

# **Institute for Management and Innovation**

**PROPOSAL FOR AN EDU:B AT THE UNIVERSITY OF TORONTO MISSISSAUGA**

## **SUMMARY OF THE PROPOSED UNIT**

The University of Toronto Mississauga (UTM) is proposing a new Extra Departmental Unit (EDU):B, named the Institute for Management and Innovation (IMI). UTM currently offers undergraduate programs in commerce and management, and interdisciplinary professional graduate programs combining the study of a particular science, profession, or industrial sector with that of management. IMI will provide an academic platform to foster close interactions and sharing of expertise between the faculty, staff and students in these programs, offering some of those programs, while supporting and enriching others. It will encourage implementation at the undergraduate level of pedagogical values of and experiential learning activities carried out in the graduate programs at UTM and will provide new opportunities, such as combined programs, to facilitate movement from undergraduate into graduate programs. IMI will provide new means for a range of disciplines to work together to produce mission-focussed managers and future leaders with a combination of management skills and depth in their chosen field of science, technology and the professions, all closely linked to the external community.

Faculty will hold cross-appointments (predominantly non-budgetary) if they teach in the interdisciplinary undergraduate or graduate programs associated with IMI, and/or play a key role in the interdisciplinary research programs it fosters, and have a significant commitment to an interdisciplinary approach to the study of management. This will include many of the current faculty in the Departments of Economics, and Management at UTM, as well as many of the faculty who teach in professional masters programs offered at UTM.

IMI will advance both research about and teaching of the management of scientific, technological and professional enterprises. It will educate innovators with expertise and understanding that bring together management, professional, scientific, and sector-specific knowledge, uniquely situated to guide decisions based upon the latest knowledge required to innovate within their sector of the economy. IMI's graduates will become leaders in their sectors of the economy.

## **DESCRIPTION OF THE UNIT**

### **Mandate**

The proposed IMI will have educational and research mandates:

- By offering or providing support to sector-specific, cross-disciplinary, and experiential programs that combine the study of a science, profession or industrial sector with management, it will foster the development of mission-focussed graduates who will be able to contribute innovatively, and to provide innovation in, activities that depend on that science, profession, or industrial sector.
- It will foster research and scholarship in areas relevant to the programs with which it is associated, in particular (but not exclusively) on the role of innovation and management in the development of the sciences, industrial sectors, and professions associated with its teaching activities.

### **Rationale: What does IMI allow the University to do?**

The University of Toronto (U of T) is typically placed by academic rating organizations in the top 25 of the world's universities. IMI will provide programming that is intended to reflect this high standing. It will do so by educating future leaders who combine in-depth understanding of a

science, technology or a profession with management education. This approach complements activities already in place at U of T, most notably the Rotman School of Management's excellent MBA program. IMI's focus furthermore addresses some of the key recommendations that have been made by the Institute for Competitiveness and Prosperity, a not-for-profit organization that deepens public understanding of macro and microeconomic factors behind Ontario's economic progress (<http://www.competeprosper.ca/index.php>), and by John Manley and Paul Lucas in the "Action Plan for Prosperity".<sup>1</sup>

The University of Toronto has set itself a mission of impact on the global community; the institutional Strategic Research Plan<sup>2</sup> provides examples of what this means in practice. U of T excels in the production of creative ideas with major impact in areas such as health/medicine, engineering, materials, and information technologies. The institution is building its "innovation and partnerships" strategy,<sup>3</sup> and is enthusiastic about taking a greater role in community impact as well as in addressing the world's problems. U of T is determined to move creative ideas into innovations, and enhance programming to teach innovation across a broad range of disciplines.

The University of Toronto has already invested in the MaRS Discovery District, MaRS Innovation, and has formed an innovation hub in the Banting and Best building (Banting and Best Centre for Innovation and Entrepreneurship), all of these initiatives serving as nodes for connection into the commercialization community. IMI would add a significant capability in education for the University. Through its teaching and research programs it would expand on these previous investments by recognizing that innovation in policy, processes and communication can have enormous impact just as can technical innovation for commercialization. It will do this by building on a number of UTM's capabilities.

A variety of professional graduate programs are located at UTM, some within the ambit of UTM's Professional Graduate Program Centre (PGPC) and some not (p. 8). All have a common theme of tying professions to cognate elements of management and leadership. These successful established programs represent the front-line in teaching of innovation for professions. Of clear value and impact in the community are experiential learning activities arranged by the professional graduate programs. These opportunities have stimulated innovations from UTM students that have been taken up by businesses and government, and include operational strategies, policies, partnerships, as well as technologies. The lessons that have been learned from offering these programs will inform the core of IMI's educational programs. By providing a structure that develops synergies between the programs it offers and the programs it supports, IMI will allow the programs to learn from each other and grow in effectiveness and community impact.

Community interest in aligning with opportunities in the education sector is clearly reflected in the strategic plans of the City of Mississauga,<sup>4</sup> which specifically point to partnerships with post-secondary institutions to drive a "talent-based" innovation agenda. The City of Mississauga and the Region of Peel have a strong and close association with UTM. UTM is often called upon to demonstrate leadership in development of innovations for the community. One example is the

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<sup>1</sup>[http://www.acctcanada.ca/Documents/Coalition\\_for\\_Innovation\\_2010\\_report.pdf](http://www.acctcanada.ca/Documents/Coalition_for_Innovation_2010_report.pdf); Oct 2010.

<sup>2</sup> <http://www.research.utoronto.ca/strategic-initiatives/strategic-research-plan/>

<sup>3</sup> <http://www.research.utoronto.ca/innovations-partnerships/>

<sup>4</sup> [http://www.mississauga.ca/file/COM/StrategicPlan\\_Web\\_04\\_22\\_2009.pdf](http://www.mississauga.ca/file/COM/StrategicPlan_Web_04_22_2009.pdf)

World Health Organization's "Mississauga Model",<sup>5</sup> with credibility firmly established by The City of Mississauga winning the World Leadership Award Gold Medal for Health (in international competition with 400 municipalities from around the world) for the interactions and outcomes that have developed between the City and UTM. The positioning of IMI as an initiative of significance that reaches beyond the local community is also clear. The Ontario Ministry of Economic Development and Innovation (MEDI) is promoting Ontario as a globally competitive centre for innovation, and the federal government has invested in the Southern Ontario Regional Development Fund (FedDev) to stimulate economic development through innovation. UTM has already been integral to the attraction of investment from MEDI and FedDev by lending support to external partners such as the Research Innovation Commercialization Centre (RICC; see p. 12) and Advantage Mississauga; partners that will support IMI through provision of talent in the classroom and experiential learning opportunities.

### **Mission-focussed managers**

Mission-focussed managers are graduates who have an education in their chosen scientific or technological discipline or profession and have the capacity to manage and introduce innovations to operations that depend on that discipline or profession. Building upon the strength of existing graduate programs such as the Master of Biotechnology (MBiotech), Master of Management & Professional Accounting (MMPA), and the Master of Management Innovation (MMI), the Institute's programs and research activities will eschew the study of management as a one-size-fits-all education; focusing instead on the needs of particular industries and professions, in an environment that stresses experiential learning within the context of those industries and professions. UTM is large enough to support world-class scholarship across a broad range of academic disciplines, but small enough for these scholars to collaborate readily with each other. The campus provides an ideal environment for nurturing further innovative educational programs that combine the sciences and professions with the study of management at both the graduate and undergraduate levels in established areas such as engineering and health sciences or in emerging areas such as sustainability (p. 9).

The Institute's students will learn in a context that brings together cutting-edge research with exposure to real-world demands and innovative solutions. With an education both in their science, technology or profession *and* in management, they will be both inventors (producers of ideas) and innovators (implementers of ideas). Leadership in these scientific and economic sectors comprises more than just being well-trained in the management arts: it requires a deep understanding of the sectors themselves, and these are the kinds of mission-focussed managers to be educated by IMI's suite of programs.

### **Experiential management education**

Key to these programs is the concept of experiential education in which students combine classroom and laboratory teaching with practical experience. This experience can vary from projects lasting several weeks, to internships lasting up to one year. Working under the supervision of their faculty, students learn the application of their science, technology or profession in a real-world environment. UTM's location in the City of Mississauga is ideal for programs of this nature (p. 10).

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<sup>5</sup> [http://www.mississauga.ca/file/COM/The\\_Mississauga\\_Model.pdf](http://www.mississauga.ca/file/COM/The_Mississauga_Model.pdf)

## **Programs associated with IMI**

IMI will be the unit responsible for a number of programs both graduate and undergraduate, and it will play a key role in providing support to others. The common factor to the programs associated with IMI will be their blending of the study of a particular science, industrial sector or profession with that of its management.

We describe below (p. 8) in greater detail the nature of each program's association with IMI. Initially IMI will offer the Master of Biotechnology (MBiotech), Master of Management and Professional Accounting (MMPA), Diploma in Investigative and Forensic Accounting (DIFA), and provide administrative support to the undergraduate Commerce programs. It will develop new interdisciplinary Bachelor of Business Administration (BBA) programs involving, for example, UTM's Departments of Biology and Chemical and Physical Sciences. The Master of Management of Innovation (MMI), Master of Science in Biomedical Communications (MScBMC), and the proposed Master of Science in Sustainability Management (MScSM; provincial approval pending) programs will be supported by IMI in ways appropriate to their needs (p. 8 ff).

## **Leading-edge transdisciplinary research**

Research and scholarship will drive the rich scientific, technological, professional and managerial education that students will receive through IMI. As IMI evolves it will add to its existing cross-appointed faculty with new cross-appointed hires including junior and more senior scholars. In addition, students will be taught by internationally-recognized visiting scholars. IMI will fundraise to support prestigious fellowships to enable visiting scholars and ground-breaking innovators to spend time at the Institute either through presentations at seminars and workshops, or for short stays that combine such offerings with more informal opportunities for discussion with students and faculty associates with IMI. It will also provide opportunities for faculty and graduate students from the University to work together with scholars from their own and other disciplines to further their scholarly goals and the Institute's mission.

## **Future growth**

UTM has plans for growth both at undergraduate and graduate levels and within IMI-related activities, mainly by expanding existing programs. However, as noted below (p. 8), a limited number of new programs are currently pending approval or being planned at the graduate level. This will generate growth in faculty in the units associated with IMI from which IMI faculty will be cross-appointed, and in the staff necessary to support this growth. Resources to support this expansion will come partly from the enrolment growth, and partly from fund-raising.

## **ESTABLISHMENT**

### **Support indicated**

Support for IMI comes from three main sources: (a) UTM, (b) Divisions and Departments whose faculty might wish to be cross-appointed to IMI or whose support is essential for IMI's success, and (c) programs that will be associated with IMI.

*UTM:* UTM views IMI as a key component of its growth strategy. UTM will provide the resources required to launch IMI (p. 18) and to support its growth.

*Divisions and Departments:* The units listed below have reviewed this proposal. All have indicated that they are supportive of IMI's mandate.

The first two are not expected to play a direct role in IMI's activities, although some of their faculty will hold non-budgetary cross-appointments to it, as will faculty of most of the remaining units (identified in Figure 1 as "partner departments"). The connections of the partner units with IMI will initially be via the programs listed below. Except where noted, these connections arise because the program's academic leadership hold their primary appointment(s) within the partner unit, and/or faculty from that unit teach in the program that is identified (see p. 8 ff for more information on the nature of each collaboration).

- Joseph L. Rotman School of Management, U of T
- Department of Management, University of Toronto Scarborough (UTSC)
- Department of Biology, UTM: MBIotech, MScBMC
- Department of Chemical and Physical Sciences, UTM: MBIotech
- Department of Geography, UTM: MScSM (pending provincial approval)
- Department of Economics, UTM: Undergraduate Commerce Programs
- Department of Management, UTM: Undergraduate Commerce Programs, MMPA, DIFA, MMI
- Hazel McCallion Academic Learning Centre, UTM: Li Koon Chun Finance Learning Centre (p. 11)
- Professional Graduate Program Centre: the graduate unit responsible for MBIotech, MMPA and DIFA (as noted on p. 8)

*Programs:* The academic directors of the following programs have reviewed this proposal and indicated that they look forward to the relationships described below (p. 8) that they will have with IMI:

- MMPA
- DIFA
- MMI
- MScSM (provincial approval pending)
- MBIotech
- MScBMC
- Undergraduate Commerce Programs

#### **Timeline and effective dates:**

- Fall 2012: UTM Governance cycle
  - Resource Planning and Priorities Committee, November 26<sup>th</sup>, 2012
  - Academic Affairs Committee, November 27<sup>th</sup>, 2012
  - Erindale College Council, December 6<sup>th</sup>, 2012
- Winter, 2013: U of T Governing Council Boards & Committees Cycle 3
- July 1<sup>st</sup>, 2013: Establishment of IMI.

#### **DIRECTOR**

IMI will be headed by a Director, who will report to UTM's Vice Principal Academic and Dean, or designate, and hold a minority budgetary cross-appointment to IMI. He or she will be

appointed in accordance with the *Policy on Appointment of Academic Administrators*. Initially, on establishment of IMI, an Interim Director will be appointed for a limited term to oversee its implementation. Thereafter, it is anticipated that the permanent position will be filled as a result of an international search, probably conducted in 2014-15. The Director will have his or her primary appointment in another academic unit at UTM.

IMI's Director will be a scholar of international repute who combines a profound understanding of the world of management education and scholarship with a proven ability to work effectively both with academic disciplines outside the world of management education and with the world of practice. The Director's responsibilities will include:

- leading a process of community-building that will bring together the teaching and research interests of IMI's faculty, encouraging the development of new cross-disciplinary programs of teaching and research
- building links and engagement with relevant community stakeholders, forming and working with an Advisory Board (see p. 7)
- taking the role of Graduate Chair for the graduate programs (to begin, MMPA and DIFA) offered by IMI
- assuming responsibility supporting or offering undergraduate programs associated with IMI
- creating and managing the administrative structures necessary to support IMI's programs
- leading a program of outreach and fundraising

## **ORGANIZATION INCLUDING REPORTING AUTHORITY AND GOVERNANCE**

The Director will report to UTM's Vice Principal Academic and Academic Dean, although graduate matters may be delegated by the Dean to the Vice Dean Graduate, and undergraduate matters to the Vice Dean, Undergraduate. For graduate programs, collaborations will be managed in conjunction with either UTM's Vice Dean, Graduate, or the graduate unit responsible for the program in question. Each program will have its own director and a small staff group (with staffing levels to begin at the level they are currently), although some administrative functions may be shared where it proves feasible and advantageous to do so. An Advisory Board comprising senior figures from the academic world, participating academic units, the Dean, faculty, alumni, industry, the Mississauga community and the Region of Peel, and senior administrative staff will provide the Director with strategic guidance.

It is anticipated that, with enrolment growth and success in fundraising, the Director will eventually be assisted by up to three Associate Directors, responsible respectively for graduate programs, undergraduate programs, and research and academic resources. Figure 1 shows a schematic of the organizational and reporting structure for IMI, including administrative staff groups led by a Director Operations. It is anticipated that IMI will, with growth and exploration of opportunities for synergies, appoint some additional staff members with responsibility to administer activities common to all programs.

## TEACHING / PROGRAMS

The educational programs falling within IMI's ambit will comprise a combination of existing and new programs. Some existing programs, especially at the undergraduate level, are planned to grow over the next few years to respond to increasing demand, while others will maintain current enrolments. Applications from Ontario high schools for UTM's Management programs have increased by over 35% since 2004 and currently stand at just under 6800 annually. While applications to MBA programs worldwide have been declining over the past three years, those to UTM's management programs have been increasing, most strikingly for the MMPA, which has gone up by nearly 70% since 2009, reflecting a worldwide trend towards more specialized graduate management education that embraces a sector-specific approach.

### Graduate activities

#### *Professional Masters Programs*

As noted above (p. 5), some programs will be the responsibility of IMI, while others will be supported by it. In all cases, however, IMI will provide a framework for integrating the teaching of Management with the discipline-, sector- or profession-specific teaching that makes the program distinctive, and explore synergies between programs in both academic delivery and administration. IMI will also support these programs in the areas of experiential learning and helping forge closer connections to the external communities relevant to each program. As well, we expect new programs to be developed and offered by IMI.

The current list of professional masters programs that will be associated with IMI comprises:

- *Master of Biotechnology (MBiotech), Master of Management & Professional Accounting (MMPA) and Diploma in Investigative and Forensic Accounting (DIFA)*: The PGPC is currently the graduate unit responsible for these programs; this function will be assumed by IMI.
- *Master of Management of Innovation (MMI)*: The Institute for Health Policy, Management and Evaluation (IHPME) is the graduate unit responsible for this program. Its core classes are offered at UTM by Department of Management faculty, and the program director, support staff, and budget are located at UTM. IMI will assume the current administrative tasks carried out at UTM.
- *Master of Science in Biomedical Communications (MScBMC)*: This is the responsibility of the Faculty of Medicine's Institute of Medical Science. IMI will enhance the student experience by offering appropriate management education.
- *Master of Science in Sustainability Management (MScSM, currently awaiting Provincial approval)*: This will be the responsibility of the PGPC in association with the Department of Geography; IMI will be responsible for coordinating its management teaching.<sup>6</sup>

In addition, a more broadly-conceived Master of Management is currently being discussed, with individual streams directed towards management in particular professions, sciences, or industrial sectors. Should it go forward, it will be offered by IMI, and comprise a common core of management topics, after which students will choose an area of specialization. The latter will

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<sup>6</sup> The Department of Geography is currently reviewing its involvement with graduate activities. It may well be that the MScSM becomes a graduate offering of IMI when the situation on both sides (Geography and IMI) is clearer.



include both specialized courses in that area and its management, and experiential learning in the form of projects and internships. In addition, there have been discussions about the creation of a Masters program on the strategic management of cities and regions, in collaboration with UTM's Department of Political Science.

### ***Research Degrees***

The planned growth in research faculty will greatly enhance the opportunities for student research experience within IMI. In the long term there may be an opportunity to launch a stream within the doctoral program of the University's Graduate Department of Management, focused on Innovation Management.

A Professional Certificate Program has been proposed, initially for chemistry and biology doctoral students (although there is no reason to limit it to these disciplines) which would complement their research degrees with education in management, finance, and business development. It would prepare them well for successful careers in laboratories of their particular science, industry, entrepreneurship, and consulting. At the conclusion of the courses, the student would receive a certificate of completion from the School of Continuing Studies. IMI will, too, support activities such as *Venture*,<sup>7</sup> an initiative taken by University of Toronto graduate students to establish their career goals and provide them with valuable career development experiences.

A further long-term ambition is to introduce a research Masters Degree in order to increase the presence of research students within the Institute and build its research capacity.

### **Undergraduate Activities**

The current UTM undergraduate programs that will be supported by IMI include:

- The *Commerce Specialist* programs, which include programs in Accounting, Finance, Marketing, and Human Resource Management as well as a non-specialized program, all leading to the BCom.
- The *Commerce Major* program, leading to the HBA.

The Commerce programs are currently offered jointly by UTM's Departments of Economics and Management; IMI will provide administrative support to these departments and the Director of the Commerce Programs whereby academic oversight and curricular change, if any, will continue through UTM's existing curricular review structure and will involve consultation with all faculty teaching within the programs. The Commerce programs fit well with the IMI vision, drawing together as they do two of UTM's largest departments and being directed at specific professional or industrial sectors. Commerce degrees have proven extraordinarily durable in Canada, and there are no signs of their attraction fading. As IMI's faculty grows, the programs' enrolments are expected also to grow.

The Management Specialist program leading to the BBA will remain as an offering of the Department of Management, as will the Major Program in Management. However, IMI will promote development of joint programs and other interdisciplinary initiatives. Examples of potential offerings include programs leading to a BBA combining management with, for example, sustainability, biotechnology, and industrial relations. Discussions are also ongoing

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<sup>7</sup> <http://www.venture-connections.ca/>

with the Faculty of Applied Science & Engineering about possible undergraduate collaborations on a substantial scale.

By cross-listing carefully-selected graduate courses with undergraduate courses it will be possible for advanced undergraduate students to experience some exposure to graduate-level teaching, and perhaps research, in their programs.

IMI, then, will both nurture the development of creative new interdisciplinary undergraduate programs, and provide an environment that will enhance opportunities for experiential learning.

### **Experiential learning**

Experiential learning already has a strong presence in UTM's undergraduate and graduate programs. Currently much – but not all – of its oversight is handled by individual programs, although support is also provided by the Office of the Dean as well as the campus Experiential Education Office. IMI will enhance the experiential learning activities of its programs, taking advantage of the breadth of disciplines associated with IMI, its industrial partners, and its location in Mississauga, with a business community that is recognized as being one of the strongest in Canada with breadth and depth in the technology, life science, and service/financial sectors. It will exploit UTM's close links with Mississauga's Research Innovation Commercialization Centre (RICC), MaRS, Advantage Mississauga, and with corporate initiatives to establish commercialization facilities in Mississauga such as in the Sheridan Science and Technology Park (geographically adjacent to UTM). Examples of different forms of experiential learning include:

- *Internships*: Programs will offer the chance to work in external organizations for credit, under academic supervision. Students spend an extended amount of time – either continuously over a period of months, or for a given number of days per week while taking other courses – working for an employer, sometimes for remuneration and sometimes not. Already a key feature of most of IMI's professional masters programs and all of its undergraduate commerce and management programs, there is a possibility of internships to grow in significance as a way of providing students with employment-based experience in the application of their science, technology or profession.
- *Project-based learning*: Projects involving fieldwork, typically team-based, are already built into the curriculum of IMI's professional masters and undergraduate courses, and will increasingly be so. They draw together classroom learning with its application in practical settings. They differ from internships in that they form part of a particular course. For example, in a course on entrepreneurship students might work in groups with entrepreneurs – perhaps members of their own team working on a business idea for their post-university life, faculty members considering commercializing their research, or external entrepreneurs developing a business concept – to create a business plan for the entrepreneur. This work would include, for example, conducting necessary market research, investigating sources of funding, devising an organizational structure for the business and a plan for hiring the people to populate it, examining sources of risk, and developing a plan for establishing the business and growing it.
- *Research Opportunity Program (ROP)*: Undergraduate students will have opportunities to work with faculty members on research projects for credit. IMI's research activities, which will expand the current range from those happening currently within the

Department of Management to the broader interdisciplinary programs described in the previous section, will provide a greatly enhanced and enriched set of ROP offerings for UTM's undergraduate students.

- *Li Koon Chun Finance Learning Centre (FLC)*: The FLC, to be moved from the Hazel McCallion Academic Learning Centre (HMALC) to the Kaneff Centre as part of the current Kaneff expansion project, provides workstations with access to databases and database clients used in the financial services industry. It provides a realistic environment in which students can experience the dynamics of the markets, and professional tools for them to work with the data that will form the backdrop of their working lives. The HMALC will serve as a partner in realizing the vision of IMI, providing the connective tissue for academic support and experiential learning that will strongly contribute to student success while at UTM and in preparation for their success in the workplace. The FLC will continue to be directed by a professional librarian reporting to UTM's Chief Librarian, although IMI will assume responsibility for the physical facilities.

## RESEARCH

IMI will have a *general* and a more *specific* research mandate.

The *general* mandate will flow from research and scholarship that is aligned with IMI's theme, i.e. the role of innovation and management in the development of the sciences, industrial sectors, and professions associated with its teaching activities. As IMI grows, new endowed Chairs associated with it will add specific foci for research. More specifically, the interest is to align with the aspirations of the University's Strategic Research Plan in addressing major problems facing Canada and the world, such as sustainability of the health care system, sustainability of the environment and energy, and the sustainability of an innovation system. A new paradigm in research that is driven by student teams associated with professional graduate programs will become ubiquitous where such teams take on projects of potential commercial relevance to stimulate interests by the external community (now successfully embedded as part of MBiotech activities).

The more *specific* mandate flows from IMI's aim to become one of the world's leading arenas for research on the management of innovation. IMI will offer a unique multidisciplinary environment that will combine skills and knowledge across various units of the University of Toronto to produce cutting edge research and to train the next generation of Canadian leaders in innovation management. IMI intends to attract additional funding both through private and public sources for chairs and through granting agencies to establish research networks in the management of innovation. IMI graduate students will be offered wide-ranging opportunities for interaction with technology management and innovation experts. These activities will include internships, conferences and other avenues for practical experience that will encourage students to think critically and creatively about innovation and technology management.

IMI will organize workshops and conferences with the objective of bringing together leading scholars from the many disciplines associated with the Institute. For example (in connection with its *specific* mandate), these events will exchange research on technology management. The topics of interest here include, but are not limited to, the economics of innovation, the

commercialization of technology developed from industrial or university research, the design of intellectual property, and the regulatory factors in technology development.

Finally, IMI will encourage research that responds to joint opportunities between the external community and academic partners. In some cases these projects will directly focus on the stimulation of economic outcomes and intellectual property, and in others the work will be focused towards policy development. Interaction with commercialization units within the community, with the Innovations and Partnerships Office at the University of Toronto, with the RICC, Advantage Mississauga, and with MaRS Innovation will be significant elements that contribute support of such research.

## **OUTREACH ACTIVITIES**

Outreach will be to a variety of audiences, both scholarly and practitioner.

### **Seminars, conferences**

An important function of IMI will be to organize seminars and conferences, both scholarly and for the general public, in the specialist areas in which its faculty work. This, in turn, establishes an important growth goal for IMI, namely the development of a foundation that will financially support such activities. Funding for the foundation will come from donations, grants, and perhaps revenue-earning activity such as executive education (p. 13; profit-earning executive education is, however, a major undertaking and will take time to establish), and is expected to be an important priority for IMI's leadership.

### **Research fellowships**

IMI, building on the faculty strength of the University in the areas of technology and innovation management, will have the capacity to attract international scholars. The Institute aims, with success in fundraising, to provide facilities and support for such scholars to visit for limited time periods (a few weeks to one year). Also, the success of fundraising will determine both facilities and financial support that would be available for promising early-stage researchers through post-doctoral fellowships for multi-year periods. Thus IMI will create a hub in the international network of scholars who have interests at the interface between sector-specific research and management to achieve significant outcomes.

### **RIC Centre and Advantage Mississauga liaison and integration**

The Research, Innovation, Commercialization Centre (RICC) was launched in 2008 as a not-for-profit organization supporting the development of innovation and entrepreneurship in Mississauga, Brampton and Caledon (the Region of Peel). The RICC evolved from an initiative started in 2003 by UTM in partnership with the City of Mississauga and local companies, and is now a valued member of the Ontario Network of Excellence (ONE). The RICC is an operational unit within the Mississauga Board of Trade.

The RICC provides commercialization support to help new entrepreneurs and seasoned business people take technical innovations to market in the fields of advanced manufacturing, aerospace, life sciences, and emerging technology. UTM continues to support the RICC as a founding partner, providing support on the Advisory Board and various working groups, support in technology assessment, support for employment of co-op students who are enrolled in

professional business-of-science graduate programs, and access to undergraduate internship students, meeting space and office space.

The future development of the RICC and of related innovation activities in Mississauga is captured in the *Action Plan for Innovation in Mississauga*, which identifies four action areas: building leadership capacity; building a talent advantage by developing and linking skills for innovation; building a connected innovation community; and leveraging existing innovation infrastructure. This represents a framework for further development of an innovation ecosystem in the region, and Advantage Mississauga was launched in the fall of 2012 to implement this framework. UTM has been asked to take a leadership role in driving talent and training in the area of innovation, in contributing to a pipeline of new innovations from the R&D enterprise at UTM and UofT, and in participation in the delivery of programming that supports innovators in the community. IMI is an ideal conduit through which such different elements of support can be organized and delivered in partnership with the community.

### **Partnership program**

Academic institutions such as IMI frequently form groups of interested outside parties, usually corporations, although sometimes public sector organizations join as well. Typically subscription-based, the group meets regularly to share experience and hear from members of the Institute's faculty. Other benefits could include priority access to the expertise of the Institute for consultancy, and, to the Institute, a source of income and access to field sites for experiential learning and research.

### **Executive education**

Although not a primary function of IMI, we foresee a future role for the Institute in providing leadership in information sharing by offering a range of specialized executive education programs, building on current activities sponsored by the MBiotech program and the RICC and drawing on the full range of the Institute's activities. The main goal of these programs will be knowledge transfer rather than revenue generation, although the latter may follow if the programs become well established. The programs will be designed to impart to practitioners the benefits of the research undertaken by IMI faculty. To be consistent with IMI's mission, the programs will not be general-purpose management courses, but specialist offerings, related to particular industrial sectors or professions, that benefit from the particular areas of expertise developed within the Institute. We envisage a range of delivery modalities, ranging from workshops attended in person to webinars accessible worldwide. This remains a long-term aspiration for IMI. Although the GTA in particular and Ontario in general will figure importantly in the geographical regions to be served by IMI, a measure of the Institute's success will be the national and international demand generated for the expertise of its faculty.

### **TEACHING STAFF**

As an EDU:B, IMI will make cross-appointments from many UTM Departments and University of Toronto divisions including many faculty from UTM's Department of Management. In the first instance these will be non-budgetary cross-appointments, although as IMI grows and its fund-raising activities take effect, budgetary cross-appointments (subject to the 49% limit for EDU:Bs) may follow.

The current list of faculty who have agreed to accept non-budgetary cross-appointments is given in the Table below.

<b>Name</b>	<b>Rank</b>	<b>Primary appointment</b>	<b>Academic focus (including IMI programs in which s/he will teach)</b>
Ajay Agrawal	Associate Professor	Rotman School	Economics of innovation, creativity, and entrepreneurship.
Varouj Aivazian	Professor	UTM Economics	Economics, finance, environmental economics; MMPA, Commerce, MScSM
Guy Allen	Senior Lecturer	UTM ICCT	Communications; MMPA
Gordon Anderson	Professor	UTM Economics	Applied Econometrics, Empirical Issues in Poverty Inequality and Polarization; Commerce
Ann Armstrong	Lecturer	Rotman School	Group behaviour; social enterprise; MBIotech, MScSM
Lee Bailey	Senior Lecturer	UTM Economics	Economics of Education
Leonard Brooks	Professor	UTM Management	Business and professional ethics, management accounting; MMPA, DIFA
Feng Chen	Assistant Professor	UTM Management	Financial reporting quality, accounting-based valuation, and international accounting; Commerce
Tenley Conway	Associate Professor	UTM Geography	Structure & function of coupled human-environmental systems; MScSM
Rahul Deb	Assistant Professor	UTM Economics	Microeconomics; Game Theory
Marc Dryer	Senior Lecturer	UTM Biology	3D biomedical visualization and animation; MScBMC
Margarida Duarte	Associate Professor	UTM Economics	Macroeconomics; International Economics
Miquel Faig	Professor	UTM Economics	Macroeconomics; Finance
Louis Florence	Senior Lecturer	UTM Management	Corporate finance, financial management; valuing management education; Commerce
Alberto Galasso	Assistant Professor	UTM Management	Determinants and management of innovation; MMI (Director), Commerce
Hugh Gunz	Professor	UTM Management	Careers, management of professionals, ethics; MScSM, Commerce
Monika Havelka	Senior Lecturer	UTM Geography	
Tanjim Hossain	Assistant Professor	UTM Management	Behavioural economics; MMI, Commerce
Jodie Jenkinson	Associate Professor	UTM Biology	Information visualization & perception-based design theory; MScBMC
Gueorgui Kambourov	Associate Professor	UTM Economics	Macroeconomics; International Economics
Sonia Kang	Assistant Professor	UTM Management	Barriers to and methods for optimizing diversity; Commerce, MMI
Shashi Kant	Professor	Faculty of Forestry	Forest resource economics and forest management systems; MScSM
Tanya Kirsch	Lecturer	UTM Management	Socially responsible investing; small-and-mid cap shares; Commerce
Joan Kitunen	Senior Lecturer	Rotman School	Taxation; MMPA

<b>Name</b>	<b>Rank</b>	<b>Primary appointment</b>	<b>Academic focus (including IMI programs in which s/he will teach)</b>
Lisa Kramer	Associate Professor	UTM Management	Behavioural finance: investor behaviour; Commerce
Ulli Krull	Professor	UTM Chemical and Physical Sciences	Knowledge translation and commercialization of diagnostic technologies; MBiotech
Nicola Lacetera	Assistant Professor	UTM Management/ICCT	Economics of innovation; MMI, Commerce
Kevin Li	Assistant Professor	UTM Management	Valuation, earnings management, capital structure, and regulation and disclosure; Commerce
Nicholas Li	Assistant Professor	UTM Economics	Economic Development
Yue Li	Associate Professor	UTM Management	Accounting theory, management control and disclosure, environmental accounting; MMPA, MScSM, Commerce
Robert McMillan	Associate Professor	UTM Economics	Public Economics; Economics of Education
Angelo Melino	Professor	UTM Economics	Econometrics; Macroeconomics; Finance
Barbara Murck	Senior Lecturer	UTM Geography	MScSM
Philip Oreopoulos	Associate Professor	UTM Economics	Labour Economics; Applied Econometrics
Andreas Park	Associate Professor	UTM Economics/Management	Financial Economics (Market Microstructure and Corporate Finance) and Game Theory (Games of Timing); Commerce
Jayson Parker	Lecturer	UTM Biology	Biotechnology; MBiotech
Jack Parkinson	Senior Lecturer	UTSC Management	Applied macroeconomics, productivity, financial markets; MMPA
Carolyn Pitchik	Professor	UTM Economics	Microeconomics
Scott Prosser	Associate Professor	UTM Chemical & Physical Sciences	NMR spectroscopy of membrane proteins; MBiotech
Phani Radhakrishnan	Lecturer	UTSC Management	Cross-cultural differences; ethnic discrimination; MMPA
Leigh Revers	Senior Lecturer	UTM Biology	Biotechnology entrepreneurship; MBiotech
Manfred Schneider	Senior Lecturer	UTM Management	Business law, auditing; MMPA, DIFA, Commerce
Eckhard Schumann	Lecturer	UTM Management	Education of professional accountants; Commerce
Catherine Seguin	Senior Lecturer	UTM Management	Accounting education, accounting for non-profits; Commerce
Harvey Shear	Professor	UTM Geography	Environmental remediation; MScSM
Sasa Stefanovic	Associate Professor	UTM Biology	Plant evolution topics centred around inference of plant tree of life at various phylogenetic levels, application to evolutionary problems; science/management undergraduate program.

<b>Name</b>	<b>Rank</b>	<b>Primary appointment</b>	<b>Academic focus (including IMI programs in which s/he will teach)</b>
Xianwen Shi	Assistant Professor	UTM Economics	Microeconomics
Soo Min Toh	Associate Professor	UTM Management	Expatriate experience; victimization; cultural constraints; Commerce
Mihkel Tombak	Professor	UTM Management	Economics of technological innovation; MMI, MBIotech, MScSM
Laura Turner	Assistant Professor	UTM Economics	Labour Economics
Gábor Virág	Assistant Professor	UTM Management, ICCIT	Dynamics of market interaction; MMI, Commerce
Aida Wahid	Assistant Professor	UTM Management	Management control, governance; MMPA, Commerce
Anthony Wensley	Associate Professor	UTM Institute of Communication, Culture and Information Technology	
Irene Wiecek	Senior Lecturer	UTM Management	Accounting, accounting pedagogy; MMPA, Commerce
Kathi Wilson	Associate Professor	UTM Geography	Geographies of health, social exclusion; gender and health; MScSM
Linda Wilson-Pauwells	Professor	UTM Biology	Visualizing immunology, neuroanatomy; ethics & professionalism; MScBMC
Ronald Wolthoff	Assistant Professor	UTM Economics	Macroeconomics; Microeconomics; Labour/Human Capital
Kathleen Wong	Lecturer	UTM Economics	Health Economics; Labour Economics
Nicholas Woolridge	Associate Professor	UTM Biology	Digital media as instruments of biomedical research, teaching, and patient assistance; MScBMC
Minlei Ye	Assistant Professor	UTM Management	Economics of auditing, management compensation, earnings management, disclosure, regulation and capital markets; Commerce
Xiaodong Zhu	Professor	UTM Economics	Macroeconomics; Public Economics; Economics Development; Finance
David Zweig	Associate Professor	UTSC Management	Organizational behaviour; MMPA

Current teaching commitments of UTM faculty to the programs offered within IMI:

<b>Name</b>	<b>Rank</b>	<b>Primary appointment</b>	<b>Teaching Commitments to programs offered by IMI</b>
Varouj Aivazian	Professor	UTM Economics	MMPA
Guy Allen	Senior Lecturer	UTM ICCT	MMPA
Leonard Brooks	Professor	UTM Management	MMPA, DIFA
Ulli Krull	Professor	UTM Chemical and Physical Sciences	MBiotech
Yue Li	Associate Professor	UTM Management	MMPA
Jayson Parker	Lecturer	UTM Biology	MBiotech
Scott Prosser	Associate Professor	UTM Chemical & Physical Sciences	MBiotech
Leigh Revers	Senior Lecturer	UTM Biology	MBiotech



<b>Name</b>	<b>Rank</b>	<b>Primary appointment</b>	<b>Teaching Commitments to programs offered by IMI</b>
Manfred Schneider	Senior Lecturer	UTM Management	MMPA, DIFA
Mihkel Tombak	Professor	UTM Management	MBiotech
Aida Wahid	Assistant Professor	UTM Management	MMPA
Irene Wiecek	Senior Lecturer	UTM Management	MMPA

Searches are underway at UTM for tenure and teaching stream positions for faculty who will have teaching commitments to programs offered by IMI and additional positions are planned.

Current teaching commitments of UTM faculty to the programs to be supported by IMI:

<b>Name</b>	<b>Rank</b>	<b>Primary appointment</b>	<b>Teaching Commitments to programs supported by IMI</b>
Varouj Aivazian	Professor and Chair	UTM Economics	Commerce
Gordon Anderson	Professor	UTM Economics	Commerce
Lee Bailey	Senior Lecturer	UTM Economics	Commerce
Feng Chen	Assistant Professor	UTM Management	Commerce
Rahul Deb	Assistant Professor	UTM Economics	Commerce
Marc Dryer	Senior Lecturer	UTM Biology	MScBMC
Margarida Duarte	Associate Professor	UTM Economics	Commerce
Miquel Faig	Professor	UTM Economics	Commerce
Louis Florence	Senior Lecturer	UTM Management	Commerce
Alberto Galasso	Assistant Professor	UTM Management	MMI, Commerce
Hugh Gunz	Professor	UTM Management	Commerce
Tanjim Hossain	Assistant Professor	UTM Management	MMI, Commerce
Jodie Jenkinson	Associate Professor	UTM Biology	MScBMC
Gueorgui Kambourov	Associate Professor	UTM Economics	Commerce
Sonia Kang	Assistant Professor	UTM Management	MMI, Commerce
Tanya Kirsch	Lecturer	UTM Management	Commerce
Lisa Kramer	Associate Professor	UTM Management	Commerce
Nicola Lacetera	Assistant Professor	UTM Management/ ICCT	MMI, Commerce
Kevin Li	Assistant Professor	UTM Management	Commerce
Nicholas Li	Assistant Professor	UTM Economics	Commerce
John Maheu	Professor and Associate Chair	UTM Economics	Commerce
Robert McMillan	Associate Professor	UTM Economics	Commerce
Angelo Melino	Professor	UTM Economics	Commerce
Philip Oreopoulos	Associate Professor	UTM Economics	Commerce
Andreas Park	Associate Professor	UTM Economics/Management	Commerce
Carolyn Pitchik	Professor	UTM Economics	Commerce
Eckhard Schumann	Lecturer	UTM Management	Commerce
Catherine Seguin	Senior Lecturer	UTM Management	Commerce

Xianwen Shi	Assistant Professor	UTM Economics	Commerce
Soo Min Toh	Associate Professor	UTM Management	Commerce
Laura Turner	Assistant Professor	UTM Economics	Commerce
Gábor Viràg	Assistant Professor	UTM Management, ICCIT	Commerce
Linda Wilson-Pauwells	Professor	UTM Biology	MScBMC
Ronald Wolthoff	Assistant Professor	UTM Economics	Commerce
Kathleen Wong	Lecturer	UTM Economics	Commerce
Nicholas Woolridge	Associate Professor	UTM Biology	MScBMC
Minlei Ye	Assistant Professor	UTM Management	Commerce
Xiaodong Zhu	Professor	UTM Economics	Commerce

## BUDGET AND BUDGETARY AUTHORITY

A budget outline covering IMI's start-up phase is given in Appendix A (p. 21). The initial source of funds will be UTM. With the exception of the (interim) Director, administrative positions will be drawn from existing programs as they are brought into IMI's structure (see timeline, p. 18). As IMI grows, funds will come from enrolment growth in its programs and fund-raising activities led by its Director.

Initially, administrative support for the interim director will be provided by the Department of Management, which will assist with financial administration and HR matters. Over the first two years the administration will become properly established and a Director Operations appointed (Figure 1), who will assume full operational responsibility.

UTM's Vice Principal Academic and Dean will retain ultimate authority for budgetary matters.

There will be no additional space and facility needs for the foreseeable future (see p. 19).

## REVIEWS

IMI will be reviewed in accordance with the *Guidelines for Review of Academic Programs and Units*, ideally to coincide with the end of a director's term of office, and in any case no less often than every eight years. Its success will be gauged broadly in the first instance by the impact that it has had within its domain:

- The success, in terms of enrolment and reputation, of its teaching programs;
- the extent to which its faculty have developed its reputation as a centre for scholarship;
- the extent to which it has developed new and innovative cross-disciplinary teaching and research programs that are evidently the result of the collaborations that it has made possible; and
- its impact on the Mississauga and Region of Peel business communities in particular, and the broader Canadian business community in general.

The approximate timeline anticipated is as follows:

- Before appointment of Director:
  - July 1, 2013: Appointment of Interim Director.
  - Summer—Fall 2013:

- Integration of, MMPA, MBIotech and DIFA into IMI, support for Commerce, and linking of MMI into IMI; development of administrative structures to support these and future activities.
    - Beginning the collation of community-building activities (lectures, seminars, other meetings designed to establish the identity of IMI and draw its faculty together).
      - Winter 2014: Linking of MScSM (if approved) into IMI.
      - Fall-Winter 2014: Search for Director.
  - During the Director's first term:
    - Establishment of Advisory Board, connections with external stakeholders.
    - Introduction of cross-disciplinary BBA programs.
    - Introduction of a new graduate program (subject to provincial permission).
    - Growth of undergraduate program enrolment by 20% (subject to necessary faculty resources being available).
    - Establishment of IMI's identity as a credible source of output of research and scholarship in cross-disciplinary studies in management.

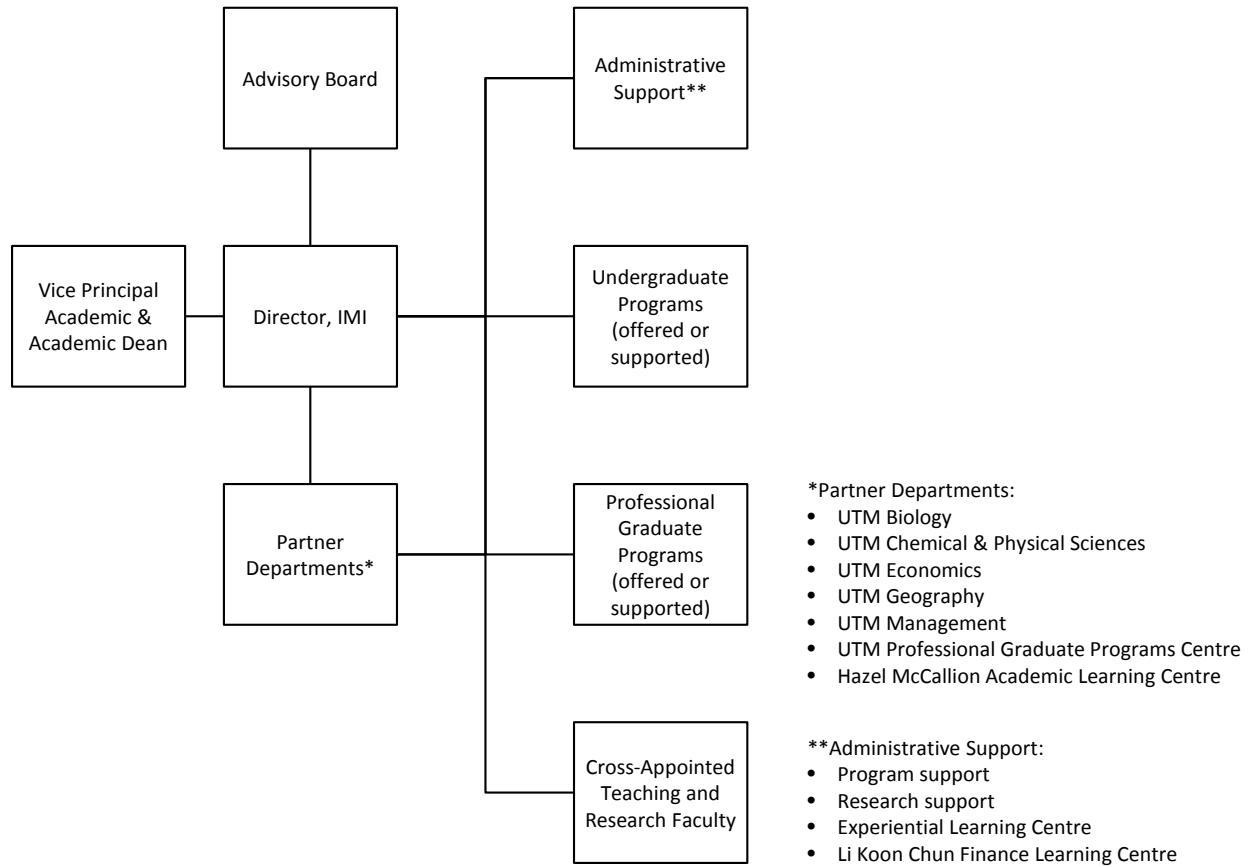
## **SPACE AND FACILITY NEEDS**

IMI will be housed in the Kaneff Centre, which is currently being expanded significantly (almost tripling the current floor space). The additional space and facilities will be sufficient for IMI's needs for the foreseeable future, and no incremental space and facilities costs of any significance are anticipated.

## **LIBRARY**

The Hazel McCallion Academic Learning Centre (HMALC) will be a key partner in the IMI project. Specifically, the already-approved Kaneff expansion project includes the Li Koon Chun Finance Learning Centre, which will be moved from its current location in the HMALC. Otherwise, IMI's early years will have little impact on the HMALC other than in terms of redirecting the work of the relevant liaison librarians. The review process for adding further programs to IMI will, of course, include assessing their resource implications for the HMALC. We expect the requirements for teaching, learning, and research support to mirror those of any other growing academic unit at UTM.

**FIGURE 1: ORGANIZATIONAL AND REPORTING STRUCTURE FOR IMI**



## APPENDIX A

### IMI Start-Up Budget, 2013-2014 & 2014 - 2015

		Year 1 10/12th July 1, 2013 - 2014	Year 2 12/12th 2014 - 2015
<b>Payroll:</b>			
	G/L		
Pay:Academic Compensation (Director Stipend; Note 1)	801010	12,500	15,000
Pay:Administrative Compensation (Note 2)	801040		83,333
Pay:Union Compensation (Experiential Learning Coordinator; Note 3)	801050	58,620	72,689
Pay:Casual Administrative Compensation	801140	500	1,500
	<b>Total</b>	<b>71,620</b>	<b>172,522</b>
Pay:Benefits Appointed	801910	17,602	42,328
Pay:Benefits Non Appointed	801920	50	150
	<b>Total</b>	<b>17,652</b>	<b>42,478</b>
<b>General Expense:</b>			
Equipment:Computing:Purchase	821110	1,500	2,500
Supplies:General	825000	200	300
Services:general	835000		
Experiential Learning Activities	5,000		
Seminar Series	15,000		
Other:			
	<b>20,000</b>		
Ceremonies	835766	3,500	5,500
Parking charges (UTM visitors)	835780	100	200
Business Lunch/hospitality	836400	1,500	1,800
Gifts/goodwill	836420	400	600
Photographic Service	837210	2,500	2,500
Advertising/marketing	835900	46,667	56,000

Visual Identity: media artwork, design, photography	7,500
Website: design, development (total project cost split over 1.5 yr)	6,700
Print: brochures, posters, other	4,300
National advertisement (one ad in the G&M Business section)	28,000
Local Advertisement: universities, regional newspapers, etc.	9,500
	<u>56,000</u>

**Total**

54,667

66,600

**Projected Start-up Costs Grossed UP**

143,939

281,600

**Projected Start-up Costs Less Pre-existing PM**

177,642

- Notes
1. Academic Director. \$15K pa, assume the actual rate will need to be negotiated.
  2. Senior PM return ETA Sept 1, 2014 (PM6 anticipated level) (FTE on Hold)
  3. Will begin to coordinate experiential learning across grad and undergraduate