6. Outreach, Collaboration and Influence

Collaboration is vital to successfully address many engineering challenges; this also holds true for the Faculty. If we are to achieve our ambitious goals, we must seek out collaboration and reach out to individuals, industry, government, and peer institutions to share our knowledge and to influence practice. In so doing, we further the excellent work that we undertake to address the world’s most pressing challenges. By working with key stakeholders to achieve our common goals, we will increase our impact on, and contribution to, our society and community of peers. The creation and transfer of knowledge, creation of jobs, and creation of countless inventions and innovations all serve to make our world a better place.

Strengthening research partnerships with industry creates mutually beneficial results. Industry partnerships provide us with a source of funding to enable our mission, while industry gains access to brilliant minds and excellent testing facilities, which enables them to bring new processes, products, and technologies to market. Through departmental open houses, topic-specific research days, and Faculty-wide industry events, we continue to steward our relationships with existing industry partners, while developing new relationships with prospective industry partners. To convey the value of these relationships, we created a corporate brochure that highlights our key research strengths and the benefits of partnering with U of T Engineering. The brochure is fully customizable, so can be tailored to target specific audiences, or feature a specific department or research institute.

Our outstanding international reputation as Canada’s premier engineering school continues to attract top exchange students. Our participation in the Science without Borders (SwB) program continues to be a tremendous success, and we remain the number one choice for these students. This year we have 301 Brazilian students participating in our programs. In addition, each year we have approximately 50 students from countries including Australia, China, France, Korea, India, and Mexico, who undertake exchange programs with us. When these students leave U of T Engineering, they often return to their home countries as ambassadors for our programs, spreading the word among their peers about the quality of our educational programs.

Through partnerships with peer institutions, we build on our excellence in research and education. Peking University (PKU) is the premier university in mainland China and we are pleased to participate, in partnership with this distinguished institution, in two successful programs that greatly enrich our students’ experience:

- The Global Exchange Initiative (Globex) gives MIE students the opportunity to take part in an intensive four-week summer program at PKU, exposing them to new ideas, research, people, and culture. Select MIE students also collaborate with students at PKU throughout the year on their fourth year capstone design
projects. These students work together to arrive at solutions to problems proposed by clients who hold operations in both Canada and China, such as GM and Bombardier. Through in-person and virtual meetings, students learn to work as a team in circumstances that mirror those found in global partnerships, such as working over distance and across cultures, thus providing them with a rich, real life experience. U of T Engineering was the first Canadian partner in this program.

- The Faculty has also entered into Memoranda of Understanding (MOU) with both Shanghai University and TU Darmstadt. A second pilot 3+1+1 program was established with Shanghai University, whereby students will be able to complete the fourth year of their undergraduate studies through our MIE program, while also receiving conditional acceptance into our MIE MEng program. TU Darmstadt is one of Germany’s highest ranked universities in both teaching and research. The signing of this MOU for the exchange of students opens the door for some of our brightest Engineering Science students to participate in summer research at this top institution.

Our alumni community is now over 40,000 members strong and they are our ambassadors to the world. Cultivating strong ties and building on the passionate sense of community that is so intrinsic in Skule spirit is essential to our overall success in outreach, collaboration, and influence. U of T Engineering alumni give back through their participation in recruitment and post-acceptance events, as well as through their generous donations to scholarships and infrastructure investments; in particular, the Centre for Engineering Innovation & Entrepreneurship (CEIE).

Most notably, we have increased our efforts in the Asia-Pacific region over the past few years, visiting a full complement of countries in the region twice each year. This is aiding our efforts to build a stronger sense of community among our alumni, and is impacting philanthropic giving in positive and substantive ways. In 2013-14, Dean Amon travelled to the region to officially launch fundraising campaigns supporting named spaces in the CEIE, in South Korea, Hong Kong, Singapore, Malaysia, Indonesia, and Taiwan. A return visit this spring provided opportunity to reconnect and to mark the successful completion of chapter campaigns in Hong Kong and Singapore. To date, Hong Kong alumni have contributed over $5-million to the Engineering Boundless Campaign, while Singapore/Malaysia not only met, but surpassed their fundraising target. This year we will increase the number of topical events held in Asia-Pacific and continue our efforts to strengthen the ties and traditions that connect us to our largest alumni base outside of Canada.

For students actively engaged in the Skule community, it is a natural extension for that participation to continue the tradition when they become alumni. We are extremely fortunate to have so many of our alumni contribute their time and talents to U of T Engineering. This ranges from volunteering as mentors and sponsors, to participating in various committees and advisory boards, or serving as panelists and volunteers with club activities. Alumni are already engaged in incubating projects and helping to develop
students’ entrepreneurial skills through the many innovative initiatives that will eventually take full root in the CEIE (such as the Entrepreneurship Hatchery). One of our newest initiatives is the establishment of a Young Alumni Board, comprised of recent graduates who are recognized leaders in their fields and philanthropic supporters of the Faculty. The goal of this board is to engage and involve alumni in fundraising and community-building initiatives.

In 2013-14, we experienced our most successful year in fundraising. Through the generous support of a record number of major donors, we raised nearly $22-million which, combined with funds raised at earlier stages of the campaign, brings us more than halfway to our $200-million Engineering Campaign goal. This year’s contributions nearly double the amount of major gifts secured last year, and over $10-million of that amount was directed to support the CEIE building, the cornerstone of our Boundless Campaign. This new space will further inspire creativity and 21st century learning across our Faculty. The tremendous support we have received from alumni, friends, students, faculty, and staff demonstrates their belief in, and commitment to, our vision for the future. We look forward to building on this momentum and making even further progress towards achieving our goals this year.

6. OUTREACH, COLLABORATION AND INFLUENCE: YEAR 3 PROGRESS HIGHLIGHTS

6.1 Better understand the breadth of the Faculty’s current outreach, collaborative and influencing efforts, then efficiently manage, support, develop and communicate these activities.

• Developed a corporate brochure that highlights our key research strengths, and the benefits of partnering with U of T Engineering; can be customized to target specific audiences, or to feature a specific department or research area
• In preparation for our main Faculty website redesign, met with stakeholders to assess their perceptions and needs of the site and ways to engage various audiences
• Building on the previous year’s alumni relations strategic planning, monitored metrics for measuring alumni engagement – now at 12% vs. 9% last year

6.2 Continue building meaningful involvement and relations with Engineering alumni.

• Hosted 61 alumni events across the globe in 2013-14
• BizSkule events in San Jose and Toronto showcased engineering leadership with compelling speakers and panelists
• Established fundraising communities and officially launched fundraising campaigns in November 2013 in Hong Kong, Indonesia, Malaysia, Singapore, South Korea and Taiwan in support of nationality named spaces in the CEIE building; subsequent visit in May 2014 marked successful completion of campaigns in Hong Kong and Indonesia
• Created the Young Alumni Board, comprised of recent graduates who are recognized leaders in their fields and philanthropic supporters of the Faculty, to engage and involve younger alumni in fundraising and community-building initiatives
6.3 Strengthen relationships with other University of Toronto Faculties.

- Developed Canada's first collaborative program in Engineering Education (EngEd) at both the master and PhD levels in partnership with OISE
- Continued discussions with the Faculty of Arts & Science regarding a mutual interdivisional teaching agreement
- During a recent visit from the president of CAF – Latin America Development Bank, worked with the Faculty of Arts & Science to showcase U of T’s research strength in all areas of infrastructure
- Through the Centre for Global Engineering (CGEN), offered the Interdisciplinary Approach to Global Challenges course which brought together graduate students from U of T Engineering, the Dalla Lana School of Public Health, the Rotman School of Management and the Munk School of Global Affairs

6.4 Further develop sustainable collaborations with industry partners, and expand established partnerships with affiliated hospitals and research institutes.

- Hosted second annual Industry Partners Networking Reception in November 2013
- Actively pursued opportunities with top corporate prospects
- Hosted departmental industry research events
- Through the University of Toronto Institute for Multidisciplinary Design & Innovation (UT-IMDI), engaged industry clients such as Bombardier and Magna for summer projects and multidisciplinary capstone design projects
- Engaged alumni in industry to act as mentors and judges for the Entrepreneurship Hatchery’s concept development program

6.5 Further develop connections with local communities, businesses and the City of Toronto.

- The City of Toronto tested U of T Engineering graduate Samah El-Tantawy’s (CivE) smart traffic light system on 60 downtown Toronto intersections, reducing delays up to 40%
- City of Toronto’s Entrepreneurship Award won by alumnus Hargun Suri (CompE 1T3); the award is designed to recognize the significant contributions that international students make to Toronto’s economic and socio-cultural development
- Established the University of Toronto Transportation Research Institute (UTTRI), which works closely with the city on a number of transportation related initiatives

6.6 Build upon high school outreach and continue to assess our pre-university activities with the goal of optimizing faculty and student involvement.

- Held our third successful Girls’ Leadership in Engineering Experience (GLEE) event in May 2014
- Visited more than 200 GTA schools during May/June 2013 through our In-School Workshop program for students in grades three to eight
- Launched the DEEP (Da Vinci Engineering Enrichment Program) Saturday Workshops, which allow participants to explore cutting-edge engineering applications, such as sustainable energy, biomedical engineering and robotics
• Hosted the inaugural FIRST LEGO League International Open in June 2014, exposing students aged 9-14 to real-world engineering challenges by building LEGO-based robots to compete on a thematic playing surface.

6.7 Develop strategic relationships with desirable peer, national and international Engineering schools.

• Participated for the second year in the Global Educational Exchange (Globex) initiative with Peking University
• Entered a new exchange agreement with the University of Shanghai
• Signed a MOU on student exchange with TU Darmstadt
• Welcomed 301 Brazilian students through the Science Without Borders scholarship program in September 2014
• Welcomed 50 exchange students from Universities around the world.

6.8 Increase influence in government and public policy decisions.

• Worked with NSERC representatives to make the case for NSERC Strategic Project Areas of interest to FASE, U of T, and Canada
• Met with several ministers and Tri-Council leadership, for example with Minister Reza Moridi, Minister of Research and Innovation, to discuss entrepreneurial advances and research infrastructure in FASE

6.9 Develop a culture of stewardship and gratitude to the alumni and donors who provide philanthropic support to the Faculty.

• Publicly recognized several major donors through online news articles and print publications
• Organized our third Annual Dean’s Dinner in October 2014 to recognize donors and acknowledge their generous gifts in support of the Faculty
• Celebrated 11 alumni at the U of T Arbor Awards
• Fostered dialogue with alumni and friends in support of our Engineering Campaign goals

6.10 Encourage the participation of administrative staff in professional associations related to their area of expertise, and in the mentoring programs offered by the University.

Through regular meetings of departmental business officers and our new Human Resources office, explored opportunities for formal and informal initiatives to encourage staff development.