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YORK REGIONAL BIOTECHNOLOGY CLUSTER IMPLEMENTATION PLAN

The Planning and Economic Development Committee recommends the adoption of the recommendations contained in the following report, February 11, 2005, from the Commissioner of Planning and Development Services and the Regional Solicitor:

1. RECOMMENDATIONS

It is recommended that:

1. Council authorize the establishment of a Community Development Corporation for the York Region Biotechnology Convergence Initiative.
2. The Commissioner of Planning and Development Services be appointed on behalf of the Regional Municipality of York to apply for and proceed with the preparation of the necessary articles of incorporation and to take all other necessary steps for the incorporation of the Corporation.
3. The Regional Chair and Clerk be authorized to execute a Memorandum of Understanding with York University to act as Interim Contractual Party with the Ministry of Economic Development and Trade to facilitate interim provincial funding for the operations of the new Corporation.
4. Staff be directed to report back to Regional Council after the new Corporation is established on issues related to the longer term operation of the Corporation as set out in this report.

2. PURPOSE

This report is to provide Council with an update on the activities of the York Regional Biotechnology Cluster Consortium (YRBCC). The report also sets out the organizational structure and governance for a new community development corporation to be established to operationalize the York Region Biotechnology Convergence Project and recommends Council authorization to proceed.

3. BACKGROUND

In June of 2002, the Province of Ontario announced the creation of the Biotechnology Cluster Innovation Program (BCIP). Under this program, the Province would provide financial assistance to communities to develop a regional scale biotechnology cluster. In April 2003, Regional Council approved participation as a member of the York Regional Biotechnology Cluster Consortium (YRBCC). The Consortium was an

informal organization that was established to develop a regional biotechnology innovation plan and secure BCIP funding. The plan would set out a profile of the biotechnology industry within the York Region cluster, and establish a business model to promote new firm attraction, support additional research and development activity, technology commercialization and enterprise formation.

The founding partners of the Consortium were the Region, the Town of Markham, the National Research Council and York University. The consortium also includes 37 partners from local municipal government, education, academic institutions, hospitals, not-for-profit organizations, research associations and the private sector. Dr. Stan Shapson, Vice President of Research and Innovation at York University has acted as the Chair of the Consortium Steering Committee.

In August 2003, the Province of Ontario awarded YRBCC a grant of \$200,000 to undertake the innovation profile and business plan for the cluster. An additional \$175,000 in additional cash and in-kind contributions from the Cluster partners was raised. The Region's cash contribution was \$20,000 in 2003, with in-kind support in terms of staff time and resources.

In broad terms, the goal of the YRBCC is to establish an organization to promote community economic development by facilitating strategic planning and increasing investment and job creation. The long term business plan is to stimulate research, innovation and new firm creation and strengthen the biotechnology and related industry within the York cluster. The organization would also forge linkages with the other southern Ontario technology clusters in Downtown Toronto, Mississauga, Hamilton-Niagara, Kitchener-Waterloo and Peterborough.

Since the last staff report to Committee in February 2004, a consultant was retained by the Consortium to undertake a Strengths, Weaknesses, Opportunities Threats (SWOT) analysis, innovation profile and business plan as Phase One of a process that would establish the basis for the creation of formal Regional Innovation Network. It was important to discern whether there was a "critical mass" of physical, human and intellectual capital to support biotechnology growth under the parameters of the provincial funding program.

The executive summary of this research and analysis, prepared on behalf of the YRBCC by the consultant, is attached as *Attachment 1* to this report.

3.1 Regional Strengths and Assets for Biotechnology Development

3.1.1 A "Convergent" Microclimate

The York Regional Biotechnology Cluster actually extends beyond the geographic boundaries of the Regional Municipality of York and includes the northern portion of the City of Toronto and the southern end of the County of Simcoe and the City of Barrie.

The YRBC is home to a significant number of companies in the biotechnology sector.

- Over 20 companies engaged in pharmaceutical research and production.
- Over 100 companies in the medical and assistive devices field.
- Well over 700 companies in the information and communications technologies.

The proximity of these companies creates a very strong potential for “convergence” in the areas such as bioinformatics, diagnostic imaging and e-health applications.

Convergence occurs when companies collaborate and undertake cross application of research and development that leads to the discovery and introduction of new products and services.

The strength of the manufacturing sector in the Region also provides a significant advantage for new convergent technology companies as new and innovative components can be rapidly prototyped and manufactured close by.

The strength of the Region’s entrepreneurial climate, as evidenced by the significant growth of new enterprise and the emergence of specialized support through legal, accounting and capital providers also supports the evolution and expansion of a vibrant “convergent technologies” cluster within the YRBCC area.

3.1.2 Collaborative Research

The research undertaken during Phase One shows that there is as much R&D spending (over \$280 million annually) on biopharmaceuticals in the YRBCC as there is in the West Montreal area.

In addition, many of the ICT sector companies in the York Cluster have links to global life sciences initiatives (e.g. IBM Markham Software Lab is linked to IBM’s Life Sciences division).

There is research worth over \$140 million annually on Medical and Assistive Technologies being undertaken by regional firms and organizations such as MDS Sciex and the Ontario Rehabilitative Technology Consortium. The Health Technology Exchange (HTX) is located within the YRBCC and provides linkages to medical assistive device companies across North America.

There is a growing network of collaborative research being undertaken by several key members of the YRBCC such as:

- MDS Sciex-York University partnership in mass spectrometry.
- Sunnybrook Women’s College Health Sciences Centre and Phillips Medical Systems in diagnostic imaging.
- York University and IBM in software and computing science.
- Aventis Pasteur and Sunnybrook in cancer vaccine development.
- York University and area hospitals are partnering in the Health Research Network.

In addition, there is a growing core of faculty members and graduate students involved in health sciences research and biotechnology programs at York University, Seneca College and Georgian College.

3.1.3 Other Supporting Assets

The YRBCC area also has a number of other assets to sustain the growth of a convergent biotechnology cluster.

There are over 6,000 acres of employment land available within the cluster area to support new industrial and research facilities.

The telecommunications and transportation systems are well developed and can support the development of high capacity virtual research network and goods movement to major U.S. and world markets.

In addition, there are a number of organizations that provide a range of business support services, and specialized research facilities exist at various public institutions engaged in teaching and research (e.g. York University, Georgian College's Industrial Research and Development Institute, Sunnybrook and Women's College Health Science Centre.)

Perhaps most importantly, the YRBCC includes a highly diverse human resource base with concentrations in information and communications technologies, pharmaceuticals and other natural and applied sciences disciplines. This makes it relatively easier for emerging companies to attract and sustain the cross-section of talent that is required to sustain the growth of these companies.

4. ANALYSIS AND OPTIONS

Based on the research undertaken, the YRBCC submitted a regional innovation profile and business plan to create a formal biotechnology cluster organization to the Provincial Ministry of Economic Development and Trade (MEDT) in June 2004. The proposal seeks funding to support the creation of a new independent organization to encourage, sustain and grow the biotech cluster in the YRBCC area.

4.1 Business Plan for the Cluster

Under the terms of the provincial BCIP initiative, financial support from the Province to support the establishment and growth of a biotechnology cluster organization would require the incorporation of a not-for-profit and arms length organization.

The strategic goals for the cluster would be as follows:

- Establish and sustain a regional innovation network of biotechnology-related companies and organizations.
- Encourage convergence between the information and communications technologies (ICT), biopharmaceutical and medical and assistive devices industries.

- Promote interdisciplinary and cross sectoral research collaboration and product development.
- Develop virtual high speed broadband networks to facilitate research training and information exchange.
- Support and foster the diffusion of new technologies into other industrial, business and the public service sector.
- Support and encourage education training and human resource development within the biotech and related sectors.
- Develop brand awareness and promote the strengths of the cluster for the benefits of the cluster members and the surrounding communities.

4.1.1 Structure and Governance

The receipt of operating funds from the provincial government is contingent on the establishment of an independent not-for-profit corporation that will provide governance and accountability for the actions of the cluster organization. The Province has indicated that the Corporation will be required to have a majority of private sector representatives on the Board of Directors of the organization.

Given the degree of involvement of the Regional Municipality of York and the Town of Markham to date in the establishment of the founding group and guidance in the work of the consortium over the past two years, it is beneficial to have them and other municipal economic development partners as members of the cluster organization.

The proposed best vehicle to accomplish this is the creation of a Community Development Corporation. A municipality may establish a Community Development Corporation under Section 109 of the Municipal Act to undertake community economic development by facilitating and supporting community strategic planning, investment and job creation and other activities consistent with these objectives.

It is recommended that Regional Council authorize the establishment of a Community Development Corporation for the York Region Biotechnology Convergence Initiative.

The objectives of the biotechnology cluster organization identified above are wholly consistent with the objects set out under Section 109 of the Municipal Act.

Moreover, by incorporating the organization as a Community Development Corporation, it permits the Regional Municipality of York, and other area municipalities within the Region, as well as the contiguous municipalities within the boundaries of the York Regional Biotechnology Cluster to become members and participate fully in the activities of the cluster organization, while meeting the requirements of the Province to have the required representation from the private sector.

Staff are recommending that the Commissioner of Planning and Development Services be appointed by Council to apply on behalf of the Regional Municipality of York pursuant to Section 109 of the Municipal Act to incorporate the new organization and that

staff be authorized to proceed with the preparation of the necessary articles of incorporation and all other necessary steps for the incorporation of the new Corporation.

There are precedents for the establishment and successful operation of this type of arms-length Community Development Corporation elsewhere in Ontario. One example is the Innovation Synergy Centre in Markham, which was established to provide business assistance to emerging high growth companies across the GTA. The Innovation Synergy Centre receives funding support from a number of sponsoring organization but is governed and administered as a separate entity.

This form of corporate structure would also limit the liability of each of the members of the corporation, including the Region. Given that the corporation will be involved primarily in planning, promotion and facilitation of initiatives and not capital programs, the liabilities of the corporation would be typical of other not-for-profit corporations.

Governance of the Corporation would be by an independent Board of Directors of up to twelve members. The Directors would be drawn from the members of the corporation with at least 50% of the Directors from the private sector. Each of the four founding consortia members, including the Regional Municipality of York, will have a permanent seat on the Board of Directors. As Council's designate to apply for the incorporation of the new Corporation, the Commissioner of Planning and Development Services would be a founding Director.

The role of the Board would be to provide leadership, strategic direction and policy development to guide the activities of the YRBC organization. The Board would also be responsible for the employment and direction of staff to the Corporation, and would assume responsibility for ensuring sufficient funding to develop, execute and sustain the full development of its mandate.

The Corporation must also have in place comprehensive liability insurance, and an operating budget, human resource requirements and workplan for the initial 4 years of operation that provincial government funding is anticipated.

Staff would ensure that the Corporation is structured to allow the Regional Municipality of York to withdraw from the membership of the organization at some future date should Council so direct.

4.1.2 Next Steps

The Province has indicated that it wishes to expedite the establishment of the new Corporation in order to begin the flow of operating funds prior to the end of the province's current fiscal year (March 31, 2005).

Given the time required for preparation and consideration of this report by Regional Council, and that the incorporation of the new Corporation may take until after the above date to accomplish, staff are recommending an interim arrangement.

It is recommended that the Regional Chair and Clerk be authorized to execute a Memorandum of Understanding (MOU) with York University committing the Region to incorporate and participate in the start-up of a new Community Development Corporation, which will allow for the university to act as the interim contractual party with the province until the Community Development Corporation is set up. This will ensure that funding is in place prior to the formal submission of articles of incorporation and by-laws of the Corporation, and will enable a new Board to be appointed with the certainty that funding is available to start-up.

The new Corporation will be required to demonstrate funding support from its members at least equal to that of the provincial funding. Provincial funding support for the YRBCC has not yet been announced by the Ministry. Staff has included funding in the 2005 Operating Budget to provide continuing funding support from the Region of \$20,000 for the first year of operations of the new Corporation. Subsequent funding support will be subject to Regional Council approval through the budget approval process.

4.2 Relationship to Vision 2026

The establishment, support of and ongoing participation in a new Biotechnology Convergence project is consistent with both Goal 3 “A Vibrant Economy”(promoting and supporting innovation) and Goal 5 “Responding to the Needs of Residents” (enhancing our human resources and partnerships).

The development of a Regional Innovation Network to support Biotechnology and Convergent Technologies directly supports the recently tabled draft Economic Strategy for the Region. The initiative affords the opportunity for the Region to improve service delivery to regional companies in the areas of business support, workforce development and technology commercialization.

The initiative also augments key elements of the Region’s efforts in Human Services planning through the development of enhanced health care and therapeutic technologies. The Biotechnology initiative also buttresses the work of the Region’s E-Government Committee in advancing the development of a One York Region network. The close involvement of the schools, colleges and universities in the initiative also opens up new learning, occupational and research opportunities for students and graduates.

5. FINANCIAL IMPLICATIONS

The Region’s share of the operating costs for the first year of the Biotechnology Cluster Corporation has been included in the proposed 2005 Economic Development Operating Budget.

There will also be in-kind staff-support in respect of the Region's participation in the governance, promotion and networking activities of the new Corporation.

As a prerequisite to maintaining provincial funding support, the Corporation will have to demonstrate ongoing support of other members. This will require some degree of continuing financial support for the program over the next four years. It is recommended that staff be directed to report back to Regional Council later this year that addresses issues related to the longer term operation of the Corporation once the provincial funding has been secured and the new Board has reviewed the business plan for the Biotechnology initiative.

6. LOCAL MUNICIPAL IMPACT

Municipal staff has been involved at both the Steering Committee of the YRBCC and will continue to be involved in the governance of the new Corporation.

Local municipal staff will be involved in the implementation of the workplan of the Biotechnology Cluster and will be encouraged to become members of the Corporation. The activities of the cluster will directly support and augment the economic development initiatives of the area municipalities and lead to new employment opportunities, enhanced competitiveness and a more diverse assessment base of the area municipalities

7. CONCLUSION

Biotechnology and related industries will be one of the fastest growing and most economically important sectors in the next ten years. For York Region to be able to provide a competitive and sustainable environment for new firm creation in this important sector, it is recommended that Regional Council endorse the establishment of a new organization to promote, develop and foster the biotechnology sector in the broader York Region cluster.

It will be important for Council to ensure that this initiative continues to parallel the strategic goals and objectives outlined in the Region's Economic Strategy. Pending Council approval of the recommendations of this report, staff will be reporting back to Council later this year on the composition, budget, and implementation plan of the new York Region Biotechnology Convergence Corporation.

The Senior Management Group has reviewed this report.

(The attachment referred to in this clause is attached to this report.)