



Institutional Vision, Proposed Mandate Statement and Priority Objectives

A submission to begin the process of developing strategic mandate agreements (SMAs):

To: The Honourable Glen Murray
 Minister of Training, Colleges and Universities
 The Ministry of Training, Colleges and Universities

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Part 1: Western University

Western's Mission is to provide the best student experience among Canada's leading research-intensive universities.

Mandate

As the leading full-service, research-intensive, residential university known for its commitment to the Best Student Experience, discovery research and innovation, and transforming lives through knowledge mobilization across a broad array of disciplines, Western's mandate – derived from its Act and historical developments over more than 130 years – is to provide the highest quality learning environment to help students, staff and faculty achieve their full potential which, in turn, will drive Ontario's competitiveness and prosperity and Ontario's contribution to our global society. The Western community aims to deliver an exemplary university experience by engaging the best and brightest people, attracting strategic resources, and by continuously elevating ourselves to ever higher global standards.

Vision

Our vision is an extension of our mission and mandate: to be one of Canada's leading universities known nationally and internationally for its commitment to the Best Student Experience, the outstanding calibre and contributions of its students, graduates, and faculty, and the intensity and impact of its world-class research and service. Western will be a globally recognized destination for academic distinction delivering transformational learning and research with impact.

Overview

Western is home to more than 30,000 undergraduate and graduate students, 4,500 full-time faculty and staff, 5,600 part-time faculty and staff, and 400 postdoctoral scholars, in 11 Faculties. Western offers more than 250 undergraduate and professional programs, over 50 PhD and research Masters programs (as well as 11 Collaborative and 6 Interdisciplinary programs and trans-disciplinary innovative programs in new and emerging fields) in a robust research environment. Total annual expenditures top \$1 billion, with a regional development impact estimated at over \$3 billion annually in an active, engaged presence in communities throughout southwestern Ontario and beyond. The institution is large and complex, yet, through the efforts of faculty, staff and students creates a learning environment recognized nationally by students who have rated Western as their school of choice for the past 10 years running. Western consistently garners top marks in a range of categories including most satisfied students, quality of education, student-faculty interactions, and quality of teaching.¹

Western is differentiated from its peers by its abiding commitment to providing the Best Student Experience focused on student success. The results have been simply outstanding. Western's 1st to 2nd year retention rate is the second highest among its U15 peers across the country and compares favourably with the averages of the U15 peers, Ontario and US peers. Western's graduation rate is well over 80%, and compares very well with the U15 average and Ontario average of less than 75%. Over many years the University has pursued innovative approaches to enhance the quality of learning and adapted "best practices" from leading institutions around the world. Our program structures place students first; they optimize student choice and facilitate learning across disciplines. Our innovative modular delivery of degree programs enables students to combine majors and minors from different disciplines into combinations that fit student interest, mobility, and choice. Over 1,200 unique program combinations, combined with rich experiential learning opportunities provides a learning experience that is challenging, engaging, and transformative. Our history of program innovation has created an academic culture that is unique among research-intensive universities, placing students at the centre of everything we do. And, as a result of our approach to a broad based education, delivered in a holistic environment, our graduates disproportionately emerge as leaders in their future endeavours - Western has produced the largest number of 'Top 40 Under 40' award winners from across our Faculties of any Canadian university.

Western students reflect the multicultural mosaic of Ontario and, increasingly, the global village. Approximately 15% of the incoming undergraduate class is from the local area, 45% is from the GTA, 25% from other parts of Ontario and 15% from other Canadian provinces and from other countries. Most of our students in direct entry programs are from secondary school (80%), attracted by Western's reputation for the Best Student Experience, and interested in pursuing a full-time residential based learning experience and immersing themselves in Western's extraordinary learning environment – inside and outside the classroom.

Western is committed to enhancing student access and ensuring that no qualified student should be denied a Western education because of financial barriers. Accordingly, we have more than doubled the amount of student aid provided to our students over the past decade. As a result, nearly 45% of Western students graduate debt free. Western also has a special commitment to enhancing access for aboriginal students. Since the beginning of 'Reaching Higher', aboriginal student enrollment has increased by 87%, the 1st to 2nd year retention rate has increased to 89%, and the graduation rate is now 85%.

Western's commitment to discovery research and innovation are platforms for enriching the undergraduate and graduate learning experience. Whether in the lab, in the field, in the studio, or in the 'cloud', discovery research and innovation provide opportunities for students and faculty to engage in the pursuit of new knowledge, develop deeper understanding of existing knowledge and, through creative exploration, collaboration and 'hands-on' experience, enhance the learning experience and potential application of the knowledge to better the human condition. Western's discovery research demonstrates tremendous impact – illustrated by the legacy work of Dr. Henry Barnett and the use of Aspirin as preventive therapy for heart attack and stroke to the groundbreaking work now underway by Dr. Chil-Yong Kang on the HIV /AIDS vaccine that holds enormous potential to address a tragic health crisis affecting millions of people around the globe.

¹ Globe and Mail's 2012 Canadian University Report

Western's motto *Veritas et Utilitas* reflects its dual commitment to learning and the search for knowledge on one hand and translation and mobilization of knowledge on the other. Knowledge mobilization is all about putting the knowledge to work to transform lives locally and globally. Western is a leader in knowledge mobilization on many fronts through the development of collaborations with all three levels of government, industrial and business partners, various broader public sector agencies and entities, colleges and universities in Ontario and Canada, and, increasingly, higher education partners around the world. Western's multi-site Research Park (London and Sarnia), our affiliation with the Sarnia Research & Business Park and the Advanced Manufacturing Park in London, and our commitment to technology transfer through the Stiller (London) and Bowman (Sarnia) Business Incubators and through our commercialization agency, WORLDdiscoveries[®], are evidence of collaborative partnerships and initiatives aimed at improving Ontario's competitiveness and prosperity and mobilizing knowledge.

And knowledge mobilization at Western is also all about people. Western's 250,000 alumni located in over 100 countries are, by far, the single greatest source of knowledge mobilization, and every year we graduate over 7,600 talented individuals who are the agents of technology transfer and knowledge mobilization – although we prefer to refer to them as members of the Western family. Through practicum placements, work experience, and volunteer efforts, Western's students have a major impact on southwestern Ontario and beyond, transforming lives through knowledge mobilization. Further, Western as an institution is active in the local community, engaged in regional economic development, downtown revitalization, contributing to arts and culture, opening its doors to the London – Middlesex communities and working collaboratively with the City of London to enhance economic development in southwestern Ontario.

Western: Veritas et Utilitas

Transforming Mission, Mandate, and Vision into Reality

To realize our Mission, Mandate and Vision there are three key priorities that set the framework for institutional planning, policy development, and resource allocation.

- Strengthening the Best Student Experience
- Providing a learning environment that fosters creativity through exploration, discovery, invention and innovation.
- Transforming lives through knowledge mobilization (by putting knowledge to work to benefit society).

Each of the priority areas is worthy of a detailed exploration to highlight Western's achievements to date and aspirations for the future. Given the focus of the Strategic Mandate, we necessarily devote our attention to a few specifics in each of the areas knowing that they are illustrative of the wide range of activities, initiatives, and accomplishments that reflect Western's commitment to 'putting students first', contributing to the development and strengthening of a creative economy, and building on the achievements to date to realize increased productivity and innovation in the context of sustainability. Western has made significant progress in a host of areas to develop a quality learning environment that inspires students and faculty alike. For each of our three priority areas we provide a brief overview, illustrate our current status with specific examples, identify some concrete steps for improvement, and indicate how the continued pursuit of our key priorities aligns with the government's vision for postsecondary education. There is always more to do, and continuous improvement is the focus of our planning and resource allocation. Our longstanding planning and resource allocation processes ensure that institutional priorities drive budget allocations and we monitor, review, reassess and reallocate resources on a regular cycle. At the same time we are cognizant of the fact that inspiration – along with a lot of hard work – is a driving force for discovery and innovation.

Western's achievements are the products of good management including an institutional commitment to integrated planning that links our academic, research, capital and budget plans together in an environment of transparency and accountability through processes and policies that have developed over a long period of time. Western is a large complex organization with multiple stakeholders involved and interested in all or some part of the University's development. We take our responsibility to stakeholders seriously and through our governance structure have developed an accountability framework that includes institutional plans, identification of resource needs and allocations, and various monitoring mechanisms to ensure that we can demonstrate progress towards the fulfillment of our plans. This mandate submission reflects the work of the Western community – past and present – and the extensive array of University planning documents. For a review of the various components associated with our accountability framework, please refer to:

<http://www.uwo.ca/pvp/accountability.html>

Key planning and governance documents are also available at:

<http://www.uwo.ca/univsec/index.html>

Key priority objective 1: Strengthening the Best Student Experience

Western's uncompromising commitment to excellence and the delivery of the Best Student Experience is embedded in our mission and reflected in all aspects of the Western learning experience. What does it mean?

The Best Student Experience is all about Putting Students First to ensure **student success**. Student success optimizes the investments made by students, the province, and the institution, and results in graduates who will make a positive contribution to society in many ways. Western students and graduates are part of a University that values students and recognizes the transformative nature of the learning experience that takes place in the classroom and the lab, in experiential opportunities, on-campus and on-line, in Ontario and

overseas, in the library, in the residences, in the extra-curricular opportunities, and with the help of student services that encourage student success.

- It begins with the **Western guarantee** (access to 1st year courses and a space in residence) and is kick-started with the **Summer Academic Orientation (SAO)** that connects first-year students with the campus, course selection, a faculty member or academic advisor, peers, and the services available to help ensure their success - before they begin school in September.
- It is nurtured in our residences where residence programs **focus on the student**, providing assistance in the transition to independence and ensuring our students take advantage of the rich academic and extra-curricular environments that characterize Western.
- It is facilitated with **program choice**. In addition to the unique modular delivery program noted earlier, Western is renowned for its unique standalone, joint, dual, and combined programs. Our HBA (Honors Business Administration) degree, for example, is the world's only fully case-based undergraduate business degree, and can be taken on its own or in combination with no fewer than 12 other disciplinary degrees. We have 2+2 and 3+1+1 degree opportunities with international partners in China and we have more than 20 professional programs at the Masters level ranging from emerging professions in health, such as Clinical Physics, to high-demand applied science and technology professions, such as Geophysics. Specialized certificates are available in many programs and an International Learning Certificate will be introduced in September 2013.
- It is enriched with **experiential learning** that pervades the Western experience on-campus and off-campus and requires collaboration with local and global partners ranging from the business/ industry sectors to school boards, and from non-profit agencies to health care organizations. Programs in many Faculties have a **practicum** component (Health Sciences, Education, Medicine & Dentistry, Law, Social Science, and Information and Media Studies) and **thousands** of Western students pursue the "hands-on" component of their education in public and private venues throughout southwestern Ontario. Additionally, last year, over 200 students were engaged in **internships** in Engineering, Science, Social Science and, close to 1000 students were involved in **curricular and co-curricular Community Service Learning**, over 100 students were involved in the **Job Shadow** program, 1,550 students were employed in the **Work Study** program, and hundreds more were involved in **experiential learning** in Ivey's programs and through **co-op programs** in Engineering, Environmental Science, and Library and Information Science. Further, approximately 1,000 students were involved in **study abroad, exchanges and other international learning opportunities** that, by the very nature of the activity, have an element of experiential learning imbedded in the experience. Over 6000 students participate in clubs and approximately 1000 students participate in student government across 26 Student's Councils.

It is enhanced with **innovative delivery mechanisms** from technologically enhanced course delivery, through distance education delivery, to 'capstone' courses requiring peer-to-peer learning, research experience and often involving industry participation, to one on one studio-based formats all designed to provide learning opportunities that optimize the learning experience and increase the depth of learning. Over 200 faculty are involved in teaching on-line courses and in some Faculties, **on-line instruction** now accounts for 10% of all instruction. At present, Western offers over 185 **on-line courses** for our undergraduates in direct-entry programs. Moreover, the delivery of Schulich medical program to students in both London and Windsor simultaneously is facilitated by a synchronous teaching/learning system that delivers its curriculum to students at both campuses via a private, high-speed fibre-optic connection using video conferencing technology.

The Best Student Experience, with an emphasis on student success, is dependent on many factors including the quality of faculty, staff commitment, the academic calibre and diversity of Western's students, and providing student-focused teaching and learning that recognizes the importance of program choices and program options. Student success is also dependent on services that meet their specific needs at critical periods in their Western learning experience. Western's investment in a full array of student services – learning skills, personal counselling, financial aid, career planning – is further evidence of its commitment to student success and to the Best Student Experience.

Our top four priorities to strengthen the Best Student Experience involve:

1. Greater investment in the number of faculty appointments to **improve student to faculty interaction** and create an even greater dynamic learning environment that will enhance the learning experience. We recognize government's financial circumstances and have taken matters into our own hands by focusing on the most critical part of the Best Student Experience – attracting and retaining world-class faculty. Accordingly, Western has dedicated a major portion of its current fundraising campaign to an increase in the number of funded faculty Chairs – with a goal to have 20 new Chairs by 2015.
2. Transforming our existing Faculty Associates program in the Teaching Support Centre by increasing the current number of Associates from 5 to a minimum of one per Faculty (11), doubling the time commitment of the associates, and designating the appointments as **Teaching Fellows**. The Teaching Fellows will initiate and coordinate Faculty-specific programming to respond to the teaching and learning needs of individual instructors, departments, schools and disciplines on **innovation in curriculum development**, technology assisted learning and access to courses locally and at a distance. The annual cost of the program transformation is estimated to be \$600,000 and requires an endowment of \$15 million. These, and a fund to support teaching innovation projects, are part of our fundraising campaign.

3. Expansion of experiential learning opportunities including i) more study abroad and exchange opportunities (towards an annual goal of 10% of students having an international experience), ii) increased co-op and internship opportunities, and, iii) increased Community Service Learning. Beginning next year, **Western's Co-Curricular Record (WCCR)** will be implemented, providing formal recognition of this important component of the Western learning experience.
4. Expansion of enrolment opportunities in professional graduate programs to meet **student demand** and labour market requirements for specialized degrees. Western currently has more than 20 professional masters programs that integrate the knowledge acquired through leading-edge research with professional skills development and practical experience. Many of the professional master's programs can be completed in combination with other degrees either at Western or abroad. Several new professional masters' programs are under development to prepare graduates for careers in communication, biotechnology, education and public health. In all cases the professional graduate programs build on Western's acknowledged strengths and are often interdisciplinary in nature.

As we strive to improve the Western experience, one aspect of **student mobility** will be enhanced further through the establishment of the University Credit Transfer Consortium (McMaster, Queen's, Guelph, Ottawa, Toronto, and Waterloo). Consortium members have agreed that any first year Arts and Science-type course offered for degree credit by a member of the University Credit Transfer Consortium will be accepted for general credit by all member institutions providing the student has achieved a minimum course grade of 60%. Consortium members have further agreed to specific equivalency for a set of 20 high-enrolment foundational courses. These courses will be accepted for specific first year credit by all member institutions. The Consortium is committed to expanding our credit transfer agreements to undergraduate professional programs and to upper year courses over the coming year.

How achievement of the objective will affect your total enrolment and enrolment mix. Our enrolment plans for the next five years call for growth at the undergraduate level of approximately 800 students (~4%) over 2011-12 – with a planned first-year class of 4,900, of whom 500 will be international students. Some programs are planning for slight increases (Business, Engineering, Health Sciences, Music, Sciences, Medical Science) while others are planning a steady state (Arts & Humanities, Social Science, Dentistry, Education, Kinesiology, Nursing, Medicine). At the graduate level, Master's enrolment is projected to increase by approximately 600 students by 2016-17, with much of the growth anticipated in new professional Master's programs and field concentrations. At the PhD level, enrolment is projected to increase by approximately 300 students over the period with growth focused in areas of strength consistent with our research goals. Details of Western's enrolment plans are available on-line at:

http://www.ipb.uwo.ca/documents/western_enrolment_plans.pdf

Any distinctive advantage, strength or characteristic of your institution that makes achievement of the objective credible, likely, and desirable. As indicated previously, Western has a number of distinctive characteristics that are important components of the Best Student Experience. But there are other factors to consider such as the size of the institution and breadth of programs since together they provide a rich tapestry for students to explore – for example, the Faculty of Music with about 530 undergraduate and 120 graduate students, is small enough that students can develop close working relationships with professors and colleagues, yet large enough to support a full symphony orchestra, prize-winning choirs, fully staged operas, jazz and various other wind ensembles and more than 350 concerts each year. Further, as noted in our Strategic Plan “*A significant part of Western's strength derives from our closest institutional partnerships. Our three affiliated University Colleges, Brescia, Huron, and King's, contribute to the richness and diversity of our educational environment by combining the values and intimacy of Liberal Arts Colleges, each with its own institutional identity, with the resources and academic opportunities of a broad, research-intensive university.*” (*Engaging the Future*, 2007) Over the next five years the University Colleges forecast enrolment growth of approximately 250 undergraduate students with an emphasis on **expanding upper year transfers** and **collaborative arrangements with colleges**. Finally, Western's track record provides concrete evidence of our efforts to date in striving to provide the Best Student Experience. Please refer to supporting information at the following link: http://www.ipb.uwo.ca/documents/western_sma_proof_points.pdf

- Students choose Western – demand for our programs is very strong with the ratio of applicants to available space in direct entry programs ranging from over 5.6:1 (Music) to 13.2:1 (Nursing). See Figures 1a and 1b.
- Strong applicant demand, coupled with a strong commitment to high academic standards translates into Western attracting student with outstanding records of academic and personal achievement and, consequently, having one of the highest entering averages in Ontario. See Figure 2.
- Once on campus, Western students are “engaged” and various measures illustrate a favourable level of academic engagement compared to peer institutions. See Figures 3a, b, and c.
- Results of course and instructor evaluations indicate that Western's students rate our courses and instructors very highly. See Figures 4a and 4b.
- Western's retention rate (93%) and graduation rate (81%) are higher than the rates at our peer universities in Canada and in the United States. See Figures 5 a, b, c, d.
- The employment rate of Western's graduates, two years after graduation, is 94%, and varies from 90% to 100% depending on the program. See Figure 6.

The timeframe for achieving the objective, resource allocations or redirections required, and metrics to be used to measure progress towards achieving the objective.

“Evaluating the quality of the student experience involves a wide variety of factors, and Western’s relative performance will vary among them. The best student experience must therefore be seen as a journey, not a destination, an aspiration with regard to our service to students which requires the continuing commitment of all in our community.” (Engaging the Future, 2007)

Western’s planning cycle operates in a four-year timeframe with annual updates to reflect actual developments and to monitor progress towards our objectives. As part of that comprehensive process, Western’s Performance and Activity Indicators are updated annually and available at <http://www.ipb.uwo.ca/performance.php> -- and are often augmented with special surveys and reports that delve into specific issues in greater depth. That practice will continue as part of Western’s commitment to good governance and public accountability.

Where applicable, the innovative initiatives that your institution is pursuing to improve productivity in administration, teaching, research and learning associated with the objective and any associated costs and resource implications. Providing the Best Student Experience is reflected in our resource allocations over the past few decades.

- On a comparative basis, Western’s expenditure on administration (as a % of total expenditures) is the lowest of the full-service research-intensive institutions with medical schools in Ontario, and well below the average for all Ontario universities (see Figure 7 at http://www.ipb.uwo.ca/documents/western_sma_proof_points.pdf). Our review of administrative expenditures to ensure that resources are used in the most efficient manner is continuous.
- Western’s commitment to allocating operating resources to help address deferred maintenance has allowed for a planned approach that optimizes the use of existing resources. Further, Western has been continuously upgrading its building automation system, resulting in improved indoor environmental quality for the occupants as well as energy savings of 3-6% in heating and cooling loads.
- The major re-purposing of existing space to serve academic needs coupled with consolidation of support services, and an emphasis on containing facilities operating costs has resulted in improved *operating efficiency*. On a per-unit basis, Western’s facilities operating costs – regular maintenance, custodial, utilities – have actually decreased in real terms since 2007.
- Western has also taken an innovative approach to energy conservation and was the first university in Canada to join the Cree LED University program, an international community of universities working to accelerate the adoption of energy-efficient LED (light-emitting diodes) lights across their campuses. To-date, the installation of LED lights is projected to save Western more than \$1 million in energy and maintenance savings over ten years.

Western’s approach to faculty remuneration recognizes the critical role of faculty in the provision of the Best Student Experience. Our merit based compensation arrangements are the product of collective bargaining and are designed to ensure that Western is able to recruit and retain highly qualified, high quality, faculty members. Western also has approximately 200 full-time ‘teaching stream’ faculty with appointments that are up to five years in duration, and are renewable.

Finally, it is important to note that Western operates on a year-round basis; spring/summer ‘credit’ enrolments topped 12,500 undergraduate course registrations and 4,800 graduate students. In addition, Western hosts thousands of additional students in non-credit activities and programs as well as numerous conferences that add to the learning dynamic throughout the year.

Any public policy tools that you need to achieve the objective. The most important public policy initiative to further our objective is the establishment of a provincial funding and policy framework that provides optimum predictability to strengthen planning and our ability to invest in long term commitments. The Best Student Experience is dependent on investing in existing programs and innovative initiatives that often have multi-year commitments yet are too often compromised by the short-term funding horizon and concerns about major changes in the policy environment. Further, in the interest of achieving improved productivity through economies and efficiencies we urge the Minister to review the Ministry’s own regulatory and accountability regimes and consider utilizing an annual report through the Board of Governors as the primary vehicle to ensure regulatory compliance and public accountability.

How this objective correlates to one or more of the government’s principles and parameters for higher education, outlined in Appendix A. This priority – Strengthening the Best Student Experience – aligns with Putting Students First by focusing our efforts on **student success** in an environment that provides **optimum choice** in program delivery and program structure within our resource constraints. Through a focus on learning outcomes and a variety of programs aimed at improving preparedness for the ‘world of work’ and/or the pursuit of further studies, Western **is** preparing students for the Creative Economy. Western’s emphasis on **efficiency and productivity** manifests itself in a number of ways and is evident by our track record of resource allocation that emphasizes and invests in the key components of the learning environment. This includes continued growth in the provision of **blended technology-enabled** and **experiential learning** opportunities, and additional **credit transfer** options. Western is leading in providing globally competitive programs that are recognized around the world for their high quality. In addition, our emphasis on achieving high levels of **student success** is simply good practice and translates directly into institutional and student productivity, efficiency, effectiveness, and affordability.

Key priority objective 2: Providing a learning environment that fosters creativity through exploration, discovery, invention and innovation

Whether aimed at fundamental discovery and generation of new knowledge, or direct application to the public and private sectors, Western’s research strengths are typically defined by the excellence of individual researchers and the research groups with which they are associated. Firmly rooted in the University’s most recent research plan, the University’s discovery research and innovation

mandate focuses on five core priorities that serve as pillars for fostering research excellence at Western, and for further nurturing the culture of advanced innovation at one of Canada's top research institutions:

- Going Global – producing results with global impact
- Mobilizing Knowledge
- Preparing Global-Ready Graduates
- Partnerships with impact
- Leadership through Interdisciplinary Research

Western's Strategic Research Plan can be found at:

<http://www.uwo.ca/research/excellence/docs/Western%20University%20Strategic%20Plan%20Overview%20Approved.pdf>

Each of the pillars carries a set of objectives that will be accomplished, over time, by a variety of strategies. The common theme is Western's commitment to bring the world to Western and take Western to the world. In a global economy Ontario must reach out and develop strong international ties to strengthen our economic development and improve productivity through creative projects, partnerships, and people. For a more in-depth view of Western Research, the breadth of research activity, and measures of Western's research performance please explore: <http://www.uwo.ca/research/excellence/strengths.html>

Increasingly, universities across the province are providing students with tangible opportunities to engage with the research enterprise. Western's decision to **strategically align its investments in research** – for large-scale facilities, recruitment and programs – with established areas of global-scale strength and industry focus provide students with a unique value proposition. Whether in neuroscience, imaging, wind engineering, materials or clean technologies, Western provides transformational learning opportunities by providing clusters of equipment, expertise and industry partnerships unavailable elsewhere. This unique focus on large-scale facilities and partnership allows students to gain practical, real-world experience, while working at all stages of the research lifecycle. In turn, the University successfully leverages these facilities and programs to obtain **student training funding** through programs like MITACS (Western receiving one-third of the province's interns last year), NSERC's Collaborative Research and Training Experience Program (**CREATE**) (Western currently hosts five in strategic areas) and CIHR's Strategic Training Initiative in Health Research (**STIHR**). Further, co-op, industry- and government-sponsored programs allow Western to develop a culture of advanced thought and entrepreneurship, while training job-ready graduates with the skills to excel anywhere in the world and our "inventor owns" Intellectual Property policy allows our students to commercialize their inventions.

Today, Western is bringing the benefits of **research intensity into the learning environment** in many ways: through the professor whose discovery research brings learning to life; through research assistantships that provide the 'hands-on' research experience for undergraduates and graduates alike; through the *Western Undergraduate Research Journal: Health and Natural Sciences* a student-run open access, peer-reviewed and Faculty-reviewed online journal, started in 2009, that publishes original research, review articles, and Students in the Field reports; (<http://ir.lib.uwo.ca/wurjhs/>); through *Nota Bene*, Canada's international undergraduate journal of musicology developed by the Don Wright Faculty of Music that publishes essays in historical musicology, ethnomusicology, popular music studies and theory written by undergraduate students from universities around the world; and through "capstone" research project courses that blend experiential learning with the development of research skills in an engagement that focuses on problem solving and the development of designs, products, applications to address real world problems. An example is in Health Informatics, where students are given an option of critiquing or building a decision support tool / application for use in health care, or in Civil and Environmental Engineering where designs developed by students have been recognized as springboards for several noteworthy city construction projects including bridges in Gibbons and Spring bank Parks, Labatt Memorial Park grandstands and twinning the Veterans' Memorial Parkway bridges.

The preceding are but a few examples of an incredible list of activities and initiatives that characterize Western Research. Those initiatives and activities are dependent on world-class faculty, outstanding students, and world class research facilities (for example, see <http://www.schulich.uwo.ca/research/corefacilities>), and are oriented towards discovery research and innovation that will have a positive impact on Ontario, Canada and the world. As part of our on-going interest in improving productivity through partnerships Western is committed to promoting industry access to our world class research facilities such as the Advanced Facility for Avian Research (AFAR), Boundary Layer Wind Tunnel Laboratory (BLWTL), and to full-scale technology validation through the Fraunhofer Project Centre, the Institute for Chemicals and Fuels from Alternative Resources (ICFAR), and the Wind Engineering, Energy and the Environment Dome (WINDEEE), as well as expanding access to university based resources through HQP Cloud Computing.

How achievement of the objective will affect your total enrolment and enrolment mix. Our priority for discovery research and innovation impacts our enrolment plans at the Master's and Doctoral level. As noted previously we are planning for continued growth in Graduate Studies over the planning period. As well, in keeping with our objective of 'going global' and in light of the province's Open Ontario initiative, we are planning for an increase in international graduate students. Much of the increase in enrolment at the doctoral level will be in the STEM disciplines.

Any distinctive advantage, strength or characteristic of your institution that makes achievement of the objective credible, likely, and desirable. The Western advantage focuses on the quality of Western's faculty and facilities and a culture that recognizes the power of student engagement in discovery and innovation research and the importance of partnerships in creating synergies that, ultimately improve Ontario's competitiveness. But we continue to "push the envelope":

- New models of industrial partnerships are evident in our LANXESS Inc. global research and development centre and the Fraunhofer Project Centre as well as the distributed cluster approach of the Southern Ontario Smart Computing and Innovation Platform involving IBM and the federal and provincial governments.

- *“London has become a national and international centre for pioneering education, research, and clinical practice in health care, due in large measure to the collaborative interaction with our affiliated research institutes and teaching hospitals. The Robarts Research Institute, Lawson Health Research Institute, the London Health Sciences Centre, and St. Joseph’s Health Care comprise a research and teaching constellation united by Western faculty and characterized by the highest levels of achievement and engagement with the community.” Engaging the Future 2007*
- In 2011, WORLDDiscoveries®, Western’s Business Development arm, established the first Canadian commercialization and technology transfer office ever in Mainland China. In addition to assisting researchers, students and industry with cross country collaborations, WORLDDiscoveries Asia is helping create investment opportunities, entrepreneurial opportunities and research opportunities both in the region and abroad.
- The Western Innovation Fund uses a competitive vetting process by local business people to select and support various early stage product development and proof of concept initiatives to advance potential commercial candidates for eventual market adoption. Since its inception, Western has invested over \$2.2 million in WIF sponsored projects that have generated an additional \$2 million in private sector investment. Over the past five years, Western Research has generated, on average, over \$4 million annually in technology transfer licensing income and over 90 invention disclosures per year. Western’s licensing revenue is the second highest of all universities in Canada and the highest in Ontario.
- Western’s commitment to interdisciplinary programs and associated world-class research is evident in the University’s world-renowned Brain and Mind Institute, comprised of researchers from a host of disciplines such as psychology, business, philosophy, music, science, medicine and medical imaging, collaborating to advance our understanding of cognitive neuroscience through the lens of their specific discipline. And the National Centre for Audiology is an international leader in hearing health care and involves partnerships with government and industry and collaborative working relationships with computer scientists, engineers, neuroscientists, speech science specialists and audiologists, to mention a few.

Any public policy tools that you need to achieve the objective. In addition to the need for greater funding predictability, it is important that steps be taken to recognize the full impact of research costs. While there has been substantial government investment in facilities infrastructure in new and emerging areas, the significant increase in research activity is a draw on institutional resources – an increase in faculty time, and the operating costs associated with research infrastructure – that are not adequately recognized in the operating grant. While the Ontario government under Premier Peterson introduced the Research Overhead and Infrastructure Envelope (ROIE) as part of the funding allocation equation in the late 1980s, the allocation has not kept pace with the significant expansion in tri-council research funding. If Ontario is to compete with other provinces and garner its fair share of federal research funding it is important to recognize the real cost of discovery research and innovation.

How this objective correlates to one or more of the government’s principles and parameters for higher education, outlined in Appendix A. The preceding priority aligns with a number of the principles and parameters including an emphasis on providing the necessary ingredients to develop and fuel the creative economy, increase local and international industrial partnerships and build on acknowledged strengths and areas of excellence, thereby contributing to Ontario’s international competitiveness.

In pursuing its mandate, Western has adopted a number of efficiency/productivity initiatives including i) participation in the C4 initiative, a technology transfer consortium involving ten universities and research institutions that fosters innovation in southwestern Ontario through coordination, cooperation and collaboration and commercialization, and ii) developing an administrative support system that facilitates all aspects of research administration.

Key priority objective 3: Transforming lives through knowledge mobilization

At Western, ‘knowledge mobilization’ is the catch phrase that captures the learning experience for students and faculty and mobilizes it to transform their lives and the lives of those they touch through activities that put their skills, knowledge, invention and innovation to work. Some of that happens as part of the dissemination and technology transfer associated with discovery research and innovation - the platforms for developing and further strengthening relationships and collaborations with all three levels of government, industrial and business partners, various broader public sector agencies and entities, colleges and universities in Ontario and Canada, and, increasingly, higher education partners around the world. But considerably more knowledge mobilization happens through the contributions of our graduates in Ontario and around the world, through our students whose impact on ‘community’ is manifested through volunteer activities, practicum placements, global development initiatives, and contributions to the fine arts and culture, through our faculty whose ‘service’ to the institution, the discipline, the community, the province, the country and internationally, constitutes an often overlooked and undervalued component that enriches our society in many ways, and through our staff whose contributions across a wide-ranging spectrum of activities add, immeasurably, to improving the life and vitality of the London and Greater London area.

- Community-based, hospital-based, and University-based clinics in London and the surrounding area become the knowledge mobilization centre for a range of disciplines such as medicine, dentistry, nursing, and the rehabilitation sciences where students are engaged in clinical placements, translating knowledge into action and, at the same time, learning by doing.
- K-12 schools become the knowledge mobilization centres for Education students; nearly 700 students are involved in 8 school boards in southwestern Ontario bringing talent, energy and innovative teaching skills to the classroom.

- For over 5 years, Western has annually supported and co-developed the Student 2 Business Networking Conference that assists 500 post-secondary students develop and enhance their networking skills with 250 employer representatives and to explore occupation trends and requirements.
- CommunityShift™ is an Ivey Business School-led developmental program for leaders of Canadian charities and not-for-profit organizations designed to help ensure the success of this important part of our social fabric.
- The Alternative Spring Break program offers students the opportunity to participate in a weeklong service learning project in communities in Canada and around the globe. Past service learning projects have included: working with First Nations communities in Winnipeg, Habitat for Humanity builds in New Orleans, teaching English in the Dominican Republic, offering rural medical clinics in Costa Rica and Nicaragua, and building an elementary school library in Peru.
- Continuing Studies, located in downtown London, provides lifelong learning opportunities to adult learners in the London – Middlesex region through the provision of over 200 courses designed for personal interest and/or leading to post-degree diplomas and certificates, and professional development certificates. Many of the programs have a practicum component with “hands-on” learning in the London area.
- Western’s global development activities span the globe, involving students and faculty in projects, initiatives and courses that transform lives. For example, working with partners in Rwanda, Western is leading a CIDA sponsored project to enhance the quality of maternal, newborn and child health care in Rwandan health facilities. To illustrate Western’s global presence please explore **Western Projects Around the World:** <http://www.uwo.ca/research/map.html>
- To catch a glimpse of Western Engineering students in action around the globe please explore Western Engineering at http://www.eng.uwo.ca/international/around_the_world.htm and click on the map “balloons” and on “student experiences”.

For the future, Western is committed to encouraging and enhancing knowledge mobilization by, in the first instance, ensuring that our students are provided with the opportunities, in-class and out-of-class, to experience hands-on learning in the ‘community’ whether the community is Western itself, London, southwestern Ontario, the province, the country or internationally. To that end, as noted earlier, initiatives are underway to expand study abroad opportunities with a goal of 10% of our students having such an experience while at Western (despite the elimination of provincial study abroad scholarships). The planned introduction of **Western’s Co-Curricular Record (WCCR)** will begin the formal recognition of the ‘out-of-class’ learning and community contributions that are part of the Western experience. Through practicum placements, work experience, and volunteer efforts, Western’s students have a major impact on London and southwest Ontario transforming lives through knowledge mobilization.

Western, as an institution, is active in the local community, contributing to arts and culture, and opening its doors to London and surrounding communities. Western has demonstrated a willingness and readiness to build on regional economic initiatives such as downtown revitalization and the Advanced Manufacturing Park to strengthen our role as a catalyst for economic and social development in London and southwestern Ontario. The fortunes of Western and the City of London are indelibly linked and we intend to work closely with the City and other partners to advance the social and economic prospects of the region.

How achievement of the objective will affect your total enrolment and enrolment mix.

Our efforts to improve knowledge mobilization will have minimal impact on total enrolment and enrolment ‘mix’ although success in encouraging more study abroad activity will result in more exchange students at Western. That development aligns well with the province’s **Open Ontario** plan by establishing global links and networks that have long-term benefits to the economic competitiveness of Ontario.

Any distinctive advantage, strength or characteristic of your institution that makes achievement of the objective credible, likely, and desirable

Earlier in this document we have outlined some of the distinctive characteristics and accomplishments associated with i) Strengthening the Best Student Experience and ii) Providing a learning environment that fosters creativity through exploration, discovery, invention and innovation. Many of the characteristics and accomplishments related to this priority area are evidence of our commitment to continuous improvement.

How this objective correlates to one or more of the government’s principles and parameters for higher education, outlined in Appendix A.

The preceding priority aligns with a number of the principles and parameters including an emphasis on Putting Students First by ensuring work experience and interaction with the communities, contributing to the creative economy and contributing to Ontario’s competitiveness by sponsoring and supporting student involvement in learning opportunities that extend beyond the classroom and lab. A civil society is dependent on an educated populace that takes its civic responsibilities seriously and is willing and committed to building ‘community’ – Western’s commitment is to provide the learning environment, and broader learning environment, where ‘community’, however defined, is part of the learning experience. These experiences and perspectives will enhance knowledge and competencies, leading to greater opportunities for Western students as they initiate their careers in the increasingly global workplace.