

# Report of the International Revenue Generation Taskforce

## Executive Summary

The International Revenue Generation Taskforce was initiated by Dr. Mo Elbestawi, Vice-President of Research and International Affairs to identify broad based international activities for the purpose of generating revenues for the University and establishing McMaster as a world class university for education, research and global outreach. It was further directed to identify specific actions that could be undertaken in the short term to achieve these goals.

Realizing that McMaster cannot be in all places, strategic priority should be given to 5 regions globally. This is not to imply that there is no interest in other regions where McMaster faculty pursue collaborative programs and projects. Rather, given the current level of resources and funding available, our revenues generating activities are more effective if they focus on areas that present concentrations of opportunity, namely BRIC (Brazil, Russia, India, China) countries and the Middle East. The Taskforce concluded that currently China, more specifically the Pearl River Delta Economic Zone (PRDEZ) in the Guangdong province in southern China, stands as the greatest concentrated opportunity for McMaster University to engage in creating an off shore presence, expand its research enterprise and create private sector partnerships. The PRDEZ is projected to have sustained economic growth that outpaces other regions of China while also experiencing a growing demand for higher education. There is indication that areas exist in this highly populous region that are greatly under-served in terms of higher education.

As a working example of a regional strategic partnership, the Taskforce has considered an off-shore campus in partnership with Dongguan University of Technology (DGUT) in the PRDEZ that has potential for a broad base of revenue generating activities. DGUT and the city of Dongguan have offered substantial infrastructure, resources and support. A detailed feasibility study has been recommended after preliminary discussions with the senior executives of the University to move the initiative forward.

The “endgame” of our strategic international partnerships should be to:

- Enhance and spread McMaster’s reputation in research, education and global community involvement;
- Provide a range of opportunities for faculty and graduate students to become leaders in their field;
- Provide revenue to the University and Faculties in order to build capacity and strengthen the institution;
- Create regional platforms to develop further partnerships that utilize our expertise and attract value creation opportunities.

To actualize our vision and goals, the Taskforce has identified and described a broad base of activities:

1. Collaborative Degree and Graduate Programs
2. Off-Shore Branch Campus - Satellite Campus
3. Joint Supervision of Graduate Students
4. In-Region, Short Term Professional Training Programs
5. Summer Institutes at McMaster
6. International Value Creation from McMaster's Research Enterprise:
7. Other Ongoing Initiatives and Efforts (e.g. identifying foreign funding opportunities)

One aspect of these activities that we give particular attention to is the creation of a facilitating mechanism within the Office of International Affairs called MacInc. This entity would provide an identity for our international activities related to value creation opportunities (e.g. commercialization, consultancies, etc.) for faculty. The goals of MacInc. would be to:

- promote the McMaster brand as a global university with global outreach;
- increase our global knowledge and entrepreneurial advantage via a broad based network;
- bring mutual benefit to all parties as cooperation and collaborative ventures emerge and build on our successes;
- explore, identify and track consulting opportunities and match them to interested faculty and graduate students.

We conclude the Dongguan initiative serves as a promising example for achieving the goals of internationalization, value creation and establishing a global presence for the University. The taskforce believes that a strategic regional approach implemented with a careful evaluation of all potential initiatives allows the University to fulfil McMaster's vision "to achieve international distinction for creativity, innovation and excellence" as well as creating a breadth of international opportunities for the institution and faculty.

## **Introduction**

The vision of McMaster University is to achieve international distinction for creativity, innovation and excellence. The role of the university is to respond to new knowledge & emerging opportunities through our research and teaching within and across disciplines. In order to form the leaders of tomorrow, it is imperative that we ensure that, at the institutional level, resources are available to ensure that our vision and the subsequent mission are achieved.

By the very nature of its activities, research and education, universities operate in an international environment. In terms of research, any world-class university has faculty members who publish in world-class journals and present these findings at international conferences and forums. In doing so, the reputation of any world-class university will create its own international presence and build an international reputation.

Aside from research, what does a university, particularly McMaster University, need to do to achieve the stated vision and mission of the institution? There are at least four additional directions that we should pursue. One area is involvement with developing nations in international initiatives that share our experience and expertise. The second is to collaborate strategically in the pursuit of leading edge research that leverages advances in research from other parts of the world. The third is to provide training services that utilize our existing expertise. Finally, we must educate our students in a way that prepares them for the challenges of the globalizing world.

## **International Revenue Generation Taskforce (IRGT) Background**

The Office of International Affairs (OIA) is the international office for McMaster University and reports to the Vice-President, Research and International Affairs. This office co-ordinates, assists with and pro-actively creates opportunities through international outreach that are consistent with the overall mission of the University.

McMaster University has become increasingly involved around the world in exchange agreements, institutional linkages and externally funded international programs concerned with collaborative research, education and human resource development, and, with improving the delivery of services in such sectors as business, environmental protection, community health, engineering and technology development and transfer. The OIA has taken on an expanded international role that seeks to co-ordinate and facilitate McMaster's expertise in a highly complex and changing global environment. When a confluence of opportunity, interest and expertise occurs, we put forward or facilitate proposals on behalf of the University.

At any given time, a wide range of activities are being pursued in training, education, research, development and capacity building initiatives in many parts of the world. In an effort to look at a broader levels of activities, the Vice-President of Research and International Affairs established a committee to examine and provide direction in exploring alternate and innovative efforts that could engage McMaster's faculty in international activities. As clearly articulated at the outset of these discussions, these activities should have a broad and encompassing perspective. It was envisioned that activities should be profitable, or at the very least cost neutral and benefit McMaster's reputation as a world-class university. There should be tangible benefits from the direct activity or partnerships that also foster long-term collaborations.

The **International Revenue Generation Taskforce** was thus mandated by Dr. Mo Elbestawi, Vice-President of Research & International Affairs and Dr. Peter George, President and Vice-Chancellor to consider in broad terms McMaster's options for international revenue generation in the context of actualising our internationalization goals. The taskforce was also directed to conclude its discussion with a plan for specific activities that would achieve McMaster goals in terms of internationalization and international revenue generation. The Terms of Reference were developed and implemented. They are attached for reference in Appendix 1.

The members of the International Revenue Generation Taskforce are:

Doug Barber, Board of Governors

Paul Bates, Faculty of Business, Dean

John Capone, Faculty of Science, Dean

Luke Chan, AVP of International Affairs

Ed Minich, Honorary Governor

Tony Valeri, Senior Advisor on Research Partnerships and Internationalization

## **Funding Landscape**

In the current economic climate, traditional sources of funding continue to be limited with competition increasing from all sectors. McMaster has made in-roads in putting forward a number of proposals and concepts for funding from both traditional and non-traditional sources. The Office of International Affairs has assisted a number of researchers, departments and faculties in developing international projects and seeking funding with various national and international organizations. Initiatives involving programs and specific research projects in Health Sciences, Social Sciences, Humanities, Business, Engineering and Science have been nurtured and/or submitted for funding through the OIA. Examples include ongoing projects in countries such as Haiti and Egypt, while projects in China, India, Russia,

Brazil, the Middle East, sub-Saharan Africa, Cambodia, Bangladesh, Italy, France and Mexico are being pursued currently.

The OIA is constantly exploring opportunities for funding for international projects as well as funds for research partnerships, collaborative programs and student internships. Non-traditional sources such as the National Centre of Excellence's New Initiatives Fund and the Canadian Foundation for Innovation's International Joint Venture Fund have required groups of researchers to compete for funding. The latter includes the Canadian Research Chairs – IRCI Fund of which McMaster recently won 2 of the 8 awarded in Canada.

The challenge for internationalization at McMaster is not unique to McMaster. We are faced with decreasing amounts and sources of international funding for international initiatives at a time when it is essential that any world-class university, like McMaster, establish a strong international presence. An international footprint is no longer a matter of choice, but rather a necessity, if McMaster is intent on maintaining or climbing further towards "*achieving international distinction for creativity, innovation and excellence*" as stated in the University's Vision Statement.

## **Framework for Internationalization and International Revenue Generation**

How will McMaster University define growth? Our strategic documents (Refining Directions: Long Range Planning) indicate that McMaster aims to expand its size and ultimately, enhance its reputation. We wish to be known globally for excellence in research. We have succeeded to a great degree - by any measure, to be a world-class university with an established reputation as a prestigious institution for education and research. Although we have achieved our vision in a general sense, we must continue to seek out new ways to enhance our reputation. The key is to develop specific activities that enhance our prestige, bring opportunities for revenue and do so in a manner, which adheres to our institution's values.

The growth of operations in the Golden Horseshoe area is clearly the core of McMaster's past and current global footprint. However, predicting growth in terms of domestic demand for university education is a matter of speculation. Despite the decline in the age 18-21 demographic, which will begin in 2012, some posit that shifts in the labour market and social values will assure continued growth. As the impact of the current economic crisis reverberates through the global economy, the impact on Canadian higher education remains to be felt. At best, the rate of growth for Canadian universities, McMaster included, will be constrained by numerous factors: intense competition, rising operational costs, faltering local economic growth, dwindling sources of funding and other revenue, limits on institutional

capacity, etc. If we grow locally, we will grow slowly and in an already crowded sector. McMaster's growth in international student and researcher numbers mirrors a global trend for universities in English speaking countries. This trend points to the reality that, if we seek stronger and diversified growth, we are compelled to look outwards to international opportunities. Growth should be reflected in expanded options for:

- academic programming,
- research and development, and
- consultancies and commercialization.

McMaster's international activities should bring growth to our reputation and expertise by:

- enhancing or developing new and innovative programs,
- delivering programs that meet demands in the global higher education market,
- examining areas for commercialization pertinent to McMaster's expertise and innovations,
- strengthening research initiatives that foster strategic partnerships and consultancies.

#### **Desired Outcomes of International Engagement:**

**Our "endgame" should be an international presence that:**

- 1. Enhances and spreads our reputation in research, education and global community involvement;**
- 2. Provides a range of opportunities for faculty and graduate students to become leaders in their field;**
- 3. Provides revenue to the University and Faculties in order to build capacity and strengthen the institution;**
- 4. Creates regional platforms to develop further partnerships that utilize our expertise and attract value creation opportunities.**

#### **Activities for International Revenue Generation**

There are two core activities that have made McMaster University a recognized world-class university: its strong academic programs and its commitment to innovative research. Within these two broad categories a number of specific revenue generating activities provide opportunities to establish footprints in other regions

and create a strong, well-known international brand. We have identified and categorized the activities as follows:

1. Collaborative Degree and Graduate Programs
2. Off-Shore Branch Campus - Satellite Campus
3. Joint Supervision of Graduate Students
4. In-Region, Short Term Professional Training Programs
5. Summer Institutes at McMaster
6. International Value Creation from McMaster's Research Enterprise: "MacInc."
7. Other Ongoing Initiatives and Efforts (e.g. identifying foreign funding opportunities)

Each of these activities is discussed in greater detail in Appendix 2. At this point it is important to note that 6. entails the creation of an entity currently referred to as MacInc. MacInc is envisioned as a facilitating mechanism for commercialization and consultancy opportunities for McMaster faculty; it creates a marketable identity for these services. MacInc. would be instrumental for our ability to expand our regional initiatives. It would exist as a component of OIA's current activities, not as a private service provider. All of the seven activities mentioned above could be engaged with the right regional partner.

## **Prioritizing and Establishing Regional Footprints**

When conducting a scan of international activities at McMaster one can observe that our faculty researchers have been educated from many exceptional institutions around the world. Many continue to be active alumni of these institutions. Others pursue their current research activities with these institutions or establish new relationships with comparable or complementary partners that further their research efforts. International collaboration and presentation of these findings is actively pursued globally. For instance, many of the clinical trial studies, which are the result of multi-centred, global partnerships, are published in world-class journals and have considerable impact around the world. Similarly, there are multi-sectoral initiatives in environmental studies, medical radiation and physics, primary health, mechanical engineering, School of Engineering Practice, Bachelor of Technology Program, business, economics, political science, anthropology, gerontology, School of Social Work, second language acquisition, multimedia communication and many more. Our centres of excellence (provincial and national), including our strategic research centres and institutes, regularly engage in international activities ranging from mini-workshops and conferences, developing modulated educational sessions, developing capacity overseas, encouraging student exchanges at the graduate level, sharing research and applying for international grants.

Much of McMaster's international engagement is ad-hoc or driven by calls for proposals. A more proactive, strategic exploration which correlates McMaster's strengths in research and education with identified global economic "hot-zones" is the aim of the OIA. The need to focus on particular regions is necessitated by the simple fact that initial resources and capacity for higher intensity engagement is limited. The omission of a region is not to say that McMaster is not interested in that region, but that our initial focus, given financial resources and capacity limitations, require that institutionally we focus on collaborative partnerships with the most intensive and strategic potential. We need to engage in activities that can sustain growth and be a part of a long-term commitment to partnerships that will foster McMaster's core business of strong academic programs and innovative research. Additionally, given the globalization of societies and markets, the internationalization goals of the University must consider international commercialization opportunities of this expertise and research. Commercialization fits well with McMaster's commitment to its Innovation Park and will satisfy demands for business-type relations and partnerships that are being requested of our faculty and Institution generally.

As stated earlier, there are limited resources and capacity for McMaster University: Simply put, we can't be every where, therefore, we must strategize and prioritize regions. One criterion should be McMaster's level of expertise, commitment and partnership in a given region. Secondly, it is important that we select a region where McMaster will get the best and most sustainable outcome for its investment and activity. Given the current initiatives that are in play at McMaster along with various countries' economic prospects, the emerging economies of the BRIC (Brazil, Russia, India and China) countries and the Middle East have been identified as the most promising areas to engage in the types of activities that we are proposing. A more detailed view of McMaster's current international involvement and activities in these countries can be found in Appendix 3.

If we are committed to achieving our international goals – enhancing our world-class status and creating a sustained international presence – we must choose one of the above areas as a starting point. The IRGT has concluded that China presents the optimal starting place. The following regional focus provides insight into how the above mentioned activities may be implemented effectively in a geographic area that has robust potential for partnerships and achieving our greater goals for internationalization.

### **Pursuing Opportunities: Pearl River Delta Economic Zone (PRDEZ)**

Much of China's economic development has focussed on Yangtze River Delta (YRD) area (e.g. Shanghai, Suzhou, Nanjing, and Ningbo) and the Beijing region. There has also been substantial activity in the Pearl River Delta (e.g. Hong Kong, Shenzhen, Guangzhou, Macau) that contains some of the first Special Economic Zones (SEZs) in China. In what may be

case of historical timing, the rise of interest in overseas university partnership has coincided with the rise of the YRD region that occurred subsequent to the rise of the PRDEZ region. Additionally, interest in the YRD and Beijing regions coincides with their proximity to the traditionally prestigious universities such as Peking University, Nanjing University and Fudan University. Both SEZs have far exceeded the national GDP growth rate, with the PRDEZ retaining the highest GDP growth (see Table 1).

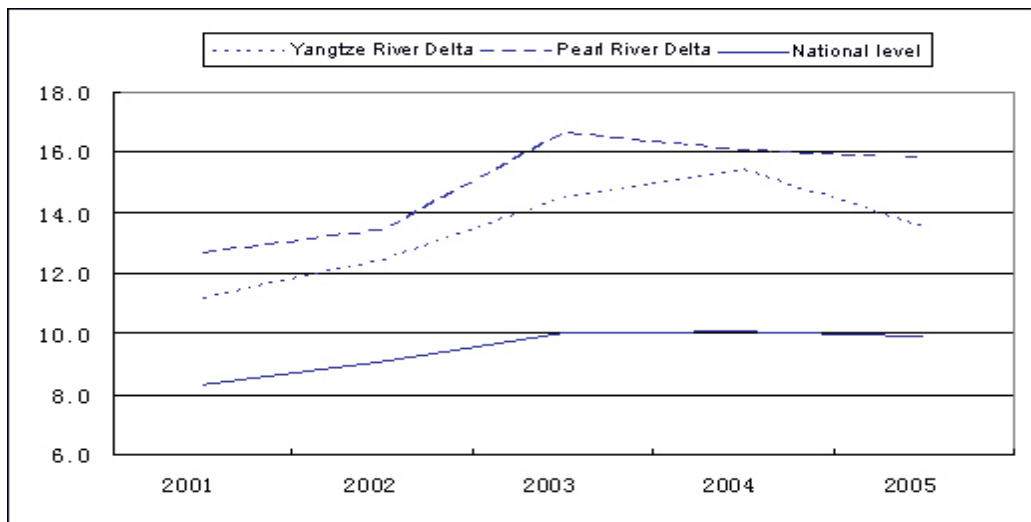


table 1: comparison of GDP growth rate between YRD, PRD and China national

While growth for both regions is impressive, from a strategic perspective, the PRDEZ is far less developed in terms of foreign university initiatives and research partnerships. While China overall holds the greatest potential for university partnerships of any country in the world at this time, if we look more closely within China, it emerges that the Pearl River Delta area holds the greatest concentration of opportunities.

The Pearl River Delta region, due to its proximity to Hong Kong, contained some the earliest designated SEZs, such as Shenzhen (1980) and Guangzhou (1984). The Pearl River Delta is located in the Guangdong province in southern China and includes major commercial and industrial centres such as Hong Kong, Shenzhen, Dongguan, Guangzhou, Foshan, Zongshan and Macao.

The success of the SEZs through the 1980's and 90's eventually led China to broaden the economic zones. In the case of the SEZs in the Pearl River Delta area, the astounding success led



to the entire delta being designated as the Pearl River Delta Economic Zone. It now includes major urban centres such as Shenzhen, Dongguan, Guangzhou and Foshan. The Pearl River Delta area has become the wealthiest and among the most densely industrialized and commercialized areas in China. It was estimated in 2001 that over 5% of the entire world's goods were made in the PRD. The current manufacturing and production operations in the city of Dongguan for example include Fortune 500 companies such as General Electric, General Motors, Dupont, Nokia, Canon, Xerox, Phillips, Samsung, Nestle, Coca-Cola, Pepsico and Walmart.

## **Permission to Dream: A Proposal**

As a working example of implementing a regional strategy we can consider a proposal currently under consideration from a university in the PRDEZ. McMaster University has been approached by Dongguan University of Technology (DGUT) to develop an offshore campus in the Guangdong Province in the city of Dongguan, a city that has one university for a population of 6,900,000. Building on existing partnerships, both McMaster University and Dongguan University of Technology propose the establishment of a Guangdong (Dongguan) McMaster University Campus (GDMUC) in the Guangdong Province. To further establish the viability of this particular initiative, a feasibility study has been initiated after preliminary discussions with the senior executives of the University.

The new collaborative campus proposes as a starting point a 4-year undergraduate degree program during its initial development or Phase I stage.

Phase II, will explore, implement and facilitate the development of competitive graduate programs and where appropriate research institutes and centers. Commitment to research and graduate education has been discussed and is currently reflected in the proposal.

Phase III would be the exploration and implementation of regional expansion.

Current proposed development of programs and partnership arrangements could include:

Develop, implement and deliver programs leading to the Bachelor of Technology (B.Tech.) Degree; Three streams will be developed and offered. These include; 1. Automotive and Vehicle Technology; 2. Biotechnology; 3. Process Automation Technology;

1. Develop, implement and deliver programs leading to a Diploma in Economics and Public Policy;
2. Develop, implement and deliver programs leading to a Certificate or Diploma in Business and Communications;
3. Develop, implement and deliver ESL programs to ensure students have appropriate language proficiency required to meet the degree program requirements or participating in other programs implemented under this initiative.

4. Explore, develop and implement a 2+2 arrangement whereby students enrolled in the GDMUC may be admissible to finish their approved program at the McMaster campus.

### **MacInc. and a Regional Strategy**

Given that the PRDEZ is a manufacturing hot-zone in China, the Guangdong (Dongguan) McMaster University Campus has considerable opportunities for outreach programs as outlined in the proposal. This can include:

- executive training,
- skills development,
- consultancies,
- taking products to market,
- commercialization of IP,
- developing links between industry in the PRDEZ with McMaster's Innovation Park,
- acting as a conduit for Chinese business to open branch operations in Canada,
- identify and counsel on opportunities for Canadian SMEs to operate in China,
- engaging our research institutes and centres with a variety of partners.

The establishment of a Mac Inc. entity would work well to respond quickly, efficiently and provide considerable flexibility. The potential for generating revenues and research opportunities for faculty through these consultancies can be substantial

## **Conclusion**

The International Revenue Generating Taskforce recognizes that there is considerable engagement in international activities and encourages faculty members to consider focussing some of their research investment in the regions or fields being proposed and to consolidate their research activities to broaden our international presence. Some of these have been identified in the Compendium of International Activities put together by the Provost's International Activities Ad hoc Committee. The International Revenue Generating Taskforce was charged with identifying specific activities that McMaster as an institution should explore as a means to increase revenues to the institution and provide additional means to enhance our reputation as a world-class institution. The creation of a Guangdong (Dongguan) McMaster University Campus, in one of the most economically vibrant regions of the world in a time when the regional demand for higher education will boom, could manifest many of the suggestions outlined in this report. Is McMaster motivated to pursue and prepared to invest in this venture is the question being posed to the University. As stated recently by Maurice Strong, former UN Envoy for the Secretary General, "if you don't have a China strategy, you don't have a strategy". This is relevant in the university context and more so in the current economic environment. The Guangdong (Dongguan) McMaster University Campus has been identified as a partnership with the strategic positioning that can make it an exemplar of international partnerships. This initiative could potentially begin implementation in a short term timeframe.