperity Preparedness Program

The strategy has a double focus:

Positioning Ontario County as a premium location for the opportunities of today.

Preparing it to take full advantage of the opportunities of tomorrow.

Strengthen the Technology Commercialization Path

In order to seize the opportunities presented by both the Center for Excellence and the Cornell Agriculture and Food Technology Park, Ontario County must be prepared to strengthen the process by which the technological innovations fostered at these two locations are transformed into commercially viable products. The figure below illustrates how that process works.



The process begins with “basic research” that investigates scientific theories and/or issues related to a particular phenomenon or field of inquiry. This evolves into “applied research” which uses the results of basic research to answer questions about particular materials or processes in ways that can be useful for commercial interests. Successful “applied research” culminates in the filing of a patent for a particular product or procedure that has the potential to be converted to a commercial use. CAFTP will feature applied research in much of its activities. The Center for Excellence will involve the next step in the process: commercialization of completed applied research.

This next step in commercialization is to establish “proof of concept.” This means establishing that the particular product or process has commercial viability. For a product, it might mean establishing the fact that it can actually be mass-produced in a cost-effective manner with reasonable quality control. For a patented process, “proof of concept” means establishing that the process can be engineered into a mass production system. Often “seed financing” is required from an angel investor or venture capitalist to underwrite the “proof of concept” process.

Once “proof of concept” has been established, the major technical questions regarding the invention or idea have been answered. The next set of questions about technology commercialization relates to business viability. At this point, the entrepreneur often needs to assemble a business plan to show how the project can be financed and to demonstrate that it will provide a sufficient return to potential investors within a reasonable timeframe. The entrepreneur may also need to create a prospectus to attract the interest of potential investors for “start-up” financing in the range of \$50,000 to \$1 million.

Once start-up financing has been secured, the entrepreneur starts to build capacity to meet demand for his or her product or process. At this point, the enterprise may require “first-stage” financing in the \$500,000 to \$15 million range to enable the company to acquire the production capacity to meet demand. At this point, the technology has been fully commercialized. Success from here on in depends upon market demand and the ability of the new company to meet that demand effectively and economically.

The Ontario County OED/IDA Approach—Serve as a Catalyst, not a Service Provider If a “pipeline” of “seed” stage and “start-up” stage projects can be created, angel and venture capital can be attracted to or developed in the County and/or the Rochester region.

The OED/IDA should begin a systematic effort to reach out to potential seed and start-up stage ventures in the County by creating a small-scale technical assistance program to attract Venture Capital by building a pipeline of credible “seed” and “start-up” stage investments.

- *Provide direct services and/or referral services to entrepreneurs for assistance at the “proof-of-concept” stage through the business planning/prospectus preparation stages.*
- *Create integrated partnerships for technology commercialization services with Cornell University, UR, RIT, High Technology Rochester, the Center for Excellence, etc.*
- *Coordinate closely with Greater Rochester Enterprise and other organizations and consider creating a County “seed capital” fund.*
- *As the pipeline of projects builds, reach out to other sources of Venture Capital in the New York City metropolitan area to develop a “fund of funds.”*

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Keep Building a World-Class Workforce

Along with access to capital, technology-led development depends upon a plentiful supply of skilled labor. But workforce development has become more than job training. Increasingly, attracting and retaining talent is vital for technology-led development. At the same time, the County must support a culture of entrepreneurship that reaches from local grade schools to every aspect of community life.

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Studies have repeatedly identified the importance of a “knowledge workers” in fostering technological innovation. These scientists, designers and engineers look for opportunities to engage in innovative work in their professions in a setting that provides them with cultural, recreational and community amenities. Areas that are

looking to expand their high-technology sectors must ensure that they can provide the kind of quality of life sought by knowledge workers.

Consequently, work force development now consists of two dimensions: direct training and development (particularly for the technicians needed to support “knowledge workers”), and the attraction and retention of those scientists, engineers and designers.

The OED/IDA must continue to promote training, but it has to advocate for quality of life in Ontario County to attract and keep talented “knowledge workers.”

Direct Training of Support Technicians

- *Continue to develop associates degrees for laboratory technicians and information technology workers.*
- *Create industry-specific/firm/specific training through the Workforce Investment Board.*

The OED/IDA must advocate for quality of life in Ontario County to attract and keep talented “knowledge workers.”

- *Build a long-term local supply of “knowledge workers” by encouraging the local school systems to develop math & science enrichment programs at all grade levels.*

Talent Attraction/Retention

- *Maintain an active liaison with the area colleges and universities to recruit recent graduates to Ontario County firms.*
- *Focus on Quality of Life issues to attract the talent required to sustain and grow technology-based companies, including the following initiatives:*

- Encourage the Creation of a Regional Cultural/Tourism Calendar.
- Provide a Diversity of Housing Types throughout the County.
- Promote “wired” *housing* in addition to wired commercial and industrial sites.
- Expand Retail opportunities.
- Foster efforts to market the Area to Potential Residents.
- Encourage entrepreneurial culture

Retain/Expand Mature Industries

As part of the general effort to foster innovation, the OED/IDA should encourage existing firms to undertake innovations in their enterprises. By providing incentives and other assistance (including access to venture capital), the OED/IDA can foster a culture of innovation in all sectors of the Ontario County economy.

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- *Business retention activities should seek to promote workforce development/upgrading to existing firms*
- *Include existing firms in efforts to promote new ventures and innovations in product/production technologies*
- *Monitor existing firms for problems with succession and/or outside acquisition through creation of an strategic research institute at local colleges*

Promote “Quality of Life” Retail Development

An important component of this effort will be to participate in the implementation of the County Retail Sales Tax Strategy to enable the County to maintain a substantial and growing sales tax base, while boosting the talent attraction/ retention effort discussed above.

Implementing the retail strategy will involve:

- *Supporting private sector actions to reposition the Eastview Mall*
- *Encouraging similar planning/revitalization efforts to reposition retailers in downtown/village business districts*
- *Taking measures to preserve and enhance the County’s major natural and recreational amenities* that support its appeal as a tourism destination

An important component of this effort will be to help maintain a substantial and growing sales tax base that helps with talent attraction & retention.

- *Broadening the range of IDA investments to include a few strategic investments to generate sales taxes*
- *Assigning the IDA the responsibility to periodically monitor regional commercial/retail real estate market conditions*

Initiate a Community Prosperity Preparedness Program

Technology-led development requires community initiatives that stimulate the development of housing and neighborhoods to meet the expectations of a highly trained workforce.

In order for Ontario County to keep the companies that will come out of CAFTP and the Center for Excellence in the County, the entire County must be involved in providing competitive environment for growing or attracting these businesses.

Technology-led development requires community initiatives that stimulate the development of appropriate housing and neighborhoods commensurate with the quality and amenity expectations of a

highly trained workforce. Schools and services will also need to be developed at a consistent high quality level. In order to support these projects, the community facilities and infrastructure will need to be world-class.

Again, this will take the OED/IDA beyond the traditional scope of economic development activities into active partnerships with local government and schools. But this work will be essential if the County is to realize and sustain its full potential as a premium location for technology-led development.

Conclusion: The Way to Take Advantage of Change is to Change

If the County wishes to realize the full benefits of Technology-led Development, maintaining the existing structure for economic development service delivery is not an option.

The OED/IDA should identify and develop a new structure for delivering the services required to support technology-led development. This effort should include input from the Board of Supervisors, the Office of Economic Development/Industrial Development Agency, the Workforce Investment Board, Finger Lakes Visitors Connection, the Cornell Agriculture and Food Technology Park, the Center for Excellence for Photonics, among others.

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Our initial analysis has initially identified four options for structuring the delivery of economic development services.

Structural Option 1: Continue with the Existing OED/IDA Structure and Staffing

Under this option, the five focus areas of the strategy would be implemented by the existing staffing of the OED/IDA. In addition to maintaining existing responsibilities, the staff would coordinate their efforts with other County and regional agencies to address all aspects of the five focus areas.

Structural Option 2: Outsource all New Responsibilities to Consultants

Under this option, the OED/IDA staff would continue to carry out its existing responsibilities. New areas of focus would be addressed by retaining consultants to conduct special projects required to implement the strategy. There would be additional costs associated with retaining the range of consultants needed to address the five focus areas. A portion of these costs can be absorbed by ensuring that the existing budget for consultants is tightly focused on the five focus areas.

Structural Option 3: Add Additional OED/IDA Staff

This option would maintain the current OED/IDA structure. However, unlike either of the first two options discussed, this third option would involve significant costs for adding additional staff to take on responsibility for the five major focus areas of the economic development strategy. The expected outcomes are outlined below.

Structural Option 4: Create a Comprehensive Agency for Technology-led Development

Under this option, the County's economic development efforts would be reorganized into a separate not-for-profit corporation that could include within it the existing OED/IDA, the County Workforce Development Office and new functions devoted to technology commercialization, retail development and community prosperity planning. This new agency would also seek a strategic alliance with, the County Tourism Promotion Agency along the lines recommended by the recently completed tourism development strategy.

The trade offs among these options involve costs (e.g., option 1 may cost significantly less than option 4) versus the capacity of each option to fully address the five focus areas (e.g., option 4 may provide the County with much more capacity to take on the new tasks associated with technology-led development). Over the next year, continued analysis will define a recommended configuration for service delivery that strikes the necessary balance between costs of operation and capacity to effectively promote technology-led development.

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